



AP Pollution Control Board

GREEN AUDIT REPORT



CH.S.D.ST.THERESA'S COLEGE FOR WOMEN,
(AUTONOMOUS) ELURU
ELURU DISTRICT.



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Sr. Suseela, Controller of Examinations

Sr. Innyasiamma, AO

Mr. Sasi Bhushan Reddy – Site Engineer



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CONCEPT AND CONTEXT

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2019–20 onwards that all Higher Educational Institutions should submit an annual Green, Environment and Energy Audit Report. Green Audit is assigned to the Criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India that declares the institutions as Grade A, Grade B or Grade C according to the scores assigned at the time of accreditation. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through Carbon Footprint reduction measures.

In view of the NAAC circular regarding Green auditing, the College management decided to conduct an external environment assessment study by a competent external professional auditor. The green audit aims to examine environmental practices within and outside the College campus, which impact directly or indirectly on the atmosphere. Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of College/college environment. It was initiated with the intention of reviewing the efforts within the institutions whose exercises can cause risk to the health of inhabitants and the environment.

Through the green audit, a direction as how to improve the structure of environment and inclusion of several factors that can protect the environment can be commenced. This audit focuses on the Green Campus, Waste Management, Water Management, Air Pollution, Energy Management & Carbon Footprint etc. being implemented by the institution.



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INTRODUCTION

The rapid environmental degradation at local, regional and global level is real, which is leading us to global “Environmental poverty”. Stabilization of human population, adoption of environmentally sound and sustainable technologies, reforestation, and ecological restoration are crucial elements in creating an equitable and sustainable future for all humankind in harmony with nature. Thus, academic leaders must initiate and support mobilization of internal and external resources and knowledge so that their institutions respond to environmental challenges.

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience.

Green audit can be a useful tool for a college to determine how and where they are using the most energy or water or resources; the college can then consider how to implement changes and make savings. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve waste minimization plan. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of Green impact on campus. If self enquiry is a natural and necessary outgrowth of a quality education, it could also be stated that institutional self enquiry is a natural and necessary outgrowth of a quality educational institution. Thus it is imperative that the college evaluate its own contributions toward a sustainable future. As environmental sustainability is becoming an increasingly important part of the curriculum, the need for such an educational institution is becoming more and more prevalent.





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Ch.S.D.St.Theresa's Autonomous College for Women (A), Eluru is a prestigious Institution deeply concerned and unconditionally believes that there is an urgent need to address these fundamental problems and reverse the trends. We deeply subscribe to the fact that humans should be stewards of Mother Nature and that we all have a profound responsibility to protect the earth's resources in perpetuity. Being a premier institution of higher learning, the College has resolved to play a major role in the education, research, policy formation, and information exchange necessary for a sustained environmental campaign.

The current environmental audit represents continuity of our effort to maintain environmental sustainability on the campus. For this project, we defined environmental sustainability as, all campus activities will sustain resources and cause no or less damage to the environmental integrity of local, regional and global ecosystems, and ensure continued availability of all natural resources to the future generations.

The audit was conducted by a team of faculty and students lead by Mr, Environmental Engineer, Andhra Pradesh, Pollution Control Board, Eluru District. It is indeed the reflection to exercise leadership in promoting sustainability and an institutional obligation to instill in all graduates and each of us, and those in the broader community a sense of environmental stewardship. This commitment leads to action that primes to transformation and real on field change. We have conducted this audit not only for the institution itself, but just as importantly to be a role model institution for others to emulate and bring the environmental concerns and related mitigating measures to the public of Eluru Municipal Corporation, Eluru District, the State of Andhra Pradesh.





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OVER VIEW OF THE COLLEGE

Ch.S.D.St.Theresa's College for Women is a pioneer Institution in the cause of Women's education. Established in 1953 by the pioneering team of the Sisters of St. Ann of Providence, Italy, with a handful of students at a time when women's education was looked down with disdain, St. Theresa's College has today blossomed into a trend-setter in education and has become a coveted destination for the girl students who aspire to scale the ladder of success. Granted autonomy by UGC in 1987, the Institution has conscientiously adapted itself to the dynamic needs of the learners. Conferment of 'A grade' by NAAC Four consecutive times since 1998 and CPE Grant by UGC in 2006 are strong indications of the visionary leadership and commitment of the Institution to the cause of education.

St. Theresa's is a place where skills and passion coincide with the needs of the society. The Motto of the institution 'Tamasoma Jyothirgamaya' encapsulates the charism of attempting to transform women into beacons of light from ignorance and darkness thereby becoming worthy assets to society and the nation. The institution has been recognized as a well equipped one catering chiefly to women students hailing from rural backgrounds and economically disadvantaged sections. It has earned a reputation of being able to train students of all streams to be technologically savvy and computer literate. Equipped with state of art infrastructure, spacious class rooms, excellent laboratories, audio-visual aids, smart class rooms, well-stocked libraries and a band of dedicated and qualified teaching fraternity the institution has streaked blazing trails across the map of women's education in A.P.





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Ch.S.D.St.Theresa's College designed with cool and spacious corridors. The College shares an architectural affinity with other colonial educational institutions of the country. In the past six decades, as the College has grown, several other buildings have been added in consonance with its original design.

The College is well known for its discipline, value-oriented academic acumen, conducive and student-friendly ambience, innovative program options and job oriented skill training. A rich array of opportunities is provided through co-curricular and extra-curricular programs that transform and empower students to realize their full potential. With state-of-the-art physical facilities, e-class rooms, virtual labs, Digital Museum, resourceful library, caring guidance and exuberant synergy of the faculty, passion and commitment of the management, St.Theresa's is one of the best global Institutions.

With a mission to create empowered women hailing from economically and socially disadvantaged strata of society, St.Theresa's College for Women strides purposefully forward into its seventh decade of inception standing as a model institution for Higher education. The brilliant leadership displayed by administrators has ingrained the ideals of discipline and progressive thinking transforming learning into a dynamic process ever evolving to suit changing trends.

Excellence has been a watchword in all activities related to campus life. Selected as the Best College for NSS activities for many times consecutively. Best College for NCC programmes, one of the best in Cultural activities and Sports and Games, St.Theresa's trains its students to be all rounders. The St.Theresa's Centre for International studies takes a pro active role in providing consultancy services, coaching for entry exams, career guidance and counseling for studies and careers abroad, conducting workshops and carrying out collaborative activities with consultancy agencies abroad.

The College offers liberal education in social sciences, humanities and basic sciences to more than 4000 students. The faculty, renowned for its meritorious profile and versatile talent, is dedicated to the cause of liberal education. Through their three years at Ch.S.D.St.Theresa's our students develop a sense of social responsibility, intellectual rigour, and practical knowledge. They develop communication, analytical and problem-solving skills, and a demonstrated ability to apply their education to our complex and diverse world.





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Vision

To create personally mature, professionally equipped and service oriented integrated women leaders committed to excellence and trained on the lines of Gospel truths to become assests to the Community and Nation.

Mission

True to the Theresian Motto “From Darkness to Light” we strive to create integrated women leaders, empowered and committed to excellence, pro-active, innovative custodians of culture and heritage, channels of human values and lights of God’s transforming love.



