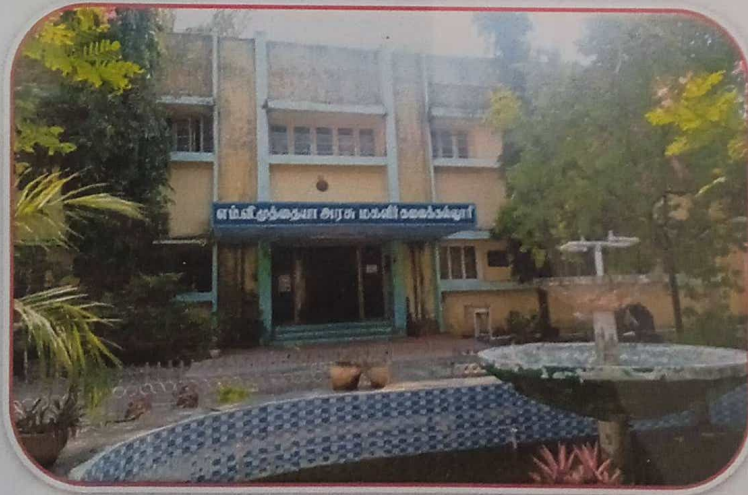




எம்.வி.முத்தையா அரசு மகளிர் கலைக்கல்லூரி
M.V. Muthiah Government Arts College for Women
(Affiliated to Mother Teresa Women's University, Kodaikanal)
Re-accredited with 'A' Grade by NAAC
Dindigul - 624001, Tamilnadu

GREEN AUDIT REPORT 2021-2022



SUBMITTED BY
DEPARTMENT OF BOTANY

M.V.MUTHIAH GOVERNMENT ARTS COLLEGE FOR WOMEN

DINDIGUL -624 001

GREEN AUDIT-2021-2022

PREPARED BY

DEPARTMENT OF BOTANY

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SUBMITTED TO

PRINCIPAL

SUBMITTED BY

EXPERT COMMITTEE

ACKNOWLEDGEMENTS

Dr.J.P.NIKKITHA, ASSISTANT PROFESSOR AND HEAD, DEPARTMENT OF BOTANY, M.V.MUTHIAH

GOVT. ARTS COLLEGE FOR WOMEN, DINDIGUL, IS VERY MUCH THANKFUL TO PRINCIPAL *Dr.D.LAKSHMI* FOR

MOTIVATING US TO CONDUCT THE GREEN AUDIT AND ALSO GRATEFUL TO ALL HEAD OF THE DEPARTMENTS,

BURSAR, SUPERINTENDENT AND ALL OFFICE STAFF MEMBERS.

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1. About the College

M. V. Muthiah Government Arts college for women, Dindigul was established in the year 1966. The college is Reaccredited with Grade "A" by NAAC. The college has been providing quality education to the rural students in and around Dindigul District. The college offers 13 UG programmes, 11 PG programmes and 7 Departments are recognized for conducting M.Phil., Research Programmes. The college has almost 3300 students on its rolls in various programmes. The College campus is about 40 acres which include both built up area and open space.

2. About Botanical Garden

Of the 40 acres of the college, 17 acres are exclusively covered by Botanical Garden that has been established in September, 2016. This Botanical Garden is the first of its kind in Government Arts and Science College for Women, Tamil Nadu. The trees present in the premises and the botanical garden make an excellent green ecosystem in the college.

3. Objectives of Green Campus

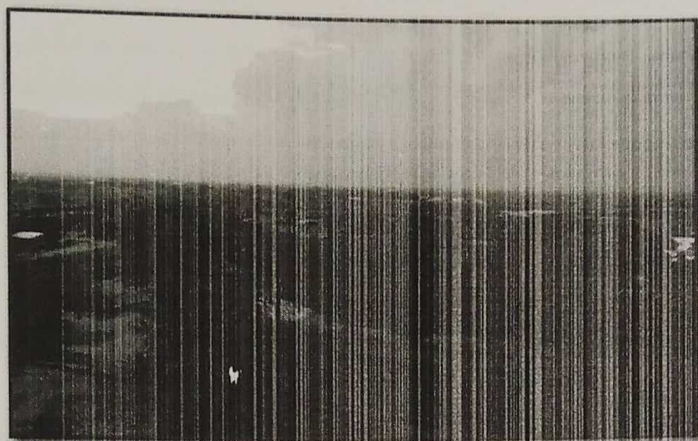
The development of urban area due to the necessity of increased population on another side reduces the green coverage of our natural environment. Growing of tree species wherever possible not only provides a healthy life style for human population but also acts as a habitat for other species of plants and animals that is vital for the living environment.

