

**ADUSUMILLI GOPALAKRISHNAIAH AND SUGARCANE GROWERS
SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE**

(Autonomous)

VUYYURU-521165, KRISHNA Dt., A.P.

Accredited by NAAC with "A" Grade



DEPARTMENT OF BOTANY

GREEN AUDIT



CONTEXT

The term 'Environmental audit' or 'Green audit' means systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. Green Audit focuses on energy conservation, use of renewable sources, rain water harvesting, efforts of carbon neutrality, planting of trees, hazardous waste management and E-waste management. Finally, Green audit is a requirement of NACC assessment to the Colleges and Universities.

It aims to analyze environmental practices within and outside the institution, which will have an impact on the eco-friendly ambience. Green audit makes an institution to review the measures taken by it to combat pollution. The green audit practically involves energy conservation, use of renewable sources, rain water harvesting, and efforts of carbon neutrality, planting of trees, hazardous waste management and E-waste management. Finally, Green audit is a requirement of NACC assessment to the Colleges and Universities.

There are many advantages of green audit. Green Audit could help to shield the environment. It recognizes the cost saving methods through waste minimizing and managing strategies. It points out prevailing and forthcoming complications. It validates conformity with the implemented laws Empower the organizations to frame a better environmental performance. It portrays a good image of a institution which helps building better relationships with the group of stakeholders. It enhance the alertness for environmental guidelines and duties

INTERNAL AUDIT TEAM

1.K. Satyanarayana	Principal
2.Dr. V. Sri ram	Coordinator, IQAC
3.Ch.Beulah Ranjani	HOD, Dept. of Botany
4.D.A. Kiranmayee	HOD, Dept. of Zoology
5.U.Ramprasad	HOD, Dept. of Physics
6. K. Ramesh	HOD, Dept. of Chemistry
7.T.Nagaprasad	HOD, Dept. of Computer Science

EXTERNAL AUDIT TEAM

1.Dr. Ratna kumari	Prof. & Univ. Head Department of Crop Physiology, Agricultural college, Bapatla
2.Jannu Rajesh	Assistant Engineer, Municipal corporation, Vuyyuru
3.Dr.Ch. Srinivasa Reddy	HOD, Dept. of Botany, SRR& CVRD Govt. Degree College, Vijayawada

CHAPTER-I: INTRODUCTION

1.1 About College

Adusumilli Gopalakrishnaiah and Sugarcane Growers College, Vuyyuru established on 12th August 1975 is managed by Siddhartha Academy of General and Technical Education. It is proud to proclaim, that we are imparting student-centric and skill-based education coupled with competitive skills, soft skills, ethics and environmental education. It is known for its Domicile of Excellence, a campus of inspiration. Reaccredited at Grade „A“ by the NAAC, Bengaluru in 2017, the college is committed for imparting best education in diversified disciplines.

It is evidenced that the college continuously thrives to be environment friendly by effective utilization of the available resources without depleting them. Regular annual investments made on developing greenery establish the commitment of Management for Environment. Further, the College is in forefront in organizing various activities related to environment such as Swatch Bharat Abhiyan, Janmabhumi, Maa Vooru, Vanamohotsav, Clean and Green awareness camps, energy conservation programs, utilization of solar energy and waste management by vermi composting etc.

LOCATION MAP OF COLLEGE



COLLEGE MAP

1.2 AIM AND OBJECTIVES OF GREEN AUDIT

The main objective of this Environmental and Green Audit is to get an opinion on the quality of various natural elements and to identify any conservation opportunities and implement possible best practices.

Government of India in 2006 has declared the National Environment Policy 2006 and made green audit mandatory to each industry. According to this policy it is a response to India's National commitment to a clean environment, mandated in the Constitution in Articles 48 A and 51 A (g), (DPSP) strengthened by judicial interpretation of Article 21 (National Environmental Policy 2006). It is recognized that the maintenance of the healthy environment is not the responsibility of the state alone. It is the responsibility of every citizen and thus a spirit of partnership is to be realized through the environment management of the country. By realizing the need of responsibility towards environment, NAAC, an autonomous body under UGC has added the concept of environmental audit in accreditation methodologies of universities and colleges.

