## S.V.K.P & Dr K.S RAJU ARTS SCIENCE COLLEGE(A)

#### **PENUGONDA**

## **GREEN AUDIT REPORT 2022-23**





#### **INTRODUCTION:**

In scenario people are not caring of nature, they are directly or indirectly damaging the environment and it causes problems like; global warming, difficulties in maintaining ozone layers, air pollution, water pollution etc. Green Audit is the most efficient & ecological way to slove such a environmental problem. For protecting the nature as a human being we have to show our sense of humor towards the mother earth. In corporate sector the practice of saving environment through the various programmes like CSR (Corporate Social Responsibility), GO Green, Save Water, Save Trees, Plantation of trees are to be taken. It will definitely work for the future. (Betianu, 2008). That is the only way out to safeguard the planet. The Green Audit has been actively taken by the department of P.G BOTANY, S.V.K.P& Dr.K.S.RAJU A & S COLLEGE. It is necessary to conduct a green audit in college campus because student aware of the green audit, its advantages to save the planet & they become good citizen of our country. Green audit and sustainable development process help to reduce the wastage and associated cost as well as increases the product quality. Obviously, there is relationship between Green Audit and Sustainable Development of the any business organization. The primarily needs for achieving the sustainable development of the business are to determine the Green Audit policy, Green Audit Framework, Accurate implementation, and Result analysis of it. Strong Green Auditprocess can help to achieve the sustainability. Green Audit framework helps to achieve the goal set by an organization. Green Audit is linked to Sustainable development process. Green audit and sustainable development process help to reduce the wastage and associated cost as well as increases the product quality.

#### II. Literature Review

#### 1 Mathews (1997) and Matiş and Ienciu (2010):

Mathews, Matis & Ienciu found that environmental accounting has known to be in four stages in its development (1970-1980,1981-1994, 1995-2001, 2002-onwards) at the current stage of the knowledge about the green auditing. Although if there are four stages of the development of environmental auditing

our knowledge will approach only the last two stages because beneficial study was conducted in this period and also concept of environmental audit was started and developed in that period.

# MEMBERS OF GREEN AUDIT COMMITTEE

1. Dr. Y.V.V APPA RAO Principal & Chairman

2. Sri K. SASI KUMAR IQAC co-ordinator

3. Smt G.JYOTHI Co-ordinator

4. Sri T.VENKATESWARLU Member

5. Dr U.D.V.P.PULLA RAO Member

6. Smt P.NIRMALA MARY KUMARI Member

The Green Audit of is Requirement of NACC Committee to the Degree&P.G colleges.It is necessary to conduct a green audit in college campus because student aware of the green audit, its advantages to save the planet & they become good citizen of our country. The green audit practically involves use of renewable sources, conservation of the energy, rain water harvesting program, and efforts of carbon neutrality, plantation of trees, E-waste management and hazardous waste management. The national & local governments keeping lots of efforts for maintaining a planet green.

Also Environment is a compulsory subject to all batcher student and arrange variousprogramme so that student are much aware of the save planet, keep it green & also save energy.

# Activities organized to create greenery and its conservation atcollege campus is as follows:

- Plantation of diversified species
- Vegetative propagation
- uses of Medicinal plants
- Identification of Plant species
- Plantation of diversified species:

To create green cover, Eco-friendly atmosphere, pure oxygen at the college campus, plantation program is organized every year with involving all Students, Principal and all faculty members of various Departments. In this session

VanamManam, Janmabhoomi, VanaMahotsav and Neeru-chettu programs were organized and about 500 Ornamental, Avenue, Medicinal plants with rare and exotic beautiful trees was planted in Botanical garden and other parts of college campus. To keep the greeneries in the campus, we regularly maintain the gardens which are looked after by paid staff under the guidance of Green audit committee members. Moreover, Every year We try to new plant new plants

#### **Vegetative propagation:**

To learn how to propagate vegetative garden, training program is organized for students every year by expert gardener. Students learned various propagation techniques like cutting, grafting, etc.

