

# Andhra Christian College, Guntur

(DAY, EVENING & P.G.)

Accredited with 'A' Grade by NAAC

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## **GREEN AUDIT / ENVIRONMENTAL AUDIT – [2022-2023]**

The objective of this Green Audit / Environmental Audit is to assess the current state of biodiversity and green cover in the college and to suggest ways to enhance it. The students used transect and quadrant methods to identify the different types of flora and fauna in the college. This audit also helps the students in gaining knowledge about the richness of nature through identifying the organisms. The staff and students made several surveys to assess both the quantitative and qualitative aspects. The survey indicates high biodiversity of plants and limited number of animal species. It is proposed to increase the number of plant and animal species to make college look more ecofriendly.

### **PURPOSE**

- To conduct a Biodiversity Audit on A.C College, Guntur campus and suggest measures for the improvement

### **AIMS**

- To identify the different types of plants and animals on the college campus
- Students through participating in this audit will not only identify the various species but also will be able to tabulate and analyze the data.
- To recommend ways to increase biodiversity on the college campus

### **PROCEDURE**

A comprehensive survey of the flora and fauna was carried out on the college campus spread over an area of 20 acres. The study was carried out from 03-01-2022 and 06-01-2022. Two batches of 10 students each of B.Sc., (CBZ) from A.C.College, Guntur, Guntur district were assigned to do the audit and they surveyed the entire area and identified the flora and fauna on the campus. Data was scientifically recorded and tabulated.

**List of Audited Plants on the campus for the academic year 2022-23**

| S.No. | Scientific name of plant         | Local Name           | Family        | Habitat<br>T/S/H/C | Uses         |
|-------|----------------------------------|----------------------|---------------|--------------------|--------------|
| 1     | <i>Parthenium hysterophorus</i>  | Carrot grass         | Asteraceae    | H                  | Medicinal    |
| 2     | <i>Acalypha indica</i>           | Indian mercury       | Euphorbiaceae | H                  | Medicinal    |
| 3     | <i>Sida acuta</i>                | Common wire weed     | Malvaceae     | H                  | Medicinal    |
| 4     | <i>Boerhaavia diffusa</i>        | Punarnava            | Nyctaginaceae | H                  | Medicinal    |
| 5     | <i>Euphorbia hirta</i>           | Asthma weed          | Euphorbiaceae | H                  | Medicinal    |
| 6     | <i>Cynodon dactylon</i>          | Bermuda grass        | Poaceae       | H                  | Medicinal    |
| 7     | <i>Citrus aurantifolia</i>       | Key lime             | Rutaceae      | T                  | Medicinal    |
| 8     | <i>Manilkara zapota</i>          | Sapota               | Sapotaceae    | T                  | Edible Fruit |
| 9     | <i>Murraya koenigii</i>          | Curry leaves         | Rutaceae      | T                  | Medicinal    |
| 10    | <i>Ziziphus zuzuba</i>           | Jujube               | Rhamnaceae    | S                  | Medicinal    |
| 11    | <i>Croton bonplandianum</i>      | Ban tulasi           | Euphorbiaceae | H                  | Medicinal    |
| 12    | <i>Vernonia cinerea</i>          | Purple fleabane      | Asteraceae    | H                  | Medicinal    |
| 13    | <i>Tridax procumbens</i>         | Tridax daisy         | Asteraceae    | H                  | Medicinal    |
| 14    | <i>Ruellia tuberosa</i>          | Cracker plant        | Acanthaceae   | H                  | Medicinal    |
| 15    | <i>Ocimum sanctum</i>            | Tulasi               | Lamiaceae     | H                  | Medicinal    |
| 16    | <i>Cocos nucifera</i>            | Coconut              | Arecaceae     | T                  | Medicinal    |
| 17    | <i>Ixora chinensis</i>           | Scarlet jungle flame | Rubiaceae     | S                  | Ornamental   |
| 18    | <i>Abutilon indicum</i>          | Indian mallow        | Malvaceae     | S                  | Medicinal    |
| 19    | <i>Asparagus recemosus</i>       | Shatavari            | Asparagaceae  | S                  | Medicinal    |
| 20    | <i>Polyalthia longifolia</i>     | Naramamidi           | Annonaceae    | T                  | Ornamental   |
| 21    | <i>Cicca distica</i>             | Chinni usiri         | Euphorbiaceae | T                  | Medicinal    |
| 22    | <i>Cocos nucifera</i>            | Kobbari              | Arecaceae     | T                  | Edible       |
| 23    | <i>Albizia lebbeck</i>           | Dirisena             | Mimosaceae    | T                  | Ornamental   |
| 24    | <i>Millingtonia hortensis</i>    | Akasa malli          | Bignoniaceae  | T                  | Ornamental   |
| 25    | <i>Bauhinia variegata</i>        | Addaku               | Fabaceae      | T                  | Ornamental   |
| 26    | <i>Tabebuia rosea</i>            | Rosy trumpet         | Bignoniaceae  | T                  | Ornamental   |
| 27    | <i>Casuarina equisetifolia</i>   | Sarugudu             | Casuarinaceae | T                  | Fire wood    |
| 28    | <i>Borassus flabellifer</i>      | Thati                | Areaceae      | T                  | Toddy        |
| 29    | <i>Spathodia campanulata</i>     | Tulip tree           | Bignoniaceae  | T                  | Ornamental   |
| 30    | <i>Syagrus romanzoffiana</i>     | Queen palm           | Arecaceae     | T                  | Ornamental   |
| 31    | <i>Dalberzia sissoo</i>          | Indian Rose wood     | Fabaceae      | T                  | Ornamental   |
| 32    | <i>Wrightia tinctoria</i>        | Tooth ache plant     | Apocyanaceae  | T                  | Medicinal    |
| 33    | <i>Vitex negundi</i>             | Chinese chaste tree  | Lamiaceae     | T                  | Medicinal    |
| 34    | <i>Tecoma stans</i>              | Golden bells         | Bignoniaceae  | T                  | Ornamental   |
| 35    | <i>Rhaphidophora tetrasperma</i> | Mini monstera        | Araceae       | C                  | Ornamental   |