Clean and Green environment make a person feel comfort, pleasant and peaceful, therefore teaching and learning will be effective and provides a stress less learning environment. Green auditing is one among the various efforts around the world to address environmental education issues. The main objective of the green audit is to promote the environment, management and conservation in the college campus.

Main objectives of Green Audit

- To recognize, diagnose and resolve the environmental problems and secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use on the campus
- To minimize the consumption of water and energy consumption and provide baseline information to enable organization to evaluate and manage environmental change, threat and risk.
- To train all stakeholders of the organization and empower them to contribute and participate in the environmental protection and facilitate them with different aspects of disaster management
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requires high cost
- To identify the risks of hazards and implement the policies for safety of stakeholders and to set up procedure for disposal of all types of harmful wastes
- To bring out a status report on environmental compliance

1.3 ADVANTAGES OF GREEN AUDITING

- To maintain greenery in campus
- To facilitate waste management through reduction of waste generation, solid- waste and water recycling
- To bring awareness in health consciousness among the stakeholders.
- To be a plastic free campus
- To instruct environmental education through systematic environmental management approach.

CHAPTER-II: PRE-AUDIT

2.1 Introduction on green auditing

A Nation's growth starts from its educational institutions, where the ecology is thought as a prime factor of development associated with environment. Educational institutions now a days are becoming more sensitive to environmental factors and more concepts are being introduced to make them eco-friendly. To preserve the environment within the campus, various view points are applied by the several educational institutes to solve their environmental problems such as promotion of the energy savings, recycle of waste, water reduction, water harvesting etc. The activities pursued by colleges can also create a variety of adverse environmental impacts.

Environmental auditing is a process whereby an organization's environmental performance is tested against its environmental policies and objectives. Green audit can be a useful tool for a college to determine how and where they are using the most of the energy or water resources. The college can then consider how to implement changes and make savings or to improve waste minimization plan. Green auditing can also create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of Green impact on campus. Green auditing promote financial savings through reduction of resource use. It gives an

opportunity for the development of ownership, personal and social responsibility for the students and teachers. Thus it is imperative that the college evaluate its own contributions toward a sustainable future.

2.2 Pre-auditing report

A pre-audit meeting was held on 18th September 2021 in our college campus. The meeting provided an opportunity to reinforce the scope and objectives of the audit and discussions were held on the practicalities associated with the audit. The committee is decided to audit different areas like water management, energy management, waste management etc. in our college campus. The committee resolved to conduct auditing during 20th -31st September 2021 with the help teaching, non-teaching, NSS and NCC students. Our Management has shown great interest and dedication towards green auditing during the pre-audit meeting. They encouraged all green activities such as awareness programmes on waste management, clean and green campus, minimization of e-waste and planting more trees on the campus etc. The management of the college will formulate policies based on the green auditing report.

2.3 Areas of green auditing

The study area includes degree college campus, botanical garden, intermediate block garden, college canteen, lawn, ground, PG block garden etc. The study area is very much eco-friendly of the Vuyyuru Rural area and rich in trees and biodiversity. The Department of Botany is maintaining a Botanical garden with medicinal plants, floriculture plants and fruit plants along with organic farming associated with Zoology department. Plants are grown here for academics, knowledge and to lessen pollution in the campus.



2.4 Methodology

Green auditing was conducted during 20th -30th September 2021 by our committee. The green audit began with physical verification on different facilities at the college, determining the different types of appliances and utilities like lights, taps, toilets, fridges, air conditioners etc. as well as measuring the usage per item (Watts indicated on the appliance or measuring water from a tap) and identifying the relevant consumption patterns (such as how often an appliance is used) and the impact that they have.

For our study convenience the entire college was divided into 9 blocks. viz., Entrance, Indoor stadium, Inter block garden, Canteen, UG& PG Labs, Basket ball court, Administrative office, Outdoor stadium surrounding the walking track and parking area. Different audit groups interviewed office staff, Principal, Teaching and non-teaching staff, students, parents and other stakeholders of the college. Discussions were also made with the PTA office bearers to clarify doubts regarding certain points. Verified college documents such as admission registers, registers of electricity and water charge remittance, furniture register, laboratory equipment registers, purchase register, audited statements and office registers. Collected college calendars, college magazines, annual report of the college and NAAC self-assessment reports, UGC report etc. The college and its premises were visited and analyzed by the audit-teams to gather information. Campus trees were counted and identified. Finally discussions were made with the college management regarding their policies on environmental management. Future plans of the college were also discussed.