#### **Uses of Medicinal plants:**

There are many Medicinal plants in the Botanical garden which have Medicinal value. However the students are unaware of their use and they can't identify the particular plants. Therefore faculty of Botany department helps the students in identifying different medicinal plants with their scientific names and also their Medicinal use.

#### **Identification of Plant species:**

There are so many plant species present in the college campus. The faculty of Botany department audited and identified various plant species with the help of flora. Objectives of the Green Audit Committee:

- 1. **Verifying compliance:** Verifying compliance with standards or best available techniques.
- 2. **Identifying problems:** Detecting any leakage, splits or other such problems with the operations and processes.
- 3. **Formulating Environmental policy:** Formulating the organization's Environmental policy if there is no existing policy.
- 4. **Measuring Environmental impact:** Measuring the environmental impact of each and every process and operation on the water, soil, worker health and safety and society at large.
- 5. **Measuring performance:** Measuring the Environmental performance of an organization under best practice.
- 6. **Confirming Environmental management system effectiveness:** Givingan indication of the effectiveness of the system and suggestions for improvement.

- 7. **Providing a database:** Providing a database for corrective action and future plans.
- 8. **Developing the organization's Environmental strategy:** Enabling management to develop its Environmental strategy for moving towards a greenery corporate and performance culture.
- 9. **Communication:** Communicating the Environmental performance to its stakeholders though reporting will enhance the image of the College

#### **General Steps:**

- 1. Systematic and comprehensive data collection.
- 2. Documentation with physical evidences.
- 3. Independent periodic evaluation with regulatory requirements and appropriate standards. Systematic and comprehensive improvement and management of existing system.

#### The audit process:

The present audit is a Pre-audit to collect the details required for external auditing and Pre-audit activities. The pre-audit activities include the following.

- 1. The sites / area / division that are to be audited, need to be determined and selected.
- 2. The audited were informed of the date of the audit enabled them to adjust and become used to the concept.
- 3. The audit scope were identified. The auditee was consulted when establishing the scope.
- 4. The audit plan was designed in such a way that it accommodated changes based on information gathered during the audit and effective use of resources.
- 5. Green Audit Committee and assignment of responsibility were established.
- 6. The chosen working papers were collected. This facilitated the auditor's investigations on the sites.
- 7. The background information on the facility including the facility' organization, layout and processes, and the relevant regulations and standards, were collected.
- 8. The background information on the site's historical uses, and the location of soil and groundwater contamination were collected.

9. The pre-audit questionnaire was informed to auditee (Humphrey and Hadley - 2000).

#### **Onsite audit activities:**

The onsite audit includes

- 1. The opening meeting is the first step between the Green Audit team and dept. of Botany. In this meeting the purpose of audit, the procedure and the time schedule were discussed. Site inspection is the second step for onsite activity. In this step the auditteam discovered matters which are important to the audit but which were identified at the planning stage.
- 2. Onsite phase of the audit developed a working understanding of how the facility manages the activities that influence the environment.
- 3. If there is one works Assessed strengths and weaknesses of the auditee's management controls and risks associated with their failure were established
- 4. Gathering audit evidence i.e. collecting data and information using audit protocol.
- 5. Communicated with the staff of the auditee to obtain most information.
- 6. Evaluated the audit evidence against the objectives established for the audit.team discovered matters which are important to the audit but which werenot identified at the planning stage.
- 7. Onsite phase of the audit developed a working understanding of how the facility manages the activities that influence the environment.
- 8. If there is one works Assessed strengths and weaknesses of the auditee's management controls and risks associated with their failure were established
- 9. Gathering audit evidence i.e. collecting data and information using audit protocol.
- 10. Communicated with the staff of the auditee to obtain most information.
- 11. Evaluated the audit evidence against the objectives established for the audit.
- 12. An exit meeting to explain the audit findings (Humphrey and Hadley-2000).team discovered matters which are important to the audit but which were not identified at the planning stage.
- 13. team discovered matters which are important to the audit but which werenot identified at the planning stage.
- 14. Onsite phase of the audit developed a working understanding of how the

facility manages the activities that influence the environment.