The objectives of maintaining green covering of the campus are

- Providing a healthy environment in college campus
- Enhancing the awareness towards ecosystem and environmental protection.
- Creating awareness on cleanliness and pollution control.
- Making the students to study the species of plants, birds, insects and other small animals and improving their knowledge on biodiversity
- Reducing the noise and air pollution.



Aerial Photographs of M. V. Muthiah Govt. College(W), Botanical Garden



Aerial Photograph of M. V. Muthiah Govt. College(W), Premises

4. Number of plants and important plant species of College Campus

4.1. Number of species in the premises

There are a total number of 444 plants maintained in the college premises. 46 different plant species covers the total number of plants (444) of premises. The plants are from important herbs, shrubs and tree species of different categories (medicinal, ornamental and etc.). The habit of plants varied from herb, shrub, tree, climber and also epiphyte. There are a total of 330 tree species, 75 shrubs, 31 herbs, 6 climbers and 2 epiphytes. The details of plants species such as their botanical name, local and common names and corresponding families are given in Table 1.

Table 1. List of plants species present in the college premises

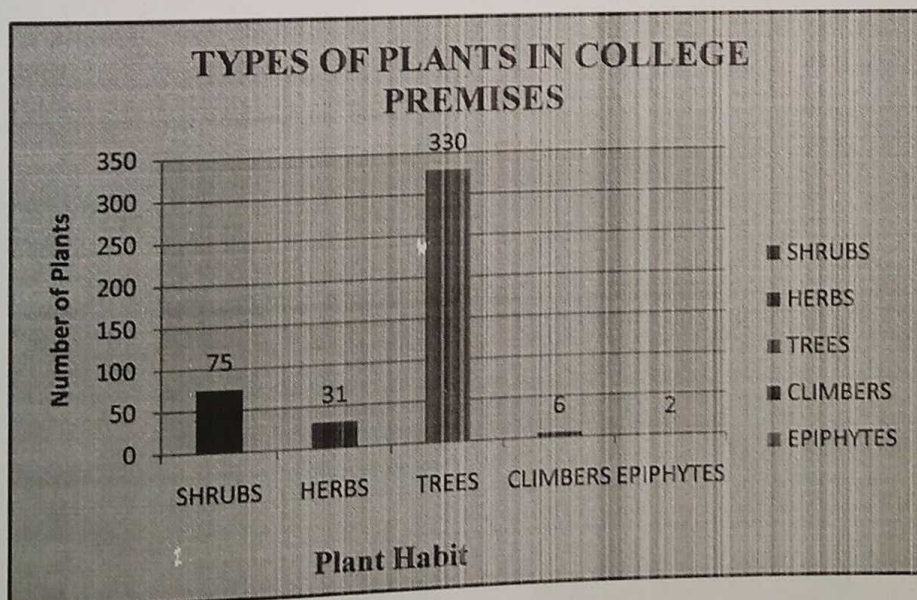
Botanical Name	Common Name	Vernacular Name	Family	Total Number
<i>Pithecellobium dulce</i>	Madras Thorn Manila Tamarind	Kodukkaapuli	Fabaceae	17
<i>Albizia lebbek</i>	Siris Tree	Vagai	Fabaceae	5
<i>Syzygium cumini</i>	Java Plum	Naval	Myrtaceae	12
<i>Morinda tinctoria</i>	Indian Mulberry	Manjanathi	Rubiaceae	10
<i>Ficus religiosa</i>	Sacred Fig	Arasamaram	Moraceae	6
<i>Bougainvillea spectabilis</i>	Great bougainvillea	Kakithapoo	Nyctaginaceae	4