CHAPTER-III: ONSITE AUDIT OBSERVATIONS AND RECOMMENDATIONS

3.1 Auditing of Water Management

Water plays a vital role for living beings. Our students and staff follow the best practice “SAVE WATER-SAVE LIFE”. Water, it is not only life; it is the backbone of economy of every country. Auditing of water management is an onsite survey which includes water sources, water consumption, irrigation, rain water, appliances and fixtures, and assessment to determine the water use and hence improving the efficiency of its use.

Observations

- The team observed that bore well and municipal water are the two major sources of water.
- The data collected from all the departments is examined and verified and on an average the total use of water in the college is 16000 L/day, which include 4000 L/day for drinking purposes, 3000 L/day for canteen, 2000L/day for toilets, 4000L/day for gardening and 3000L/day for laboratories.
- The students and staff use sufficient quantity of water and turn of taps immediately.
- College campus has 9 drinking water points, 15 water points for hand wash and cleaning lunch boxes
- Utmost care is taken for flow of water through pipes without any leakage
- To make judicious use of water available, the college has installed several water sprinklers in garden areas.
- During the survey, no loss of water is observed, neither by any leakages, or by over flow of water from overhead tanks.

Recommendations

- Set up an efficient water recycling system in the college canteen
- Increase the number of water taps and set up spray pattern or hand shower taps for reducing the consumption of water.



3.2 Rain water harvesting:

The rain water coming from roof tops and that flowing within the campus are collected in 6 percolation pits constructed in the campus to recharge ground water. The water is used for gardening.

Recommendations:

- It is suggested to install two more rain water harvesting system
- It is also suggested to construct a check dam through pumping of water.
- It is also suggested to utilise the rain water for laboratory purpose.



3.3 Auditing of Energy

Auditing of Energy includes energy sources, energy monitoring, energy consumption, lighting, appliances and vehicles. Energy use is clearly an important aspect of campus sustainability.

3.3.1 Solar Power

A 25 KV Solar energy system is established to reduce dependency on Grid power which is predominantly fossil fuel based. Green Energy Percentage is about 50%. In addition to decreasing an Institution carbon foot print, solar panels also generate a great deal of power. Our institution power bill is reduced by 50%. LED bulbs are used to reduce power consumption. Air conditioners are used at minimal temperatures for power conservation.

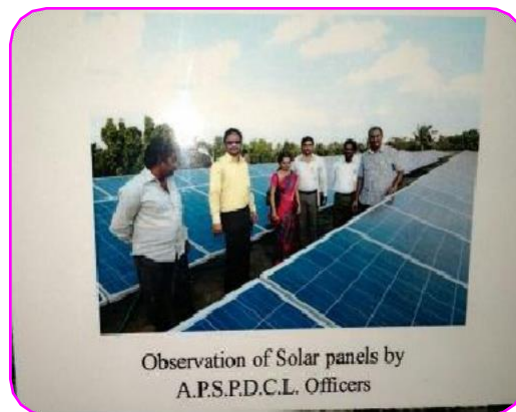
Observations:

- Average estimated production of units from solar system per day:100 units
- Average consumption of units per day from Grid before installation of solar energy system: 140-160 units
- Average consumption of units per day from Grid after installation of solar energy system:50-60% units

- As greenery is present all around the campus the utilization of Air conditioners is much reduced.

Recommendations:

Recommended to use solar powered UPS and Solar Street Lights.



3.4 Auditing of Green Area

The college campus is spread in about 13 acres of land and has green cover of about 60%, which includes road side trees, lawns, flower gardens, and medicinal plants. College has got about 50 to 60 various species of plants and few species of fauna.

Plants produce oxygen and give shelter to organisms. Plants produce wonderful therapeutic drugs to cure various normal and chronic diseases. Green area auditing includes plants, greenery and sustainability of the campus to ensure that the buildings conform to green standards. This also helps in ensuring that the Environmental Policy is enacted, enforced and reviewed using various environmental awareness programmes.