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Objectives

The overall goals of this project:

- (1) To introduce students to real concerns of environment and its sustainability of the Campus as a study site
- (2) To analyze the pattern and extent of resource use on the Campus
- (3) To establish a baseline data to assess future sustainability plans
- (4) To make the College a more environmentally sustainable institution of higher learning
- (5) To bring out a status report on environmental and Energy compliance.

This environmental audit is the reflection of institutional sustainability, planning process which quantifies whether or not current and/or future environmental efforts are actually making a difference to our resolve to eradicate environmental poverty.

There are many reasons for undertaking an Environment audit including:

- To introduce and aware students to real concerns of environment and its Sustainability.
- To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use of the campus.
- To reduce air pollution by planting and maintaining more trees in and around the College campus.
- To provide good quality potable water and improve fertility of the soil
- To identify behavioral change opportunities by evaluating eco-friendly operations.

In recent time, the Green Audit of an institution has been becoming a paramount important for self assessment of the institution which reflects the role of the institution in mitigating the present environmental problems.

Therefore, the purpose of the present green audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards.

The Environment audit process includes 5 categories.

- 1.Air Issues
- 2.Water Issues
- 3.Waste
- 4.Biodiversity
- 5.Environment

Methodology:

The students were divided into five groups and under the guidance of the teaching staff of the Department of Zoology and Botany, each group collected data on the assigned topics. The assigned topics were as follows.

1. Identification of Plant species and Bio-diversity.
2. Analysis of Water quality and usage.
3. Analysis of Energy consumption and costs.
4. Analysis of waste generation and disposal all the data were united and based on these, a report was formulated.

AUDIT ANALYSIS

1.1.General Information

Despite the institution's substantial growth in student, faculty, and staff populations during the last decade, the college has undertaken several steps to move towards becoming environmentally sensitive and a more sustainable campus. The campus is spread over 7 acres of sprawling campus in Sanivarapupet panchayati and is a heritage landmark of the old world amidst canopy of trees. The College has nearly 2500 students and 135 faculty. The institution is committed to academic excellence and scholarship, and provides students opportunities to develop as scientific leaders and Alumina of the college settled all over the World.

1. Does any Green Audit conducted earlier?

Yes. This is the second Green Audit conducted by the College

2. What is the total strength of the Institute?

Category	Male	Female	Total
Students		1451	1451
Teaching Staff	5	93	98
Non Teaching staff	19	34	53

3. What is the Total number of working days per annum?

There are 180 working days per year

4. Where is the campus located?

The campus is located at Govaravaram, Eluru-534006

5. Which of the following are available in the campus?

<i>Garden area</i>	Available
<i>Playground</i>	Available
<i>Kitchen</i>	Available
<i>Toilets</i>	Available
<i>Garbage Or Waste Store</i>	Available
<i>Yard</i>	Available
<i>Laboratory</i>	Available
<i>Canteen</i>	Available
<i>Hostel Facility</i>	Available
<i>Guest House</i>	Available

6. Which of the following are found near your institute?

Municipal Dump yard	Not in the Vicinity of Institute
Garbage Heap	No Garbage heaps
Public Convenience	Public Convenience is available
Sewer line	Approximately 2 KM sewer line within campus
Stagnant water	No stagnant water
Open drainage	No
Industry	No
Bus/Railway station	Bus Connectivity

1.2. Waste minimization and Recycling

1. Does your institute generate any waste? If so, what are they?

Yes, Solid Waste, Canteen waste, Paper waste, Plastic, horticulture waste, laboratory waste, e-waste etc

2. What is the approximate amount of waste generated per day? (in KG approx.)

Biodegradable waste-25 Kg

Non-biodegradable waste-1 Kg

3. How is the waste managed in the institute? By Composting, Recycling, Reusing, others, specify

-Composting is done for horticulture waste management (vermicomposting, Nadoc compost)

-Aerobic composting is done for bio-degradable waste management.

-Diluted solutions are used instead of concentrated solutions in laboratories.

-One side printed paper is reused for internal communication.

-Solid waste is taken by Municipal Corporation

-Single use plastic is banned in the campus.

-Paper recycling plant is installed in the campus.

4. Do you use recycled paper in institute?

Yes, There is fully functional paper recycling plant in the campus

5. How would you spread the message of recycling to others in the community?

Following are the ways through which college is spreading the awareness about recycling

-Competitions on PPT Presentation, poster painting, exhibitions for School children

-Conducted Solid Waste Management Municipal Project

-Campaigns

-Rallys

-Webinars, Workshops and Seminars etc.

-Waste Plastic collection bank installed in the campus

6. Can you achieve zero garbage in your institute? If yes, how?

Not yet achieved, Possible through waste management policy and planning

1.3 GREENING THE CAMPUS

1. Is there a garden in your institute?

Yes, The campus has well maintained gardens

2. Do students spend time in the garden?

Yes, Students spend around 2-4 Hours per week. Specially students maintain organic Kitchen garden and Agricultural fields.

3. Total number of Plants in Campus?

Plant type with approx. count

Fully grown trees: 866

Small trees: 491

Hedge plants: 3838

Grass Cover: -----Sq. mts

4. Is the College campus having any Horticulture Department? (If yes, give details)

Yes, There is an Agricultural Department and Botany department and Ecoclub members

5. How many Tree Plantation Drives organized by campus per annum?

10 plantation drives were conducted by the collage every year. Total 50 trees and 100 hedge plants planted in every financial year with more than 85% survival rate.

6. Is there any Plant Distribution Program for Students and Community?

Yes, College has a practice where all guests are given a planter as a gift rather than a bouquet of flowers. Besides this landscape, plantation is also done in adopted villages and Sanivarapu pet, Kattasubb Rao thota by the college.

7. Is there any Plant Ownership Program?

STC Ecoclub and Botany Department encouraged students to adopt a tree or plants in the campus.

Plant Biodiversity:

A scientific survey of flora and fauna of the campus is carried out covering rainy, winter and summer seasons during 2015-16. This biodiversity/green audit has revealed more than 200 species of plants consisting of 25 species of Algae, 2 Bryophytes, 5 Pteridophytes, 2 Gymnosperms and 166 species of Angiosperms besides number of cultivated species.

Faculty and students have taken up a no. of tree plantation activities like Vanam Manam Programme, Neeru Chettu, Jalashakthi under many committees like Eco Club, NSS, NCC, Red Ribbon Club, Botany Department etc.