- 15.If there is one works Assessed strengths and weaknesses of the auditee's management controls and risks associated with their failure were established
- 16. Gathering audit evidence i.e. collecting data and information using auditprotocol.
- 17. Communicated with the staff of the auditee to obtain most information.
- 18. Evaluated the audit evidence against the objectives established for the audit. 19.An exit meeting to explain the audit findings (Humphrey and Hadley-2000).

#### **Procedure followed:**

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

- a. Identification of Plant species and Bio-diversity.
- b. Analysis of Water quality and usage.
- c. Analysis of Energy consumption and costs.

Analysis of waste generation and disposal all the data were united and based on these, a report was formulated

#### Report 1:

Identification of Plant species and Bio-diversity in the college campus, based on our data collected, there are 4833 plants in the college campus. So, 4833 plants in our college contribute to the Oxygen supply that we utilize. Being situated in the urban area, our college is exposed to various atmospheric pollutants from vehicles as well as by other external means. Based on our calculation, the different sources of carbon-dioxide emitted to our college are:

- i. Refrigerators
- ii. Air conditioners
- iii. RO water Plants
- iv. Mobiles etc.
- 1. Vehicles on the days of data collection, there were 5 cars, 62 bikes and 18 scooters in our campus, which in turn proves us that these vehicles may contribute to high carbon-dioxide emission. There are 8 refrigerators, 16 air conditioners in our campus. The students, teaching and non-teaching

- staff and the visitors also contribute to carbon-dioxide emission.
- 2. The Vermi-compost unit recently established by the dept. of zoology. All the fallen leaves and food waste are collected from the Botanical garden and hostels are used as compost. Plastic wastes, plastic papers and bottles are collected by the students and stored at Vermi-compost compound wall for the purpose of recycling.
- 3. Analysis of water quality and usage of the college campus possesses many water outlets. Our students have counted the total number of taps, rain water harvesting pits. We have found that in total, there are 75 taps, 1 RO water Plants and rain water harvesting pits worth 20,000 litres.
- 4. Analysis of Energy consumption and costs the college is well equipped with electricity supply. Each department possess computers, printers, fans, plug points, tube lights, bulbs etc.
- 5. General Information about College.

S.V.K.P&Dr K.S Raju Arts & Science college is present in 11.45 Acars.

1166 sq.m

471.3 sq.m

Administrative Block - 2688 sq.m U.G Block(North) - 3817 sq.m U.G Block(West) - 3386 sq.m P.G Block(West) - 1612 sq.m P.G Block(South) - 5161 sq.m Asbestas shed - 2957 sq.m Womens Hostel - 8748 sq.m Mens Hostel - 4738 sq.m Open Air Theater - 6937 sq.m U.G.C IX Plan building - 314 sq.m Canteen - 627 sq.m Play ground - 12573 sq.m Cricket ground - 8000 sq.m Basket ball court - 420 sq.m Running track - 2247 sq.m Hand ball court - 800 sq.m Wally ball court - 824 sq.m Ball batmenten court - 288 sq.m Chemistry back side 2012 sq.m