Observations:

- Huge number of variety of trees of age above 50 years is found in our college campus.
- The Department of Botany reviews periodically the list of trees planted in the garden, allot numbers to the trees, give scientific names to the trees and maintains records.
- Botanical garden is being maintained at the Department of Botany which consists of lot of medicinal plants.
- A separate rose garden with Kashmir Roses of different colours and wild roses is maintained by the Botany Department.
- Polyalthia longifolia are planted either side of pedestrian friendly roads.
- It was observed that campus is having 10 trees of different species and among them 65 is of medicinal importance.
- Various tree plantation programs are being organized every year at college campus with the assistance of NSS & NCC units.

Recommendations

- Planting of more medicinal plants every year in the campus is compulsory.
- Plants of Bonsai variety can be maintained.

- Set up a nursery for plants to be distributed to the students.
- Set up vegetable and fruit plant gardens
- Promote environmental awareness as a part of course work in various curricular areas, independent research projects, and community service.
- Create awareness of environmental sustainability and take actions to ensure environmental sustainability.
- Establish a College Environmental Committee (CEC) that will hold responsibility for the enactment, enforcement and review of the Environmental Policy.



3.4 Auditing of solid waste management

Production and disposal of plastic waste, paper waste, food waste and recycling comes under auditing of solid waste management. The possible ways of generation of solid waste in our college campus are from plants dry leaves, grass, food stuff, paper, glass, plastic, use and throw pens, single use water bottles, water packets, single use poly bags, electrical, electronic and packing materials ect.

Observations:

- The college has adopted steel cutlery replacing plastic glasses, plastic cups and disposable plates minimizing single use plastic generated in canteen.
- Single use plastic like packing material and cool drink bottles are still in use and may be phased out slowly by adopting feasible methods. However, these are being collected separately and disposed.
- Food wastes and non-biodegradable waste are collected in separate bins.
- Food waste is used by the canteen people for feeding their cattle.
- Non - biodegradable waste like metal cans and plastic are disposed to recyclers.
- The biodegradable waste (except paper) is transferred to the Vermi-Compost unit maintained by the Department of Zoology.
- Paper waste in any form is collected and separated carefully, stored in bags and finally disposed to the vendors.
- Metal waste and wooden waste is stored and given to authorized scrap agents for further processing.
- Single sided used papers reused for writing and printing in all departments
- Very less plastic waste is generated by departments and office.

Recommendations

- Installation of another vermiculture and compost units
- Students should be made more participative in solid waste management.
- Conduct seminars and workshops on environmental education
- Avoid plastic plates and plastic items in the college functions
- Declare the campus plastic free and arrange awareness programmes to make the campus plastic free





3.5 Auditing of liquid waste management

Liquid wastes that are generated in the institute are

- ✓ Septic tank effluents from various sanitary blocks.
- ✓ Water used for cleaning of utensils etc. from canteen and washing of hands.
- ✓ Wastewater from laboratories using chemicals
- ✓ Reject water from RO plant

Observations:

- ✓ College has got few open drains to convey this water. Wastewater generated from the toilets is disposed of into septic tanks located at different places in the campus.
- ✓ Canteen waste water is collected into separate drain and is being directed into natural drain passing near by the college campus.
- ✓ Chemical water generated from the laboratories is collected into 4 separate pits which are connected with the lab outlet pipes.
- ✓ The waste water generated by RO Plant is being channelized into separate drain and also used for floor cleaning.
- ✓ Waste water is from taps is channelled into 4 small sink pits and one large pit to improve ground water level.

Recommendations:

- ✓ It is recommended to discard usage of RO and go for alternative means for drinking water.
- ✓ To establish a centralized sewage treatment plant based on bio-membrane or any environment friendly based technology to become zero discharge campus and avoid usage of fresh water for gardening.
- ✓ To employ better methods of cleaning of vessels in canteen to conserve water while maintaining hygiene.



3.6 Auditing of E-Waste Generation

E-waste can be described as consumer and business electronic equipment that is near or at the end of its useful life. E-wastes mainly include electronic devices, such as computer systems, servers, monitors, electrical components, wires and any outdated machines etc.

Observations

- E-waste generated in the campus is very less in quantity
- E-wastes are disposed-off through authorized vendors.
- The E- waste and defective item from computer laboratory is being stored properly.
- The institution has decided to contact approved E-waste management and disposal facility in order to dispose E-waste in scientific manner

Recommendations

- It is recommended to collect e- waste from office and each department and keep in separate stores, and then transfer to disposal unit
- It is also recommended not to burn the waste electronic parts which produce poisonous gases.