Vegetation Analysis in Ch.S.D.St.Theresa's College for Women (A), Eluru

A) Names of the Plants in College Campus

S.No	Name of the Plant	Family	Local Name	Habit	No.
1	<i>Cissus quadrangularis</i>	Vitaceae	Nalleru	Climber	2
2	<i>Albizia lebeck</i>	Mimosaceae	Dirisina chettu	Tree	3
3	<i>Emblica officinalis</i>	Euphorbiaceae	Rathi usiri	Tree	3
4	<i>Ficus bengalensis</i>	Moraceae	Marri chettu	Tree	2
5	<i>Shorea robusta</i>	Dipterocarpaceae	Sal chettu	Tree	1
6	<i>Zizipus jujube</i>	Rhamnaceae	Regu chettu	Tree	2
7	<i>Sapindus emarginatus</i>	Sapindaceae	Kunkudu chettu	Tree	3
8	<i>Hibiscus rosa sinensis</i>	Malvaceae	Mandara	Shrub	50
9	<i>Nerium odorum</i>	Apocynaceae	Ganneru	Shrub	24
10	<i>Vinca rosea</i>	Apocynaceae	Billa ganneru	Herb	20
11	<i>Bougainvillea spectabilis</i>	Nyctaginaceae	Kagitham puulu	Climber	25
12	<i>Caesalpine pulcherrima</i>	Caesalpinaceae	Ratnagandhi	Shrub	8
13	<i>Cassia occidentalis</i>	Caesalpinaceae	Kasindha	Herb	4
14	<i>Cassia auriculata</i>	Caesalpinaceae	Tangedu	Shrub	2
15	<i>Crotalaria verrucosa</i>	Fabaceae	Janumu	Herb	2
16	<i>Tephrosia maxima</i>	Fabaceae	Vempali	Herb	15
17	<i>Eucalyptus globulus</i>	Myrtaceae	Jamoil	Tree	50
18	<i>Millingtonia hortensis</i>	Bignoniaceae	Kadamalli	Tree	15
19	<i>Jasminum sambac</i>	Oleaceae	Jasmine	Shrub	20
20	<i>Tagetes petula</i>	Asteraceae	Banthi	Herb	200
21	<i>Tagetes erecta</i>	Asteraceae	Karapu banthi	Herb	100
22	<i>Chrysanthemum indicum</i>	Asteraceae	Chamanthi	Herb	100
23	<i>Artabotrys odoratissimus</i>	Annonaceae	Sampenga	Climber	2
24	<i>Ficus religiosa</i>	Moraceae	Ravi	Tree	2
25	<i>Tectona grandis</i>	verbenaceae	Teak	Tree	110

26	<i>Mimusops elengi</i>	Sapotaceae	Bogada	Tree	23
27	<i>Cocos nucifera</i>	Arecaceae	Coconut	Tree	250
28	<i>Areca catechu</i>	Arecaceae	palm	Tree	50
29	<i>Agave americana</i>	Asparagaceae	Kittali	Herb	6
30	<i>Murraya koenigii</i>	Rutaceae	Curry leaves	Shrub	20
31	<i>Citrus aurantifolia</i>	Rutaceae	Nimma	Shrub	2
32	<i>Ocimum sanctum</i>	Lamiaceae	Tulasi	Herb	70
33	<i>Ocimum basilicum</i>	Lamiaceae	Sabja	Herb	6
34	<i>Mangifera indica</i>	Anacardiaceae	Mango	Tree	20
35	<i>Azadirachta indica</i>	Meliaceae	Neem	Tree	15
36	<i>Rosa alba</i>	Rosaceae	Rose	Shrub	100
37	<i>Musa paradisiaca</i>	Musaceae	Banana	Shrub	100
38	<i>Canna indica</i>	Cannaceae	Matta tamara	Shrub	10
39	<i>Annona squamosa</i>	Annonaceae	Seethaphalam	Tree	2
40	<i>Polyalthia longifolia</i>	Annonaceae	Ashoka	Tree	200
41	<i>Brassica nigra</i>	Brassicaceae	Avalu	Herb	24
42	<i>Murraya paniculata</i>	Rutaceae	China box	Shrub	16
43	<i>Coccinia indica</i>	Cucurbitaceae	Donda	Climber	6
44	<i>Coriandrum sativum</i>	Apiaceae	Kothimeera	Herb	20
45	<i>Helianthus annuus</i>	Asteraceae	Sun flower	Shrub	15
46	<i>Calotropis gigantia</i>	Asclepiadiaceae	Jilledu	Shrub	18
47	<i>Mentha avensis</i>	Lamiaceae	Mint	Shrub	25
48	<i>Euphorbia hirta</i>	Euphorbiaceae	Raddi vari nanubalu	Herb	100
49	<i>Phyllanthus niruri</i>	Euphorbiaceae	Nela usiri	Herb	110
50	<i>Cicca acida</i>	Euphorbiaceae	Usiri	Tree	6
51	<i>Oryza sativa</i>	Poaceae	Paddy	Herb	150
52	<i>Areva lanata</i>	Amaranthaceae	Kondapindi aaku	Herb	170
53	<i>Annona muricata</i>	Annonaceae	Lakshmanaph alam	Tree	3
54	<i>Cleome viscosa</i>	Capparadiaceae	Vampali	Herb	40
55	<i>Gynandropsis pentaphylla</i>	Capparadiaceae	Kukka vaminta	Herb	35
56	<i>Abitulon indicum</i>	Malvaceae	Duvvana kaya	Shrub	10
57	<i>Abelmoschus esculentus</i>	Malvaceae	Banda	Herb	150
58	<i>Hibiscus micranthus</i>	Malvaceae	Nityamalli	Shrub	4
59	<i>Hibiscus cannabinus</i>	Malvaceae	Gongura	Herb	200
60	<i>Sida cordifolia</i>	Malvaceae	Sida	Herb	20
61	<i>Abrus precatorius</i>	Fabaceae	Guruvinda	Climber	2
62	<i>Clitoria ternata</i>	Fabaceae	Sanku	Climber	5
63	<i>Dolichos lab lab</i>	Fabaceae	Chikkudu	Herb	100
64	<i>Tephrosia purpurea</i>	Fabaceae	Vempali	Herb	50
65	<i>Trigonella foenumjraecum</i>	Fabaceae	Menthi	Herb	150
66	<i>Bauhinia purpurea</i>	Caesalpinaceae	Addaku	Tree	20

67	<i>Bauhinia Vahlia</i>	Caesalpinaceae	Addaku	Tree	20
68	<i>Cassia occidentalis</i>	Caesalpinaceae	Kasinda	Herb	10
69	<i>Tamarindus indica</i>	Caesalpinaceae	Chinta	Tree	2
70	<i>Mimosa pudica</i>	Mimosaceae	Attipatti	Herb	15
71	<i>Benincasa hispida</i>	Cucurbitaceae	Budida gummadi	Climber	2
72	<i>Cucurbita maxima</i>	Cucurbitaceae	Gummadi	Climber	2
73	<i>Cucumis sativus</i>	Cucurbitaceae	Cucumber	Climber	30
74	<i>Luffa acutangula</i>	Cucurbitaceae	Angular gour	Climber	30
75	<i>Momordica charantia</i>	Cucurbitaceae	Bitter gourd	Climber	30
76	<i>Daucus carota</i>	Apiaceae	Carrot	Herb	20
77	<i>Carum copticum</i>	Apiaceae	Vamu	Herb	2
78	<i>Piper Betel</i>	Piperaceae	Tamalapaku	Climber	5
79	<i>Centella asiatica</i>	Apiaceae	Saraswathi aaku	Herb	100
80	<i>Ixora coccinia</i>	Rubiaceae	Nuruvarahalu	Shrub	50
81	<i>Anthocephalus cadamba</i>	Rubiaceae	Kadambam	Tree	5
82	<i>Oldenlandia umbellata</i>	Rubiaceae	Oldenlandia	Herb	200
83	<i>Eclipta alba</i>	Asteraceae	Guntagalagar	Herb	100
84	<i>Parthinium hysterophorus</i>	Asteraceae	Pichhi masupatri	Herb	150
85	<i>Solidago canadensis</i>	Asteraceae	Golden rods	Herb	100
86	<i>Tridax Procumbens</i>	Asteraceae	Gaddi chamanthi	Herb	200
87	<i>Ageratum conyzoides</i>	Asteraceae	Ageratum	Herb	50
88	<i>Achras sapota</i>	Sapotaceae	Sapota	Tree	4
89	<i>Gymnema sylvestris</i>	Asclepiadiaceae	Podapathri	Climber	1
90	<i>Ipomea aquatica</i>	Convolvulaceae	Tutukada	Climber	2
91	<i>Adathoda vasica</i>	Acanthaceae	Addasara	Shrub	2
92	<i>Andrographis echioides</i>	Acanthaceae	Nalavemu	Herb	30
93	<i>Barleria cristata</i>	Acanthaceae	December flowers	Herb	4
94	<i>Barleria strigosa</i>	Acanthaceae	Nelabaram	Herb	10
95	<i>Coleus amboinicus</i>	Lamiaceae	Vamuaku	Herb	10
96	<i>Coleus blumei</i>	Lamiaceae	Namilipinche m	Herb	350
97	<i>Achyranthus aspera</i>	Amaranthaceae	Uttareni	Herb	40
98	<i>Acalypha indica</i>	Euphorbiaceae	Muripinda	Herb	50
99	<i>Pongamia pinnta</i>	Fabaceae	Ganuga	Tree	20
100	<i>Ricinus Communis</i>	Euphorbiaceae	Amudham	Shrub	15
101	<i>Spathoglottis plicata</i>	Orchidaceae	orchid	Herb	20
102	<i>Dracaena angustifolia</i>	Liliaceae	Dracaena	Herb	100
103	<i>Borassus flabellifer</i>	Palmaceae	Tadi	Tree	35