<i>Acacia leucophloea</i>	White-barked acacia	Velvelam	Fabaceae	3
<i>Senna siamea</i>	Kassod Tree	Manjalkonnai	Fabaceae	15
<i>Mangifera indica</i>	Mango Tree	Mamaram	Anacardiaceae	4
<i>Azadirachta indica</i>	Neem Tree	Veppamaram	Meliaceae	57
<i>Monoon longifolium</i>	Indian mast tree	Nettulingam	Annonaceae	15
<i>Eucalyptus globulus</i>	Southern blue gum	Thailamaram	Myrtaceae	14
<i>Bombax ceiba</i>	Malabar Silk Cotton Tree	Elava Maram	Malvaceae	1
<i>Pongamia pinnata</i>	Indian Beech Tree, Pongame Oil Tree	Pungan	Fabaceae	53
<i>Ixora coccinea</i>	Jungle Geranium	Vedchi /Idly poo	Rubiaceae	7
<i>Thespesia populnea</i>	Portia tree	Poovarasam	Malvaceae	5
<i>Bauhinia purpurea</i>	Butterfly tree	Mantharai	Fabaceae	3
<i>Caesalpinia pulcherrima</i>	Peacock flower	Mayil konrai	Caesalpinaceae	6
<i>Morinda citrifolia</i>	Great Morinda	Ven Nuna	Rubiaceae	13
<i>Ficus sycomorus</i>	Sycamore Fig	Aathi maram	Moraceae	6
<i>Ziziphus jujuba</i>	Jujube	Elanthi	Rhamnaceae	8
<i>Vanda tessellata</i>	Grey Vanda	Kantanakuli	Orchidaceae	2
<i>Opuntia sps.</i>	Prickly pear	Sapathikalli	Cactaceae	3
<i>Cassia fistula</i>	Golden Shower Tree	Sarakonrai	Fabaceae	47
<i>Tabernaemontana divaricata</i>	Crepe Jasmine	Nandiar Vattai	Apocynaceae	6
<i>Tecoma stans</i>	Yellow elder	Thanga arali	Bignoniaceae	3

<i>Catharanthus roseus</i>	Madagascar Periwinkle	Nithya kalyani	Apocynaceae	5
<i>Nerium oleander</i>	Oleander	Arali	Apocynaceae	3
<i>Crotons sps.</i>	Crotan	Crotan	Euphorbiaceae	2
<i>Muntingia calabura</i>	Cotton Candy Berry	Seenipazha sedi	Muntingiaceae	3
<i>Acacia auriculiformis</i>	Ear leaf tree	Kaththi Karuvel	Fabaceae	4
<i>Phyllanthus reticulatus</i>	Black honey shrub	Pula Chedi	Phyllanthaceae	2
<i>Prosopis cineraria</i>	Spunge Tree	Vanni maram	Fabaceae	7
<i>Melia dubia</i>	Malabar Neem	Malai vembu	Meliaceae	5
<i>Datura metal</i>	Horn of Plenty plant	Oomathai	Solanaceae	3
<i>Abutilon indicum</i>	Indian Mallow	Thuthi	Malvaceae	13
<i>Delonix elata</i>	Creamy Peacock Flower	Vadanarayani	Fabaceae	4
<i>Anisomeles malabarica</i>	Malabar Calmint	Paeimiratti	Lamiaceae	4
<i>Calotropis gigantea</i>	Giant Calotrope	Erukku	Apocynaceae	5
<i>Vitex negundo</i>	Five-leaved Chaste Tree	Nochi	Verbenaceae	7
<i>Delonix regia</i>	Flame Tree	Semmayil - Kondrai	Fabaceae	9
<i>Acer saccharinum</i>	Silver Maple Tree	-	Sapindaceae	2
<i>Terminalia catappa</i>	Indian Almond	Nattuvadumai/ Vadham	Combretaceae	5
<i>Ficus benghalensis</i>	Banyan Tree	Aalamaram	Moraceae	4
<i>Euphorbia virosa</i>	Gifboom tree	Kalli chedi	Euphorbiaceae	2
<i>Lantana camara</i>	West Indian Lantana	Unni chedi	Verbenaceae	3

<i>Ocimum sanctum</i>	Holy basil	Thulasi	Lamiaceae	2
<i>Ocimum basilicum</i>	Great basil	Thiruneetru Pachilai	Lamiaceae	2
<i>Solanum trilobatum</i>	Red Pea egg plant	Thoodhuvalai	Solanaceae	2
<i>Cissus quadrangularis</i>	Adament Creeper	Pirandai	Vitaceae	2
<i>Coleus aromaticus</i>	Mexican Mint	Omavalli	Lamiaceae	4
<i>Centella asiatica</i>	Indian Pennywort	Vallarai	Apiaceae	10
<i>Bryophyllum pinnatum</i>	Life/Air Plant	Ranakalli	Crassulaceae	2
<i>Dalbergia latifolia</i>	Indian Rosewood	Thodhkathi	Fanaceae	2
<i>Alstonia scholaris</i>	Blackboard Tree	Aezhilaipalai	Apocynaceae	1
			TOTAL	444