|    |                                  |                   |               |   |                    |
|----|----------------------------------|-------------------|---------------|---|--------------------|
| 36 | <i>Azadirachta indica</i>        | Neem tree         | Meliaceae     | T | Medicinal & Timber |
| 37 | <i>Bamboosa aridinarifolia</i>   | Bamboo            | Poaceae       | T | Timber             |
| 38 | <i>Pongamia pinnata</i>          | Kanuga            | Fabaceae      | T | Medicinal          |
| 39 | <i>Ceodea grandis</i>            | Lettuce tree      | Nyctaginaceae | T | Medicinal          |
| 40 | <i>Psidium guajava</i>           | Jama              | Myrtaceae     | T | Edible fruit       |
| 41 | <i>Cycas revoluta</i>            | Sago palm         | Cycadaceae    | T | Medicinal          |
| 42 | <i>Pritchardia pacifica</i>      | Fiji Fan Palm     | Arecaceae     | T | Ornamental         |
| 43 | <i>Bougainvillea spectabilis</i> | Kagithapu puvuu   | Nyctaginaceae | S | Ornamental         |
| 44 | <i>Ceiba pentandra</i>           | Booruga           | Malvaceae     | T | Economic           |
| 45 | <i>Dypsis lutescens</i>          | Areca palm        | Arecaceae     | T | Ornamental         |
| 46 | <i>Trichilia dregeana</i>        | Forest Mahogany   | Meliaceae     | T | Timber             |
| 47 | <i>Mangifera indica</i>          | Mango             | Anacardaceae  | T | Fruit              |
| 48 | <i>Leucaena leucocephala</i>     | Lead Tree         | Fabaceae      | T | Economic           |
| 49 | <i>Thuja orientalis</i>          | Chinese thuja     | Cupressaceae  | T | Medicinal          |
| 50 | <i>Syzygium cumini</i>           | Kala jamoon       | Myrtaceae     | T | Edible             |
| 51 | <i>Ixora chinensis</i>           | Nooru varahalu    | Rubiaceae     | S | Ornamental         |
| 52 | <i>Licuala grandis</i>           | Palasa palm       | Arecaceae     | T | Ornamental         |
| 53 | <i>Delonix regia</i>             | Gold mohar /Turai | Fabaceae      | T | Ornamental         |
| 54 | <i>Yucca gloriosa</i>            | Nabhi             | Asparagaceae  | S | Ornamental         |
| 55 | <i>Hibiscus rosasinensis</i>     | Mandara           | Malvaceae     | S | Ornamental         |
| 56 | <i>Syzygium jambos</i>           | Rose apple        | Myrtaceae     | T | Ornamental         |
| 57 | <i>Citrus aurantiifolia</i>      | orange            | Rutaceae      | T | Edible fruit       |
| 58 | <i>Adenium obesum</i>            | Desert rose       | Apocynaceae   | S | Ornamental         |
| 59 | <i>Catheranthus roseus</i>       | Billa ganneru     | Apocynaceae   | H | Medicinal          |
| 60 | <i>Tradescantia spathacea</i>    | Boat lilly        | Commelinaceae | H | Ornamental         |
| 61 | <i>Chrysanthemum indicum</i>     | Chemanthi         | Asteraceae    | H | Ornamental         |
| 62 | <i>Agave americana</i>           | Kalabanda         | Asparagaceae  | H | Medicinal          |
| 63 | <i>Murraya paniculata</i>        | Curry leaf        | Rutaceae      | T | Condiment          |
| 64 | <i>Allamanda cathartica</i>      | Butter cup        | Apocyanaceae  | S | Ornamental         |
| 65 | <i>Jasminum sambac</i>           | Malle puvvu       | Oleaceae      | S | Ornamental         |
| 66 | <i>Citrus lemon</i>              | Nimbu/ Nimma      | Rutaceae      | T | Medicinal          |
| 67 | <i>Bryophyllum pinnata</i>       | Ranapala          | Crassulaceae  | H | Ornamental         |
| 68 | <i>Euphorbia hirta</i>           | Mexican plant     | Euphorbiaceae | H | Medicinal          |
| 69 | <i>Ficus retusa</i>              | Peddajuvvi        | Moraceae      | T | Timber             |
| 70 | <i>Costus spiralis</i>           | Crepe ginger      | Costaceae     | H | Medicinal          |
| 71 | <i>Coleus barbatus</i>           | Gandh Moolika     | Lamiaceae     | H | Ornamental         |
| 72 | <i>Aloe vera</i>                 | Kalabanda         | Asphodelaceae | S | Medicinal          |
| 73 | <i>Andrographis paniculata</i>   | Nela vemu         | Acanthaceae   | H | Medicinal          |
| 74 | <i>Artemisia annua</i>           | Machipatri        | Asteraceae    | H | Medicinal          |