Plants in the College Campus

S.No	Habit	No.of Varieties	No.of Plants
1.	Herbs	44	3,794
2.	Shrubs	19	491
3.	Climbers	14	144
4.	Trees	26	866
Grand Total		103	5295

B) Medicinal Plants List

S.No	Common Name	Botanical Name	Habit	Part Used	Medicinal Uses	No.
1	Rathi Usiri	Emblica officinalis Fam – Euphorbiaceae	Tree	Fruit	Vitamin - C, Cough , Diabetes, cold, Laxative, hyper acidity	1
2	Aswagandha	Withania somnifera Fam: Solanaceae	Herb	Root, Leaves	Restorative Tonic, stress, nerves disorder,	2
3	Podapatri	Gymnema sylvestris Fam: Asclepiadaceae	Climber	Leaves	Diabetes, hydrocele, Asthma.	2
4	Nelavemu	Andrographis paniculata Fam :Acanthaceae	Herb	Whole Plant	Diabetes, Fever, weakness, release of gas.	10
5	Pepper	Piper longum Fam : Piperaceae	Climber	Fruit, Root	Appetizer, enlarged spleen Bronchitis, Cold, antidote	1
6	Pippermint	Mentha piperata Fam:Lamiaceae	Herb	leaves, Flower, Oil	Digestive, Pain killer.	4
7	Sarpagandha	Rauwolfia serpentina Fam: Apocynaceae	Herb	Root	Hyper tension.	2
8	Pilli teegalu	Asparagus racemosus Family: Liliaceae	Climber	Tuber, root	Enhance lactation, general weakness, cough	2
9	Tulasi	Ocimum sanctum Fam: Lamiaceae	Herb	Leaves/Seed	Cough, Cold, bronchitis, expectorant	10
10	Billa Ganneru	Vinca rosea Fam :Apocyanaceae	Herb	Whole Plant	Leukemia, Hypertensive, Antispasmodic , Antidote	10
11	Guntagalagara	Eclipta alba Fam: Compositae	Herb	Seed/whole	Anti-inflammatory, Digestive, hair tonic	10
12	Neem	Azadirachta indica Fam : Meliaceae	Tree	whole	Sedative, analgesic, epilepsy, hypertensive.	10

13	Vasa	Acorus calamus Fam :Acoraceae	Herb	Rhizome	Clarity of speech, Sedative, analgesic, epilepsy, hypertensive	20
14	Addasaram	Adhatoda vasica Fam :Acanthaceae	Shrub	Whole Plant	Antispasmodic, respiratory, Stimulant	2
15	Vattivellu	Vetiveria zizinoidea Fam :Poaceae	Herb	Root	Burning, ulcer, Skin, Vomiting. water purifier	10
16	Saraswathi aaku	Centella asiatica Fam : Umbelliferae	Herb	Whole plant	Jaundice, Diuretic, Diarrhoea. Improves memory power	40
17	Dalchinachekka	Cinnamomum zeylanicum Fam : Lauraceae	Tree	Bark, Oil	Stimulant Bronchitis, Asthma, Fever.	111
18	Nela Usiri	Phyllanthus amarus Fam :Euphorbiaceae	Herb	Whole Plant	Anemic, jaundice, Dropsy	20
19	Kalabanda	Aloe vera Fam: Liliaceae	Herb	Leaves	Laxative, Wound healing, Skin burns, moisturizer, Ulcer	10
20	Ataka mamidi	Boerhavia diffusa Fam:Nyctaginaceae	Herb	Root	tonic to liver problem, jaundice, asthma	10
21	Jilledu	Calotropis gigantea Fam: Apocynaceae	Shrub	Leaf	toothache, earache, epilepsy, diarrhea and mental disorder	2
22	Ummethha	Datura metel Fam: Solanaceae	Shrub	Leaf	antibacterial, antimicrobial activity	2
23	Amudham	Ricinus communis Fam: Euphorbiaceae	Shrub	Leaf	Purgative, antimicrobial and anti- inflammatory activity	2
24	Athhipathhi	Mimosa pudica Mimosaceae	Herb	Whole plant	Bronchitis	4
25	Buddabudasa	Passiflora foetida Passifloraceae	Climber	Leaf	Skin diseases	1
26	Gurivindha	Abrus precatorius Fabaceae	Climber	seeds	Toxic to neuromuscular system	2
27	Vavili aaku	Vitex negundo Fam: Lamiaceae	Tree	Leaf	Joint pain, anti-inflammatory, bronchial relaxant.	1
28	Lemon grass	Cymbopogon citratu Fam: Poaceae	Herb	Whole plant	insect bites	10
29	Zinger	Zingiber officinale Fam: Zingiberaceae	Herb	rhizome	promotes digestion	1
30	Muripinda	Acalypha indica Fam: Euphorbiaceae	Herb	leaves	cold and cough	10
31	Termeric	Curcuma longa Fam: Zingiberaceae	Herb	rhizome	cold and cough, kills intestinal worms	4
32	Reddivaarinaan ubaalu	Euphorbia hirta Fam: Euphorbiaceae	Herb	Stem, leaves	decreases body temperature	10