CHAPTER-IV: POST AUDIT REPORT

1. It is evidenced that the college continuously thrives to be environment friendly by effective utilization of the available resources without depleting them.
2. Regular annual investments made on developing greenery establishes the commitment of Management for Environment.
3. Green auditing is being conducted by the College every year.
4. Irrespective of the academic programmes, environmental education is a part of curriculum at AG & SG Degree College Vuyyuru for which there are two credits for the students.
5. There are 6 rainwater harvesting pits established at both administrative and academic campuses, foreseeing future needs of water.

6. Specific waste management plans are adopted to manage solid waste in the campus but the use of plastic carry bags, cups/plates and flexi boards is observed inside the college.
7. All the blocks in the Campus should develop a garden in front of the building and the expenditure for the same may be met from the College Development Fund.
8. Green habitat concept is adopted in the college campus. Larger trees in the campus provide shade thus reducing the temperature in the campus.
9. Sufficient toilets are established in the campus but the separate toilets for differently disabled students should be modernized.
10. Contamination of water is less as most of the water utilized is from bore well.
11. College does not deal with any potentially hazardous chemicals except in Laboratories which are in very minute quantities and are disposed safely.
12. It is also observed that the college celebrates World Nature Conservation Day on 28th July, World Ozone Day on 16th September and National Pollution Day on 2nd December every year to bring awareness and environment consciousness in every student.

Final Recommendations

- The audit committee has given the following recommendations for better maintenance of green campus
- College should also offer consultancy projects on environmental auditing for other academic and research institutions
- To conduct seminars and workshops on environmental education
- More Rainwater pits can be prepared at appropriate places and restoration activities may be initiated to sustain the health of ponds in the campus
- For managing organic wastes, biogas plants may be established.
- Water purification treatment facilities in place of RO plant may be installed within the campus.
- Measures must be taken to avoid plastic plates, plastic items and flexi banners in the college.
- It is recommended to celebrate World Water Day on March 22nd to bring awareness on importance of water, to save water and rainwater harvesting techniques.





Green Field Survey 2020-21

S.No	Common Name of the Tree	Botanical Name	No .of Trees in the College Campus
1	Teak trees	Tectona grandis	67
2	Ashoka trees	Polyalthia longifolia	91
3.	Coconut Trees	Cocos nucifera	90
4.	Mango trees	Mangifera indica	8
5	Sapota trees	Achras sapota	4
6.	Erra turai	Delonix regia	4
7	Peltophorum	Peltophorum pterocarpum	6
8	Neem trees	Azadiracta indica	4
9	Ficus plants	Ficus species	56
10	Neredu trees	Syzygium cumini	1
11	Ganuga	Pongamia pinnata	9
12	Amla tree	Phyllanthus emblica	4
13	Indian Rosewood	Dalbergia sissoo	1
14	Rela	Cassia fistula	1
15	Nidra ganneru	Samania Samman	2
16	Cycas	Cycas religiosa	6
17	Auracaria(Christmas tree)	Auracaria sps	3
18	Royal palm	Roystonea regia	4
	Foxtail	archontophoenix	25
19	Traveller's Palm	Ravanela madagascariensis -	2

20	Duranta	Duranta plumeri	Many(Planted as border to lawn and roads)
21	Medicinal plants i)Tulasi ii)Kalabanda iii)Mint iv)Lemon grass v)Ashwa Gandha vi) Neem	Ocimum santum Aloe vera Mentha viridis Cymbopogon sps (1) Withania somnifera etc .(0)	Nearly 78plants have been maintained in the botanical garden since 2007
22	Rose plants	Iris kashmiriana	50
	Rose plants	Rosa indica	20
23	Grandis palms	Roystonea regia	02
24	Rafix palms	Rhapis excelsa	10
25	Pandanas		60
26	Ficus sps	Ficus benjamina	50
27	Sensoria sps	Dracaena trifasciata	02
28	Dracina	Dracina coularoma	05
29	Juprus		8
30	Cycus sps	Cycas revoluta	10
31	Pencile pine	Encyclopedia britannica	09
32	Addaku	Bauhinia purpurea	04
33	Kalanchoie	Kalanchoie pinnata	4
34	Mandaram	Hibiscus rosa sinusis	30
35	Erra Chandanam	Red Sandal	10
36	Ornamental plants		100