|    |                             |                 |                 |   |           |
|----|-----------------------------|-----------------|-----------------|---|-----------|
| 75 | <i>Centella asiatica</i>    | Saraswathi aaku | Apiaceae        | H | Medicinal |
| 76 | <i>Withania somnifera</i>   | aswagandha      | Solanaceae      | H | Medicinal |
| 77 | <i>Rauvolfia serpentina</i> | Sarpagandha     | Apocyanaceae    | S | Medicinal |
| 78 | <i>Acorus calamus</i>       | Vasa            | Acoraceae       | H | Medicinal |
| 79 | <i>Ruta graveolens</i>      | Sadapaku        | Rutaceae        | H | Medicinal |
| 80 | <i>Cassia alata</i>         | Seema tangedu   | Caesalpinoideae | S | Medicinal |
| 81 | <i>Gymnema sylvestris</i>   | Podapatri       | Apocyanaceae    | H | Medicinal |
| 82 | <i>Plumbago zeylanica</i>   | Chitrak         | Plumbaginaceae  | H | Medicinal |
| 83 | <i>Psoralea corylifolia</i> | Bavanchalu      | Fabaceae        | H | Medicinal |
| 84 | <i>Evolvulus alsinoides</i> | Vishnukranthi   | Acathaceae      | H | Medicinal |
| 85 | <i>Adathoda vasica</i>      | addasaram       | Acanthaceae     | H | Medicinal |
| 86 | <i>Uraria picta</i>         | Prishni parni   | Fabaceae        | H | Medicinal |

## DISCUSSION

The environmental audit conducted by the college for the year 2022-23 revealed the existence of many species of plants on the campus. Out of the plant species the trees outnumber the herbs and shrubs. Many flowering and Medicinal plants are seen to flourish in the campus. The college management has taken an active role in increasing the greenery on the campus. However there is scope for adding more plants as the college is huge and sprawling. By increasing the greenery of the college not only more animals are attracted to the trees for the shelter but also lead to increase in biodiversity and maintain the ecological balance.

## CONCLUSIONS AND RECOMMENDATIONS

This Green/Environmental Audit was completed as per the schedule and the data collected was systematically tabulated and analyzed in the above table. This audit helped very much to improve the knowledge, awareness and skills of students in conserving biodiversity.



## GREEN AUDIT CERTIFICATE

This is to certify that the staff of the Government Degree College for Women (A) and students and faculty of Andhra Christian College have conducted the green audit 05-01-2022 to 08-01-2022 for the academic year 2022-23 to assess the green initiative planning efforts and activities implemented on the college campus like plantation, biodiversity preservation and creating environmental awareness. The green audit proved that the campus is eco-friendly.

Place: Guntur

Date: 10-01-2022.

External Auditors:

1.   
**M. SANTOSH KUMARI, M.Sc., B.Ed.**  
**LECTURER IN BOTANY**  
**GOVT. COLLEGE FOR WOMEN (A)**  
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2.   
**DEVARAPALLI UMA**  
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3.



**Prof. K. MALLIKARJUNA**  
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**Co-Ordinator IQAC**  
**Andhra Christian College,**  
**GUNTUR.**

  
**Principal**  
**Andhra Christian College,**  
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DVV  
Clarification

Criterion: VII  
Metric: 7.1.3



**Mrs. D Uma, Lecturer in Botany, Government College for Women, Guntur, Visit to college for Green Audit**







**Mrs. D Uma, Lecturer in Botany, Government College for Women, Guntur, handed over the Green Audit Report to the Principal Dr. K. MOSES**



*[Signature]*  
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