33	Nimma	Citrus limon Fam: Rutaceae	Tree	Whole plant	aids digestion, for constipation, cough, laxative, antiseptic, bronchitis	1
34	Sadapaaku	Ruta graveolens Fam: Rutaceae	Herb	Whole plant	Epilepsy, Hysteria	1
35	Krishna thulasi	Ocimum americanum Fam: Lamiaceae	Herb	Whole plant	Bronchitis	10
36	Lavangam	Eugenia caryophyllata Fam: Myrtaceae	Shrub	cloves	aphrodisiac, expectorant, toothache	1
37	Duvvena kaya	Abutilon indicum Fam: Malvaceae	Shrub	Whole plant	Piles, Diarrhea	1
38	Kondapindi aaku	Aerva lanata Fam: Amaranthaceae	Herb	Stem, leaves	Remove kidney stones	2
39	Nalleeswari	Aristolochia indica Fam: Aristolochiaceae	Herb	Roots, leaves	Itching, Snake bite, indigestion	1
40	Kottimeera	Coriandrum sativum Fam: Apiaceae	Herb	Whole plant	Diarrhea, digestion, gastric problems	10
41	Nalleru	Cissus quadrangularis Fam: Vitaceae	Climber	Stem, leaves	Fractures, Joint pains, obesity, diabetes	1
42	Thamalapaaku	Piper betle Fam: Piperaceae	Climber	Leaves	Stomachic, carminative, ulcers	2
43	Miryalu	Piper nigrum Fam: Piperaceae	Climber	fruits	Diabetes, dental, Digestive, Cough, cold	1
44	Ponnagantiaku	Alternanthera sessilis Fam: Amaranthaceae	Herb	Leaves	Tender twigs used as a curry for eye diseases	10
45	Sithapalam	Annona squamosa Fam: Annonaceae	Tree	Shrub	liceidal, insecticide	1
46	kachorum	Kaempfer galanga, Zingiberaceae	Herb	Rhizome, leaves	Cough, headache, cold	2
47	vamaku	Coleus aromaticum Fam: Lamiaceae	Herb	leaves	Malarial fever, cough, bronchitis	4
48	Pulla jemudu	Euphorbia tirucalli Fam: Euphorbiaceae	Shrub	Whole plant	Bronchitis, asthma, tumors	1
49	Allspice plant	Pimenta dioica Fam: Myrtaceae	Tree	Leaves, seed	Cold, cough, digestion	1
50	Multi vitamin plant	Sauropus androgynus Fam: Euphorbiaceae	Shrub	Tender shoot leaves	Leafy vegetable, multi vitamin sources	1

51	Brahma Tulasi	Ocimum species Fam: Lamiaceae	Shrub	Leaves/Seed	Cough, Cold, bronchitis, expectorant	2
52	Sabja	Ocimum basilicum Fam: Lamiaceae	Shrub	Leaves/Seed	Gives cooling effect, piles, skin diseases	2
53	Rama Tulasi	Ocimum sanctum Fam: Lamiaceae	Herb	Leaves/Seed	Cough, Cold, bronchitis, expectorant	4
54	Line thotakura	Alternanthera dentata Fam: Amaranthaceae	Herb	Leaves, stem	Kidney stones, stomach pain	10
55	Naramaamidi	Polyalthia longifolia Fam: Annonaceae	Tree	Leaves, bark	Uterus disorders, intestinal worm	10
56	Candy leaf (Stevia)	Stevia rebaudiana Fam: Asteraceae	Herb	Leaves	Sweet in taste, diabetes	1
57	oxygen plant (Saganaara)	Dracaena trifasciata Fam: Aspagaraus	Herb	Whole plant	Air purifier, decreasing stress	10
58	Yelakulu	Elettaria cardamomum Fam: Zingiberaceae	Shrub	Seed pods, Seeds	Digestion, anti-inflammatory, toothaches,	1
59	Chengalva Kostu	Costus speciosus Fam: Zingiberaceae	Herb	rhizome	Ear pain, headache, piles	10

Plants in Herbal garden

S.No	Habit	No.of Varieties	No.of Plants
5.	Herbs	32	272
6.	Shrubs	11	17
7.	Climbers	8	12
8.	Trees	8	26
Grand Total		59	327

1.4 WATER AND WASTE WATER MANAGEMENT

1. List the uses of water in your institute?

Basic use of water in campus:

Drinking – 178.67 KL/month

Gardening – 372.47 KL/month

Kitchen and Toilets – 1176.81 KL/month

Others – 228.49 KL/month

Hostel – 855.90 KL/Month

Total = 2812.34 KL/Month

2. How does your institute store water? Are there any water saving techniques followed in your institute?

There are total liters water storage of water and boosting within the College campus

Saving Techniques

-Avoid overflow of water controlled valves are provided in water supply system.

-Close supervision for water supply system.

-Water Conservation awareness for new students

-Sprinklers usage for gardening and grass cover, drip irrigation to plants and agricultural fields

	Storage Type	Capacity Litre	Quantity	Total in Litres
1	Over Head tank	3,000	9	27,000
2	Underground	3,000	2	6,000
				33,000

3. Locate the point of entry of water and point of exit of waste water in your institute.

Entry – Ground water and RWS Sanivarapupet Public water supply

Exit- From Canteen, Toilets, bathrooms, Hostels and Labs through covered drainage which is connected to sewage and also to some plant cover.

4. Write down ways that could reduce the amount of water used in your institute?

Basic use of water in campus:

Basic ways:

-Close the taps after usage

- Water Conservation awareness for new students

-Maintenance and monitoring of valves in supply system to avoid overflow, leakage and spillage

-In new block, push tap are installed to save water

Water and Waste water management:

The efforts of the institution in water usage and management is satisfactory and no unnecessary water wastage is noticed in the campus. Keeping in mind that the city is facing water crisis, College has dug a bore well and is self-reliant in its water requirement. To avoid power consumption, GSC has built 9 roof top storage tanks for 27,000 Litre capacity. The daily water usage is 20000-28000 Litres depending on the nature of academic activity. To prevent wastage, push button taps are installed in most of the places of common usage. The campus has good drainage and sewage connection. The sewage connection was properly rebuilt outside the campus. Efforts of the institution to harvest and recharge its ground water table is commendable. It is significant that the College has constructed 10 Rainwater harvesting sunken pits in the college Campus. The students and staff have taken up Jalashakthi programme to motivate the student and community on the importance of water harvesting and its methods in the year 2019.

The per capita water usage is 17 Lt which is much lesser than the National average water usage in educational institutions which is pegged at 45 Litres. Therefore, it is evident that the College has adopted adequate water usage.

1.5 ANIMAL WELFARE

1. List the animals (wild and domestic) found on the campus (dogs, cats, squirrels, birds, insects, etc.)

20 Buffallos, 20 Rabbits, 5 Dogs, around 50 squirrels under mammals, 15 species of birds, 100 garden lizards, 100 wall lizards, 40 snakes under Reptiles, 20+ butterfly species, 30 species of insects, and 10+earth worm species were also recorded. The An Aquarium in Zoology lab and two Aquarium fish ponds in the college campus add beauty of life. This indicated excellent composition of Flora and Fauna quite unique considering that the campus is situated nearer to Kolleru lake, many birds are reported to breed in the campus seasonally.

2. Does your institute have a Biodiversity Program or a KARUNA CLUB?

Yes, The Zoology Department in association with the District Nature and Animal Conservation Society actively organizes awareness through various campaigns and activities including seminars, poster competition, etc.