37	Water apple	<i>Syzygium samarangense</i>	3
38	Ornamental plants	(Mary gold & rose plant)	50
49	<i>Coleus bloomi</i>	<i>Coleus amboinicus</i>	02
50	Money plant	<i>Epipremnum aureum</i>	04
51.	<i>Acalypha red</i>	<i>Acalypha hispida</i>	Many(Planted as border to lawn and roads)
52	<i>Acalypha green</i>	<i>Acalypha wilkesiana</i>	Many(Planted as border to roads)
53	Bridal bouquet	<i>Plumeria pudica</i>	Many



Green Field Survey 2021-22

S.No	Common Name of the Tree	Botanical Name	No .of Trees in the College Campus
1	Teak trees	Tectona grandis	67
2	Ashoka trees	Polyalthia longifolia	91
3.	Coconut Trees	Cocos nucifera	50
4.	Mango trees	Mangifera indica	8
5	Sapota trees	Achras sapota	4
6.	Erra turai	Delonix regia	5
7	Peltophorum	Peltophorum pterocarpum	20
8	Neem trees	Azadiracta indica	6
9	Ficus plants	Ficus species	50
10	Neredu trees	Syzygium cumini	2
11	Ganuga	Pongamia pinnata	9
12	Amla tree	Phyllanthus emblica	3
13	Indian Rosewood	Dalbergia sissoo	1
14	Kouravulu Pandavalu Creeper	Couraopitha gynandropis	1
15	Australian tumma Tree	Acacia milaoxylon	1
16	Rela	Cassia fistula	1
17	Nidra ganneru	Samania Samman	2
18	Cycas	Cycas religiosa	6
19	Auracaria(Christmas tree)	Auracaria sps	2
20	Thuja(Christmas Tree)	Thuja sps	10
21	Traveller's Palm	Ravenala madagascariensis	3
22	Juprus	Juniperus communis	8
23	Rose plants		200
24	Grandis palms	Licuala grandis	2
25	Rafix palms	Rhapis excelsa	20
26	Pandanas	Pandanus amaryllifolius	100
27	Sensoria sps		30
28	Dracina coularoma	Dracaena marginata	01
29	Cycus sps		10
30	Kalanchoie	Kalanchoe blossfeldiana	4
31	Mandaram	Hibiscus rosa sinuses	20
32	Erra Chandanam	Red Sandal	10
33	Ornamental plants		20
34	Baheniya plants	Bauhinia blakeana	2

35	Naga malli trees	<i>Couropita guianensis</i>	2
36	kabandam	<i>Neolamarckia cadamba,</i>	2
37	Aedu akula pala	<i>Alstonia scholaris,</i>	7
38	Tella maddhi	Terminalia arjuna	4
39	Regu chettu	<i>Ziziphus jujuba</i>	1
40	Water apple	<i>Syzygium samarangense</i>	2
41	Star fruit	<i>Averrhoa carambola</i>	2
42	Bengall usiri	<i>Averrhoa bilimbi</i>	2
43	Tanikaya	Terminalia bellirica,	1
44	Chintha chettu	Tamarindus indica	1
45	Seetha phalam	Annona squamosa	2
46	Rama phalam	<i>Annona reticulata</i>	2
47	Jack fruit	Artocarpus heterophyllus	2
48	Oil palm	Elaeis guineensis	2
49	Royal palm	Roystonea regia	2
50	vavilaku	Vitex Negundo	1
51	vakkaya	<i>Carissa carandas</i>	2
52	Night queen	Cestrum nocturnum	1
53	Hemiliya	<i>Hamelia patens</i>	1
54	Punnaga puvvulu	Millingtonia hortensis	1
55	Golden flower trees	Cassia fistula	1
56	Medicinal plants		
57	Tulasi	Ocimum sanctum	4 types
58	Vamu aaku	Coleus amboinicus Lour	2 types
59	kalabandha	Aloe vera	2 types
60	Insulin plant	<i>Chamaecostus cuspidatus</i>	1
61	Poda pathri	<i>Gymnema sylvestre</i>	1
62	Bryophillum	Kalanchoe pinnata,	2
63	Nela vemu	Andrographis paniculata	2
64	Jade	Crassula ovata	6
65	Arva laneta	Aerva lanata	1
66	Mint	<i>Mentha piperita</i>	1
67	asparagus	<i>asparagus</i>	1
68	Sugandha pala veru	Hemidesmus Indicus	2
69	Sarpagandhi	Rauwalfia serpentine	6
70	Tella eswari	<i>Aristolochia indica</i>	2
71	Billa ganneru	Catharanthus roseus	2
72	Pippalu	Piper longum	2
73	Tamala paku	Piper betle	2
74	Atika mamidi	Boerhaavia diffusia	2
	Kagithapu puvvulu mokka	<i>Bougainvillea glabra</i>	15
75	Pogada	Mimusops elengi	2
76	Bottle brush	Callistemon citrinus	1