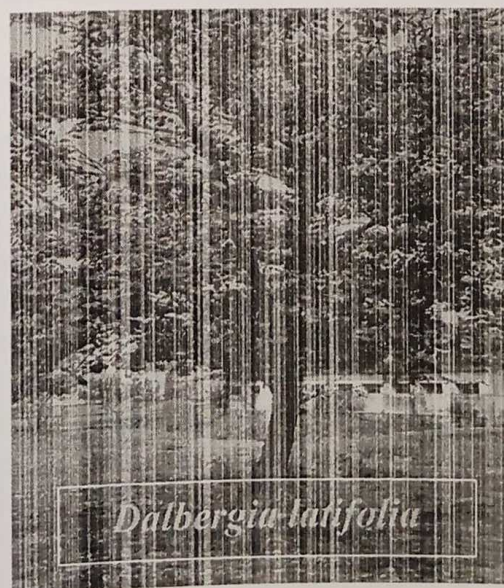
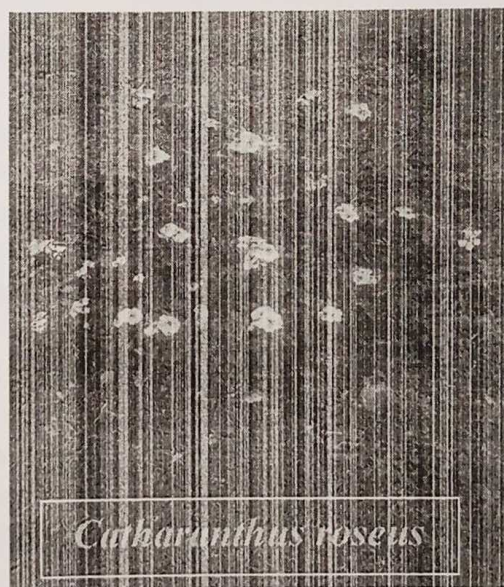
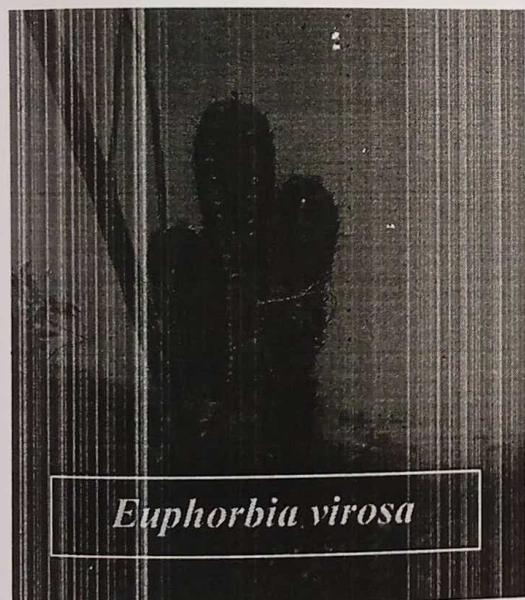
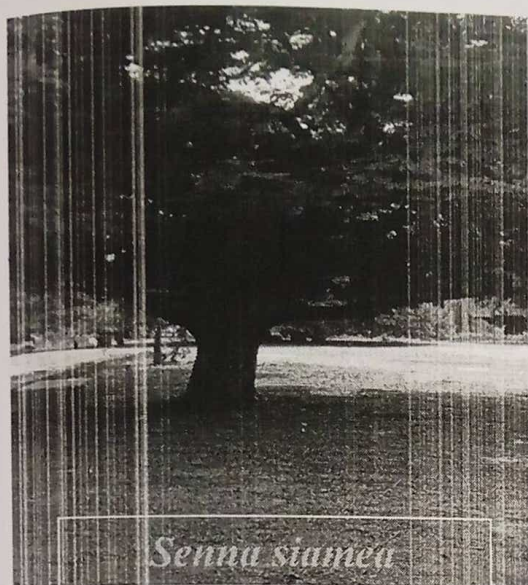
4.2 Key species of plants present in the premises