1.6 CARBON FOOTPRINT - EMISSION & ABSORPTION

1. Electricity used per year- CO₂

emission from Electricity (*electricity used per year in kWh/1000*) x 0.84

$$581988.kWh/1000 \times 0.84$$

$$= 581988.00 /1000 \times 0.84$$

$$= 488.87 \text{ ton}$$

2. LPG/PNG used per year - CO₂ emission from LPG/PNG

Basic use of water in campus:

(LPG/PNG used per year in KG) x 2.99

$$542.31 \times 2.99$$

$$= 542.31 \times 2.99$$

$$= 1.62 \text{ ton}$$

3. Diesel used per year CO₂ emission from HDS (Diesel)

Basic use of Diesel in campus:

(Diesel used per year in litres) x 2.68

$$212.14 \times 2.68$$

$$= 212.14 \times 2.68$$

$$= 0.57 \text{ ton}$$

4. Transportation per year (car) CO₂ emission from transportation (Bus and Car)

Basic use of water in campus:

College have 2 owned vehicles and 2 buses, but they are always under servicing to reduce excess emission.

CO₂ emission per year cumulative by electricity usage + bus and car transportation (488.87 + 1.62 + 0.57 = 491.06 ton)

CARBON ABSORPTION BY FLORA IN THE INSTITUTION

There are 866 full grown trees and 4429 semi grown shrubs, climbers and herbs of different species, on the campus spread over 4 acres.

Carbon absorption capacity of one full grown tree 22 kg CO₂ Therefore Carbon absorption capacity of 866 full-grown trees $866 \times 22 \text{ kg CO}_2 = 19.052 \text{ tons of CO}_2$.

The carbon absorption capacity of 635 semi-grown trees is 50% of that of full-grown trees. Hence the carbon absorption $4429 \times 6.8 \text{ kg of CO}_2 = 30.11 \text{ tons of CO}_2$

There are approximately Hedge Plants 11250 of various species being raised in the gardens and grown in the areas where no buildings are built Carbon absorption of bush plants varies widely with their species. Certain bushes absorb very high level of CO₂ where as some others absorb very low level of CO₂. In the absence of a detailed scientific study, 200g of CO₂, absorption is taken per bush (in consultation with Environmental Science specialists). Based on this, total carbon absorption of bushes is $11250 \times 200 \text{ g} = 2.25 \text{ tons of CO}_2$

The lawns on the campus have buffalo grass and indigenous grass species and cover a total area of 26000 sq. ft. Carbon absorption capacity of a 10 sq. ft. area of lawn is 1 g per day Therefore, carbon absorption by lawn area $26000.0 \times 365 \times 0.1 \text{ g CO}_2 = 9.49 \text{ tons CO}_2 \text{ per year}$.

Grand total of carbon absorption capacity of the campus is 60.9 tons.

GREEN INITIATIVES BY THE CAMPUS

- **Solid Waste Management**

- Waste management is done by composting
- Recycling of used paper is carried out in paper recycling plant.
- There is ban on single use plastic and plastic crockery in the campus.

The waste management is in order with the installation of dust bins. Daily cleaning is carried out and most of the non-biodegradable waste is lifted, and the College has adopted an environmentally sound practice of converting biodegradable waste into vermicompost a useful resource. The whole paper waste is converted into recycling material of different types in Recycling Unit established in the year 2015. The whole produce of vermicompost, recycling paper crafts are available in the startup units of the College. The importance of handling and disposal of hazardous waste is recognized and though the amount of waste is very minimal. The pathogenic waste from Microbiology lab is disposed safely using standard methods and lab attendants are well trained in this. Various types of chemical waste are collected and disposed by the Department of Chemistry. Eco Club and NSS also involved in conducting awareness activities, campus cleaning and also in the College surroundings.

- **Paper recycling unit:**

Paper Recycling unit has been installed in the campus to reuse all the waste paper from various department and to recycle waste office stationery. The waste has been used to prepare office files, folders and personalized stationery.

The main purpose of installing the recycling unit is to create efficient, economical environment and to reduce the energy consumption by recycling.

- **Renewable Energy**

- Solar power plant of capacity 100 KW is installed on building roof.
- The college is using solar lights for street lights.

Energy audit:

Energy audit is carried out by Physics and Electronics Department and the annual mean electricity consumption is around 7000 kW which is purchased power drawn from the State grid. The college is in the LT2A tariff category of BESCOM with a sanctioned load of 0.5 hp + 3 kW.

To ensure uninterrupted power the college has 35-KVA DG set and 20-KVA UPS are used for power backup. A medium solar power tapping is done and suggestions are given to reduce electricity consumption by replacing tubes and adopting solar power and replacing 40W FTLs with 28 FTLs.

As a follow up, GSC has installed 300 KW solar power from HAL through their Corporate Social Responsibility scheme coordinated by TERI, Bangalore. As a result, there is 35-40% reduction in monthly electricity bill.

- **Tree Plantation Drives**

- ten plantation drives were carried out in the current year in the Campus.

- Plants survival rate is around 85%

- **Air Pollution Reduction**

- Personal Vehicles (Students) are not allowed in the campus

- College is in process to pursue air quality monitoring by NABL approved lab.

- **STC ECO CLUB Initiatives** – environment committee,

- Below are the highlights of their work on environment consciousness

- STC Eco Club, Botany and Agriculture Departments, NSS, NCC conducting a number of activities every year.

2018-2019

- July 10th- Tree plantation was done by the members of Eco club. The Eco club students planted 50 saplings taken from the Forest Department.
- July 4th and 6th- Mega health camp was organized in association with ASRAM Medical college. 10 Doctors and 10 technicians have conducted the camp.

2019-2020

- **8-9-2019, Jalashakthi programe:** Department members participated in (water harvesting)Jalashakthi programe in the college campus.
- **10-7-2019, Health checkup: July 10th and 11th**- Mega health camp was organized in association with ASRAM Medical college. 10 Doctors and 10 technicians have conducted the camp.
- **26.11.2016, Health checkup:** 26-11-2019- Health camp was organized in association with MEDALL -SASH Health screening. 3 technicians have conducted the camp.
- **9-7-2019,VanamManamprogramme:** Eco club staff members and student members participated and organized vanammanam by plantation of 50 saplings in the campus.
- **19-8-2019, Deworming Day:** The National Deworming Day was observed on 19th August,2019 by the students and faculty of Department of Zoology,headed by Dr.R.Indira

2020-2021:

- **Eco-Club – Indoor plants Exhibition:** The Botany Department organized Indoor plant Exhibition cum sale for all staff and students to motivate them to improve oxygen levels by growing indoor plants during the corona situation.

2021-2022;

- **15.12.2021Workshop on Vermiculture&Vermicomposting-From Garbage to Garden.** On 15thDecember 2021, the BZC and ZNC,B.Voc-CALT students

of CH.S.D.St.Theresa's College for Women(A),Eluru have organized the workshop under the guidance of the Department of Zoology.

- **Webinar:13-5-2021:** The Department of Zoology organized Awareness on COVID 19 On 13 May,2021. And the awareness was on Live YouTube streaming. As the corona virus disease continues to evolve, our college has taken up a proactive approach to give awareness on COVID 19 and to ensure the safety of our students, employees, educators and community through this online Webinar.
- **5-6-2021: STC ECO CLUB ACTIVITY:** On the eve of Environment Day on June 5th 2021 our department members plant saplings in small pots at their homes. Dr.R.Indira and Dr.K.SV.K.S.Madhavi Rani gave motivational and awareness talk on World Environment day to the students through ZOOM. And also prepared a youtube video on the Event.
- **Sanitation Programme: On 8-10-2021:** In the whole college campus & Labs were sanitized and also given fogging under mosquito treatment with the help of Sanivarapupet panchayath staff.
- **18-7-2021, Award for Health and Good Hygiene Practices:** On July 18th 2021, Our College received prestigious award on Health and good Hygiene practices from Hym International Certification Pvt. Limited. The certificate was handed over by Honourable Deputy CM, Sri Alla Kali Krishna Srinivas garu
- **24-7-2021, Plantation Drive:** Department Botany and Eco club inaugurated Plantation Drive. Sister Principal Dr. Sr. Marietta D'Mello and retired staff members along with Eco club members planted saplings in the campus.
- **9-9-2021, Patri Distribution:**All department members participated in Eco friendly activity for Vinayaka Chaturdasi
- **St.Theresa's COVID 19 Counselling & Wellbeing Hub:June 8th 2021:** On 8th June 2021, St.Theresa's COVID 19 Counselling & Wellbeing Hub was established and inaugurated to extend an emotional support or any possible services to our colleagues, friends and relatives who are struggling for their survival through our faculty and students.