77	Jama	<i>Psidium guajava,</i>	4
78	Kashmir roses	ROSA EE `KASHMIR	400
79	Ixora	Ixora coccinea	6
80	mandara	Hibiscus rosa-sinensis	7
81	Desert rose	Adenium obesum	3
82	crotans	Crotan varigata	6
83	Tecoma (red,yellow)	Tecoma stans.	4
84	Nalla pasupu	Curcuma Caesia	1



DEPARTMENT OF BOTANY
Green Field Survey 2022-23

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14	Kouravulu Pandavalu Creeper	Couraopitha gynandropis	1
15	Australian tumma	Acacia milaoxylon	1
16	Rela	Cassia fistula	1
17	Nidra ganneru	Samania Samman	2
18	Cycas	Cycas religiosa	6
19	Auracaria(Conifer)	Auracaria sps	2
20	Thuja(Christmas Tree)	Thuja sps	10
21	Traveller's Palm	Ravenala madagascariensis	4
22	Juprus	juniperus communis	8
23	Rose plants	Rosa indica	200
24	Grandis palms	Licuala grandis	2
25	Rafix palms	Rhapis excelsa	20
26	Pandanas	Pandanus amaryllifolius,	100
27	Sensoria sps	<i>Dracaena trifasciata</i>	30
28	Dracina coularoma	Dracaena marginata	01
29	Cycus sps	Cycas revoluta	10
30	Kalanchoie	Kalanchoe blossfeldiana	4
31	Mandaram	Hibiscus rosa sinuses	20
32	Erra Chandanam	Red Sandal	10
33	Ornamental plants	-----	20
34	Baheniya plants	Bauhinia blakeana	2
35	Naga malli trees	<i>Couroupita guianensis</i>	2
36	kabandam	<i>Neolamarckia cadamba,</i>	1

37	Aedu akula pala	<i>Alstonia scholaris,</i>	7
38	Tella maddhi	<i>Terminalia arjuna</i>	4
39	Regu chettu	<i>Ziziphus jujuba</i>	1
40	Water apple	<i>Syzygium samarangense</i>	2
41	Star fruit	<i>Averrhoa carambola</i>	2
42	Bengal usiri	<i>Averrhoa bilimbi</i>	2
43	Tanikaya	<i>Terminalia bellirica</i>	1
44	Karaka	<i>Terminalia chebula</i>	1
45	Chintha chettu	<i>Tamarindus indica</i>	1
46	Seethaphalam	<i>Annona squamosa</i>	2
47	Lakshmana phalam	<i>Annona Muricata</i>	2
48	Rama phalam	<i>Annona reticulata</i>	2
49	Jack fruit	<i>Artocarpus heterophyllus</i>	2
50	Dragon fruit	<i>Dracaena trifasciata</i>	3
51	Fashion fruit	<i>Passiflora edulis</i>	1
52	Kasi maredu	<i>Aegle marmelos</i>	1
53	Bixa(food colour plant)	<i>Bixa orellana</i>	1
54	Oil palm	<i>Elaeis guineensis</i>	2
55	Royal palm	<i>Roystonea regia</i>	2
56	vavilaku	<i>Vitex Negundo</i>	1
57	vakkaya	<i>Carissa carandas</i>	2
58	Night queen	<i>Cestrum nocturnum</i>	2
59	Hemiliya	<i>Hamelia patens</i>	11
60	Punnaga puvvulu	<i>Millingtonia hortensis</i>	1
61	Golden flower trees	<i>Cassia fistula</i>	5
62	Nalleru	<i>Cissus quadrangularis</i>	2 types
63	Nepalam	<i>Jatropha gossypifolia</i>	1
64	Buddha belly	<i>Jatropha podagrica</i>	2
65	Jeedi mamidi	<i>Anacardium occidentale</i>	1
66	Sweet narinja	<i>Citrus sinensis</i>	1
67	Pampara panasa	<i>Citrus maxima,</i>	1
68	Kagita puvvu	<i>Bougainvillea glabra</i>	6
69	Tulasi	<i>Ocimum sanctum.</i>	4 types
70	Vamu aaku	<i>Coleus amboinicus</i>	2 types
62	kalabandha	Alove veera	2 types
63	Insulin plant	<i>Chamaecostus cuspidatus</i>	1
64	Poda pathri	<i>Gymnema sylvestre</i>	1
65	Bryophillum	<i>Kalanchoe -Bryophillum</i>	1
66	Nela vemu	<i>Andrographis paniculata</i>	2
67	Jade	<i>Crassula ovata</i>	10
68	Arva laneta	Arva laneta	2
69	Mint	<i>Mentha piperita</i>	5
70	asparagus	<i>asparagus secates</i>	5
71	Sugandha pala veru	<i>Hemidesmus Indicus.</i>	2
72	Sarpagandhi	<i>Rauvolfia serpentina</i>	4