There are important medicinal herbs like *Catharanthus roseus*, *Ocimum sanctum*, *O. basilicum*, *Solanum trilobatum*, *Centella asiatica*, *Anisomeles malabarica*, *Coleus aromaticus* and *Bryophyllum pinnatum* maintained in the college. Important medicinal shrubs like *Morinda tinctoria*, *Datura metel*, *Abutilon indicum*, *Vitex negundo* and ornamental shrubs like *Tecoma*

stans, *Ixora coccinea*, *Crotons*, *Nerium oleander* and Climber like *Bougainvillea spectabilis* are also grown in the college. Important tree species present in the premises are *Ficus religiosa*, *F. benghalensis*, *Senna siamea*, *Acacia leucophloea*, *A. auriculiformis*, *Melia dubia*, *Delonix elata*, *D. regia* and *Terminalia catappa*.





4.3. Number of species in the Botanical Garden

There are a total number of about 2012 plants maintained in the botanical garden of our college. Of these 2012 plants, 1983 plants are documented and a very few plants could not be identified. The plants are covered by 60 different plant species. The majority of (more than 95%) the plants consists tree species and the remaining are shrubs. These different species are represented by a total of 29 different families. The details such as botanical name, local and common names and corresponding families of the plants present in the garden are listed out and given in Table 2.

Table 2. List of plant species present in the College Botanical Garden

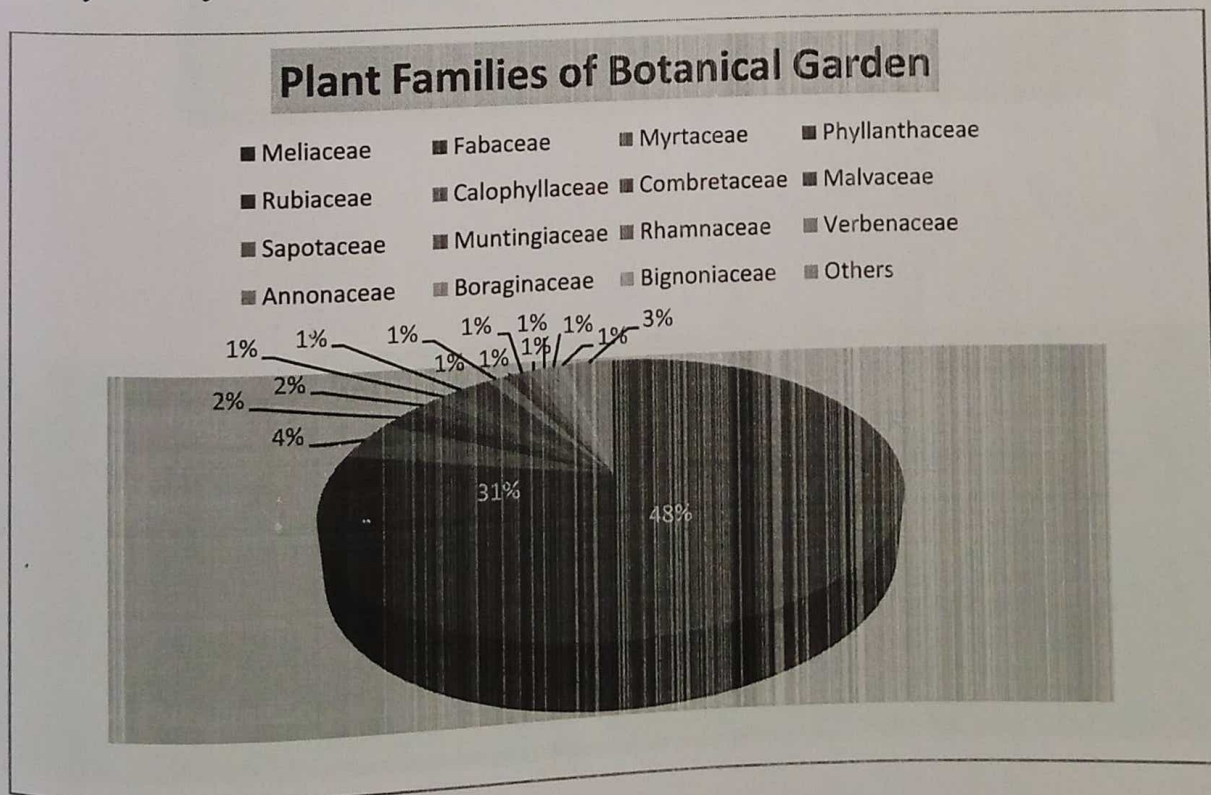
Botanical Name	Common Name	Vernacular Name	Family	Total Number
<i>Pithecellobium dulce</i>	Madras Thorn Manila Tamarind	Kodukkaapuli	Fabaceae	27
<i>Albizia lebbbeck</i>	Siris Tree	Vagai	Fabaceae	13
<i>Syzygium cumini</i>	Java Plum	Naval	Myrtaceae	73
<i>Tectona grandis</i>	Teak	Thekku	Verbenaceae	13
<i>Morinda tinctoria</i>	Indian Mulberry	Manjanathi	Rubiaceae	35
<i>Butea monosperma</i>	Flame of the Forest	Palaasu	Fabaceae	7
<i>Acacia leucophloea</i>	White-barked acacia	Velvelam	Fabaceae	26
<i>Azadirachta indica</i>	Neem Tree	Veppamaram	Meliaceae	941
<i>Monoon longifolium</i>	Indian mast tree	Nettulingam	Annonaceae	6
<i>Eucalyptus globulus</i>	Southern blue gum	Thailamaram	Myrtaceae	7
<i>Pongamia pinnata</i>	Indian Beech Tree, Pongame Oil Tree	Pungan	Fabaceae	352
<i>Thespesia populnea</i>	Portia tree	Poovarasam	Malvaceae	14
<i>Tamarindus indica</i>	Tamarind Tree	Puliamaram	Fabaceae	128