- **June 10th 2021: STCCWH:** On 10th June 2021, St. Theresa's COVID 19 Counselling & Wellbeing Hub in association with Mahatma Gandhi National Council of Rural Education, Department of Higher Education, Government of India organized an Online Workshop on Guidance on Psycho-Social and Counselling Skills to extend an emotional support or any possible services to our colleagues.
- **17-9-2021, Vaccination Drive:** Vaccination programme conducted in the campus for students, staff and public
- **21-10-2021, Vaccination Drive:** Vaccination programme conducted in the campus for students, staff and also public in association with Medical Healthcare of Katta Subbarao Thota Sachivalayam staff. 45 doses of Vaccine were taken by the participants.
- **30.12.2021& 31-12-2021: Vaccination Drive:** COVID Counselling and Wellbeing Hub conducted Covid Vaccination Drive for the students and staff of Ch.S.D.St. Theresa's College for Women (A), ELURU in association with DM&HO, Eluru, West Godavari District on 30.12.2021& 31-12-2021. 170 students have successfully completed their second dose of vaccination.
- **8-2-2022, Vaccination Drive: COVID Counselling and Wellbeing Hub conducted Covid Vaccination Drive for the students and staff of Ch.S.D.St. Theresa's College for Women (A), ELURU in association with DM&HO, Eluru, West Godavari District.**
- **10.2.2022, National Seminar:** On 10.2.2022, The Department of Zoology, Ch.S.D. St. Theresa's College for Women (A), Eluru organized a National Seminar on "Research Developments for Sustainable Ecosystems-Coral Reefs, the Paradise under Water" through online modes, google meet and Youtube links. Dr.Ch. Satyanarayana, Scientist D, Coral Taxonomist, Zoological Survey of India, Marine Biology Regional Center, Chennai was the Resource person.
- **23-1-2022, National Tourism Competitions:** Department of Zoology conducted An Essay writing, elocution and Painting competitions on the eve of National Tourism Day on the topic of "Tourism role in countries development" organized by SETWEL Tourism, West Godavari district, A.P
- **Community Development Programme:** III BSc. students completed their Community Development Programme and created awareness in the villages koppakagudem, Vangayagudem, Dwaraka Tirumala, Thangellamudi, vanguru etc.

2022-2023:

- **29-10-2022, Workshop on Plastic Ban:** On 29th October, 2022, a workshop on “**Harmful effects of Plastic, Governments Ban and our responsibility**” was organised by the STC ECO Club. Municipal Commissioner Sri Shahid Shaik was the Chief guest. Manohari Velamati Founder and Managing trustee, Gramdeep and Md. Sirajuddeen, Revenue officer created awareness.
- **15-11-2022: Exhibition on Plastic Ban:** STC Eco club organized an exhibition on the eve of Province Eco celebrations under Municipal Corporation Plastic Ban Programme of Swachh Eluru
- **12-8-2022-Ajadi ka Amruth Mahotsav:** On 12th August taken up pinning the flag and receive a certificate on Tiranga google link by all the staff and students. And also arrange 3 selfie points to take selfie with National flag. All the faculty and students too selfie and sent their selfies to the department members. Aug. 15th The Department of Zoology is the incharge of all activities on the eve of Ajadi Ka Amrit Mahatsav Celebrations in the Campus. Various activities organized and sent to the Government on every day in association with Department of Computer Science.
- **Health camp-6-9-2022 & 7-9-2022:** Mega health camp was organized in association with ASRAM Medical college. 10 Doctors and 10 technicians have conducted the camp.
- **Anaemia Eradication Programme: 12-10-2022:** Department of Zoology organized an awareness programme on Anaemia Eradication in collaboration with District Government Hospital.
- **PROVINCE LEVEL COMPETITIONS- PROVINCE OF THE IMMACULATE CONCEPTION, EAST INDIA:** Theme: Caring for our Common Home – The Earth which is in crises. All the Competitions were conducted through Google Meet. Sr. Rajitha, Vice Principal of Ch.S.D.St.Theresa’s College for Women, Eluru coordinated all the 6 competitions. Dr.R.Indira arranged the google meets for various competitions on Fancy dress, painting, poster presentation, Elocution for School Children, Short film for Degree students. All the students were actively participated. All the members acted as Jury members.

- **5-11-2022-Mrs. N.lakshmi Prasanna** along with I BVoc.CALT students, released *Gambusia* fish in to the campus Aquarium pond.
- **10-2-2023-Field Trip:** Dr.R.Indira taken the Internship students, Ag BSc students were taken to oil farm research center, ICAR, pedavegi, The students visited Entamology lab, Pathology lab and also trained by Dr.Prasad garu, Scientist C
- **28-11-2023-** Field visits to Environmentally friendly measures like-Terrace Garden, Sunken pits and water harvest sprinklers etc.
- **WORLD ENVIRONMENT DAY-JUNE 5th 2022-** World Environment Day is annually celebrated on June 5th. On the Eve of World Environment Day, the Department pf Botany and STC Eco club organized Plantation Programme on June 4th 2022, at 10.30 Am in the College premises.
- **25-7-2022** -Plantation activity was under taken by Eco club in the college campus.
- **14-8-2022-** STC Eco club also taken up plantation programme in commemorative of 75Th Independenceday celebrations. Dr.Sr.Mercy, Principal, Sr.Rajitha, Vice Principal, Dr. R.Indira, coordinator and others planted 30 plants.
- **Cancer Awareness Ralley- 4-2-2023** -All the department members along with 70 students of STC Eco club participated in Cancer Awareness Walkathon organized by Good Samaritan cancer and multispeciality hospital, Vangayagudem, Eluru.
- **Pollution Control Day: 2-12--2022:** As a part of Eco club activities,the departmental members and students went on a rally to a slum area near Yetigattu. A community activity on Plastic ban was organized. Students explained that plastic ban is the need of the hour. Cloth bags and Chrysanthemum saplings were distributed to the residents of that area.
- **2-1-2023, Plantation Drive:**Eco club volunteers conducted ornamental plantation in front of the administrative block

2023-2024

- **WORLD ENVIRONMENT DAY-JUNE 5th 2023:**On the Eve of World Environment Day, the Department of Botany and STC Eco club organized Plantation Programme on June 5th 2023, at 10.30 Am in the College premises.