73	Tella eswari		2
74	Billa ganneru	Catharanthus roseus	2
75	Pippalu	Piper longum	2
76	Tamala paku	Piper betle	2
77	Atika mamidi	Boerhaviaa diffusa	2
78	Kagithapu puvvulu mokka	Bougainvillea glabra	15
79	Pogada	Mimusops elengi	2
80	Bottle brush	Callistemon coccineus	1
81	Jama	Psidium guajava	4
82	Kashmir roses	Rosa 'Kashmir',	400
83	nuruvarahalu	Ixora coccinea,	6
84	mandara	Hibiscus rosa-sinensis	7
85	Desert rose	Adenium obesum	1
86	crotans	Codiaeum variegatum	6
87	Tecoma (red,yellow)	Tecoma stans.	4
88	Nalla pasupu	Curcuma caesia	1
89	Paciflora	Passiflora incarnata	1
90	Silver dust	Silver dust	
91	Pine	'Pinus roxburghii'.	1
92	Minigeranium	Geranium pusillum	1
93	Legas stomia	Lagerstroemia speciosa	2
94	Valu jada	Phyllodium longipes	2
95	Legas stromia	Lagerstroemia indica,	2
96	Crynam lily	Crinum xanthophyllum	4



GREEN AUDIT CERTIFICATE

This is to certify that an Environment and Green audit for AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru has been conducted during 20th - 30th September 2021 to assess the Institute's Green initiative planning, efforts and activities implemented in the College campus like Plantation, Waste Management, Rain Water Harvesting Green Campus Management and Conservation of Energy & Conservation of Water. The green audit is also aimed to assess the impact of green initiatives for maintenance of Eco-friendly campus. The efforts taken by the College towards Environmental and sustainability is highly appreciated and commendable.

S. Ratna Kumari

(S. Ratna Kumari)

Dr. S. Ratna Kumari
Professor & Univ Head
Department of Crop Physiology
Agricultural College
BAPATLA - 522 101.

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The efforts taken by the College towards Environment and sustainability is highly appreciated and commendable.

Ch Srinivasa Reddy 30/09/2021
Dr. CH. SRINIVASA REDDY
LECTURER IN BOTANY
SRR & CVR GOVT. DEGREE COLLEGE
VIJAYAWADA-520 004

GREEN AUDIT CERTIFICATE

This is to certify that an Environment and Green audit for AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru has been conducted during 23rd - 26th March 2022 to assess the Institute's Green initiative planning, efforts and activities implemented in the College campus like Plantation, Waste Management, Rain Water Harvesting, Green Campus Management and Conservation of Energy & Conservation of Water. The green audit is also aimed to assess the impact of green initiatives for maintenance of Eco-friendly campus.

The College has submitted necessary data and credentials for scrutiny. The activities and measures carried out by the college have been verified. The efforts taken by the College towards Environment and sustainability is highly appreciated and commendable.


COMMISSIONER 16/4/2022
Vuyyuru Nagara Panchayat