<i>Aegle marmelos</i>	Wood apple Tree	Vilvam	Rutaceae	7
<i>Punica granatum</i>	Pomegranate	Madhulai	Lythraceae	2
<i>Leucaena leucocephala</i>	River Tamarind	Savundal	Fabaceae	2
<i>Millingtonia hortensis</i>	Indian Cork Tree	Maramalli	Bignoniaceae	9
<i>Bauhinia variegata</i>	Orchid Tree	Mantharai	Fabaceae	5
<i>Lannea coromandelica</i>	Indian ash tree	Odhiyan	Anacardiaceae	8
<i>Pterocarpus santalinus</i>	Red sanders	Semmaram	Fabaceae	20
<i>Michelia champaca</i>	Champak	Senbagam	Magnoliaceae	5
<i>Calophyllum inophyllum</i>	Alexandrian Laurel Tree	Punnai	Calophyllaceae	27
<i>Phyllanthus acidus</i>	Star gooseberry	Arinelli	Phyllanthaceae	11
<i>Phyllanthus emblica</i>	Gooseberry	Nelli	Phyllanthaceae	32
<i>Crescentia alata</i>	Calabash	Thiruvodu	Bignoniaceae	2
<i>Diospyros ebenum</i>	Ebony	Karungali	Ebenaceae	3
<i>Ficus carica</i>	Fig	Athi	Moraceae	4
<i>Couroupita guianensis</i>	Cannon ball tree	Nagalingam	Lecythidaceae	3
<i>Swietenia macrophylla</i>	Mahogany	Mahakani	Meliaceae	7
<i>Prunus dulcis</i>	Almond	Vadhumai	Rosaceae	3
<i>Sterculia foetida</i>	Wild almon	Poothakarappan	Malvaeae	3
<i>Cordia dichotoma</i>	Indian Cherry	Naruvili	Boraginaceae	11