- **30.8.2023: World Whale Day:** On the eve of World Whale Shark Day, Ms. Krupa Deepika, III BZC explained the biology and importance of Whale shark and their conservation to all the student fraternity during assembly hour.
- **28-7-2023-Nature Conservation Day:** Under the eco club activity on the eve of nature conservation day all the eco club members create an awareness to students on the importance of nature and its conservation.
- **11-8-2023-Plantation:** Under Eco club plantation programme, Dr.Sr.Mercy, Sri.Lunanai, member of Lions Club, all HOD of various departments, Eco club members and students planted different fruit plants at STC Eco club garden. Maintenance can be taken by Eco club students. Volunteers also distributed fruit plants to support staff and students.
- **12-8-2023-Distribution of Plants:** Under Eco Club Dr. R.Indira, H,O.D department of Zoology, distributed various fruit plants to students.
- **1-9-2023- STC Eco club Plantation:** Under Eco club plantation programme, Eco club members and students planted different plants at STC Eco club garden. Maintenance can be taken by Eco club students.
- **21-9-2023: Plantation :** In association with NDBI bank Kalpatharu NGO organization 100 saplings are planted in the Eco Garden along with agriculture and Botany departments.
- **5-10-2023: Clean and green – Eco Club:** Under STC Eco club, students maintain clean and green in the Campus
- **23-2-2024-Vermi composting training:** As a part of skill development course- vermicompost production. Students of second year agriculture were taken to vermicompost unit for their practical work. Students gained so much knowledge related to vermicompost preparation
- **21-3-2024- Eco Agri Tech** was arranged and inaugurated by .K.Damayanthi,IAS, Our Proud Alumna.

Research

Considering the fact that the institution is predominantly an undergraduate college, there is significant environmental research both by faculty and students. The environmental awareness initiatives are substantial. The faculty and students were all have taken up a Mega project on Solid waste Management in Eluru Municipal Corporation under Swachh Bharat and submitted the report to Municipal commissioner. The College initiated TSBA-Theresian Swachh Bharat Abhiyan, under this, Katta subba rao thota area was adopted and taken up many activities like solid waste mangement, Tree plantation programme, Tammeleru restoration activities and so on. Students were also involved in Swachh Survekshan-2017. The faculty of Zoology department completed their major project on restoration of Kolleru Lake. The adoption of Tammileru and its restoration and Bio-monitoring research focusing on urban pollution and its recommendations to prevent water pollution from the residents. The Deaprtment of Zoology also taken up Jalashakthi programme in the year 2020, under this the students from BZC and ZNC conducted project work on Water Harvest methods followed in selected villages of West Godavari District to motivate the public towards need for water conservation methods.

These are just a few of the many examples of Ch.S.D.St.Thertesa's Autonomous College for Women, Eluru going green and becoming a model institution in being a "Carbon Surplus Campus".

RECOMMENDATIONS

- College should go for water balancing / audit for monitoring the use and wastage of water.
- Water Meter should be installed at every building of institute for monitoring of water consumption per capita
- Flow rate of taps should be checked, it should not be more than 2.5 litres/minute.
- Establish an E-waste collection centre in campus.
- Green building guidelines for future expansion projects of the campus

CONCLUSION

This audit involves considerable team discussions and meetings with key staff members on a variety of environmental-related topics. The STC eco club of College promotes conservation of resources.

Overall 75% of College campus is for landscaping and 60% is green cover. The College makes a significant effort to act in an environmentally responsible manner and takes into account the environmental effects of the majority of its activities. The recommendations in this report suggests some more ways in which the College can work to improve its practices and develop into a more sustainable institution. Additionally, we strongly advise installing water meters at each building/block, expansion of no. of sunken pits and water balancing report.

REFERENCES

- The Environment [Protection] Act – 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- The Petroleum Act: 1934 – The Petroleum Rules: 2002
- The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle Rules:1989 (Amended in 2005)
- Energy Conservation Act 2010.
- The Water [Prevention & Control Of Pollution] Act – 1974 (Amended 1988) & the Water (Prevention & Control of Pollution) Rules – 1975
- The Air [Prevention & Control Of Pollution] Act – 1981 (Amended 1987) The Air (Prevention & Control of Pollution) Rules – 1982
- The Gas Cylinders Rules – 2016 (Replaces the Gas Cylinder Rules – 1981
- E-waste management rules 2016
- Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
- The Hazardous Waste (Management and Handling and Trans-boundary Movement) Rules, 2008 (Amended 2016)
- The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
- The Batteries (Management and Handling) rules, 2001 (Amended 2010)

ANNEXURE – PHOTOGRAPHS OF ENVIRONMENT CONSOUSNESS

• PLATATION DRIVES



Distribution of Samplings



Cleaning the Yard



Naming the Trees



Naming the Trees



Plantation



Vanammanam programme



World Environment day



World Environment day



World Environment day



World Environment day



MLA presenting Good Hygiene Practices Certificate



సెయింట్ థెరిస్సా డిగ్రీ కళాశాలకు ప్రత్యేక గుర్తింపు

ఏలూరు రూరల్, జూలై 18: ఏలూరు సెయింట్ థెరిస్సా డిగ్రీ మహిళా కళాశాల హైమ్ ఇంటి రోషన్ లో సర్టిఫికేషన్ ప్రైవేటు లిమిటెడ్ ద్వారా గుడ్ హైజిన్ ప్రాక్టీసెస్ సర్టిఫికేషను పొందడం పట్ల కళాశాల యాజమాన్యాన్ని అధ్యాపక బృందాన్ని ఉప ముఖ్యమంత్రి ఆళ్ల నాని అభినందించారు. సర్టిఫికేషను నాని చేరుల మీదుగా యాజమాన్యానికి అం దజేశారు.



News Coverage



Jalashakthi Programme



Jalashakthi Programme



Plantation Drive



Plantation Drive



Campus Cleaning



Exhibition cum sale of Indoor plants



World Environment Day



Nature Conservation Day



Plantation by the Principal



Plantation by the Vice Principal



Plantation Week



Plantation Week

Awareness Programmes



Awareness Programme on Mother Earth



Eco Friendly Projects



Workshop on Animal Conservation and Rescue



Seminar on Women Health



Distribution of Herbal twigs on the eve of Vinayaka Chaturdthi



Awareness on Health and Hygiene

Solid Waste Management- Vermicompost Unit



Vermicompost Unit



Vermicompost Preparation



Fertilizing the plants with vermicompost



Fertilizing the plants with vermicompost



Vermicompost training to Engineering students



Vermicompost training to DWACRA Women



Workshop on Vermicompost



Workshop on Vermicompost



Vermicompost training



Vermicompost training to Agriculture Students



Vermicompost training



Vermicompost training

Paper Recycling Unit



Paper Recycling Unit



Preparation of Greeting card sheets



Cleaning of Sunken Pits



Cleaning of yard



Plantation Drive



Distribution of Samplings

Mega Health Camps



Eye Camp



Clinical Lab



Health camp



General Medicine



Gynaec camp



Inaugural of Health camp



Health Checkup



Health Checkup



Health Checkup



Inaugural of Health Checkup



Vaccination Drive



Vaccination Drive



Maintenance of Aquarium



Maintenance of Outdoor Aquarium



Garden Lizard



Butterflies



Maintenance of Sunken pits



Maintenance of Sunken pits

**CH.S.D.ST.THERESA'S COLEGE FOR WOMEN,
(AUTONOMOUS) ELURU
ELURU DISTRICT.**



GREEN AUDIT REPORT



AP Pollution Control Board

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