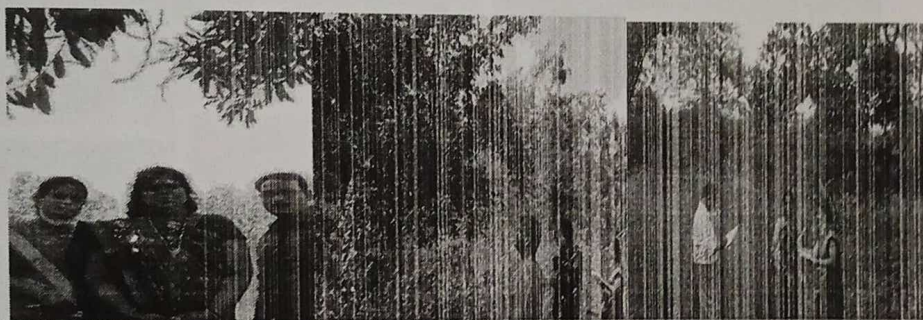
<i>Annona reticulata</i>	Wild sweet sop	Ramar Seethapazham	Annonaceae	7
<i>Wrightia tinctoria</i>	Dyer's oleander	Veppalai	Apocynaceae	4
<i>Mimusops elengi</i>	Spanish Cherry	Magizham	Sapotaceae	5
<i>Clusia rosea</i>	Autograph tree	-	Clusiaceae	2
<i>Achras sapota</i>	Sapodilla	Sapota	Sapotaceae	3
<i>Manilkara hexandra</i>	Ceylon Iron Wood	Ulakkaipalai	Sapotaceae	14
<i>Malva pentandra</i>	Mallow tree	Panchu maram	Malvaceae	8
<i>Psidium guajava</i>	Guava	Koyya Maram	Myrtaceae	5
<i>Carica papaya</i>	Papaya	Pappali	Caricaceae	1
<i>Lagerstroemia speciosa</i>	Pride of India	Poomarudhu	Lythraceae	5
<i>Abrus precatorius</i>	Rosary Pea	Kundrimani	Fabaceae	3
<i>Elaeocarpus angustifolius</i>	Blue marble tree	Rudraksham	Elaeocarpaceae	2
<i>Terminalia chebula</i>	Black Myrobalan	Kadukkai	Combretaceae	2
<i>Terminalia bellirica</i>	Myrobalan	Thanrikai	Combretaceae	1
<i>Terminalia arjuna</i>	Arjun Tree	Marudhamaram	Combretaceae	2
<i>Strychnos potatorum</i>	Clearing Nut tree	Thetrankottai	Loganiaceae)	2
<i>Caesalpinia pulcherrima</i>	Peacock flower	Mayil konrai	Caesalpinaceae	5
<i>Ziziphus jujuba</i>	Jujube	Elanthi	Rhamnaceae	16

<i>Cassia fistula</i>	Golden Shower Tree	Sarakonrai	Fabaceae	18
<i>Muntingia calabura</i>	Cotton Candy Berry	Seenipazha sedi	Muntingiaceae	17
<i>Prosopis cineraria</i>	Spunge Tree	Vanni maram	Fabaceae	7
<i>Melia dubia</i>	Malabar Neem	Malai vembu	Meliaceae	7
<i>Vitex negundo</i>	Five-leaved Chaste Tree	Nochi	Verbenaceae	3
<i>Delonix regia</i>	Flame Tree	Semmayil - Kondrai	Fabaceae	12
<i>Terminalia catappa</i>	Indian Almond	Nattuvadumai/ Vadham	Combretaceae	21
<i>Ficus benghalensis</i>	Banyan Tree	Aalamaram	Moraceae	5
			TOTAL	1983

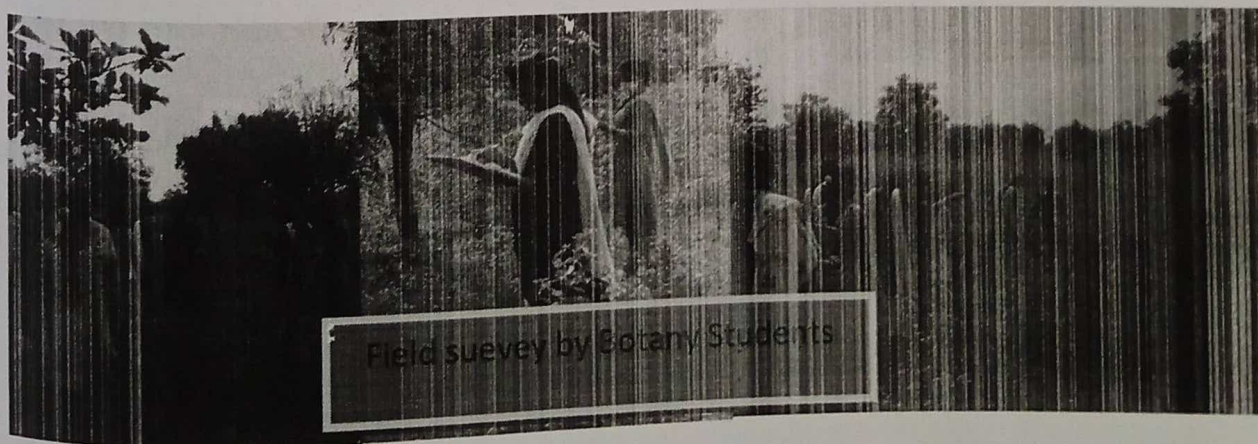
4.4. Major Plant families and important plant species of Botanical Garden



The different species maintained in the botanical garden are coming under a total number of 29 different families. The members of Meliaceae and Fabaceae (Figure 2) are found dominant in the Botanical garden. There are medicinally as well as economically important tree species like *Azadirachta indica*, *Syzygium cumini*, *Pongamia pinnata*, *Calophyllum inophyllum*, *Tamarindus indicus*, *Terminalia chebula*, *T. bellirica*, *Phyllanthus emblica* and *Melia dubia*, economically important plants like *Tectona grandis*, *Pterocarpus santalinus* and *Acacia leucophloea* are present in the garden. The Botanical garden to its fame and holiness contains sacred tree species like *Ficus religiosa*, *Ficus benghalensis*, *Aegle marmelos*, *Crescentia alata*, *Elaeocarpus angustifolius* and *Lagestroemia speciosa*



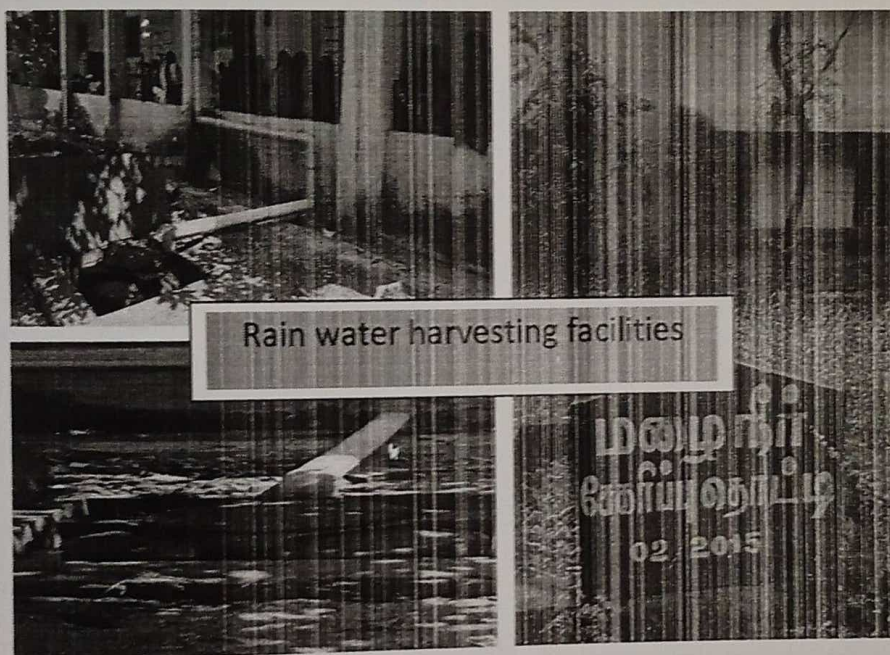
Survey of plants by HOD and faculties of Botany Department



Field survey by Botany Students

5. Maintenance of Plants and green coverage

The plants of the campus are maintained by Ecoclub, students and faculties of department of Botany and also other student and staff volunteers of our college. There is enough water supply provided by the college for the maintenance of the plant species. In addition to this, our college has proper rainwater harvesting system, which enables the storage and usage of rain water for garden purpose also.



6. Outcome of maintaining greening in Campus

The enormous plant diversity of the college premises and botanical garden of our college provides a rich biodiversity and great green coverage. The major outcomes from this are

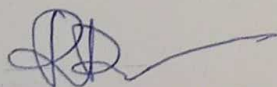
- About 3000 students benefitted by visiting this rich biodiversity of the campus during environmental study field visit
- Created awareness among students, their parents, faculties and staff member on Green and Clean environment
- Sequestration of CO₂ level and reduced noise pollution inside the college campus
- Enhanced ecosystem development and management

RECOMMENDATIONS

1. Eco Friendly Campus - To be Continued
2. Broken walls to be constructed
- 3.
- 4.
- 5.

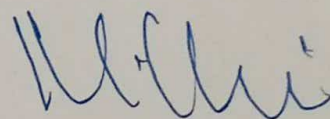
EXPERT COMMITTEE

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DATE: 30.4.2022

PLACE: DINDIGUL