Botany garden

Rusa building

In addition to these equipment, our college also has

- Spectrophotometer
- Horizontal and vertical electrophoresis
- A distillation unit
- Digital calorimeter
- 2 Autoclaves:
- 3 laminar air flow
- An incubator
- 3 hot air oven
- 4 centrifuges
- 5 telephones
- LCD Projectors
- Hand mikes
- A bell
- 6. Analysis of waste generation and disposal wastes cannot be avoided in any environment. Wastes can be classified as biodegradable and non-biodegradable wastes. Biodegradable wastes include food wastes; which can be easily decomposed by the bacteria in soil. But non-biodegradable wastes are those which cannot be degraded by any organism and remain as such for many years
- **1. Canteen:** The food waste generated from the canteen is collected and given to vermi compost unit and dogs. Plastic waste is generally less generated from the canteen. The plastic waste kept at blocks of the vermi compost compound wall.
- **2.** Library: The most generated waste is paper waste. It is taken for recycling.
- **3. Store:** not much waste is generated. But the paper waste and plastic covers are collected, separated and kept at blocks of the vermi compost compound wall.
- **4. Office:** Paper waste generated are recycled and reused.
- **5. Garden:** Plastic and paper waste is comparatively less. Fallen leaves are collected and used in vermi-compost unit
- **6.Seminar hall:** The wastes are collected after each programed and dumbed it.

- **7 Bathroom:** The wastes are collected and burned in an incinerator behind the convent.
  - 8. Classrooms: Paper wastes are collected in the waste basket and recycled.
  - **9. Laboratory:** The broken glass wastes and the useless instruments are disposed for recycling after thorough washing.
  - **10. College Premises:** Plastic waste generated is usually less. But paper waste is generated in a larger amount

#### **Observations:**

There are sufficient water outlets for the students, staff and all the departments. But it is essential to check whether all these are working or not and whether the taps are leaking or not.

Fortunately, the students of UG, PG, Teaching and Non-Teaching staff of the collegeare available to clean the college campus

#### From entrance gate to administrative block:

S.No	Name of the plant	Family	Habitat T/S/H/C	Uses	No.of plants
1	Duranta repens	Verbinaceae	S	Avenue	443
2	Azadirachta indica	Meliaceae	T	Timber	251
3	Ficus blakiana	Moraceae	T	Timber	161
4	Murraya koenigii	Rutaceae	T	Edible	118
	Cassia fistula	Fabaceae	T	Timber	03
5					

#### India map to silver jublee park:

S.No	Name of the plant	Family	Habitat T/S/H/C	Uses	No.of plants
1	Phyllanthus niruri	Euphorbiaceae	Н	Medicinal	197
2	Duranta repens	Verbinaceae	S	Avenue	180
3	Azadiracta indica	Meliaceae	T	Timber	171
4	Ruellia tuberosa	Apocynaceae	Н	Weed	137
5	Tridax procumbens	Asteraceae	Н	Weed	132
6	Vernonia cineria	Asteraceae	Н	Weed	105
7	Acalypha wilkesiana	Euphorbiaceae	S	Avenue	95
8	Ixora coccinea	Rubiaceae	S	Avenue	36
9	Ficus blackiana	Moraceae	T	Timber	27

10	Hibiscus rosa-	Malvaceae	S	Ornamental	22
	sinensis				
11	Ocimum sanctum	Lamiaceae	S	Medicinal	19
12	Agave Americana	Asparagaceae	Н	Avenue	15
13	Tagetus species	Asteraceae	Н	Ornamental	10
14	Euphorbia hirta	Euphorbiaceae	Н	Weed	09
15	Clitoria ternata	Fabaceae	C	Ornamental	08
16	Terminalia catappa	Combretaceae	T	Timber	08
17	Nerium odorum	Apocynaceae	S	Ornamental	07
18	Syzygium jambo	Myrtaceae	T	Timber	05
19	Mangifera indica	Anacardiaceae	T	Timber	04

#### MBA block side garden to MCA block front side

S.No	Name of the plant	Family	Habitat T/S/H/C	Uses	No.of plants
1	Duranta repens	Verbinaceae	S	Avenue	105
2	Ruellia tuberosa	Apocynaceae	Н	Weed	46
3	Acalypha indica	Euphorbiaceae	Н	Weed	41
4	Murraya koienigi	Rutaceae	T	Timber	30
5	Hibiscus rosa- sinensis	Malvaceae	S	Ornamental	18
6	Ocimum sanctum	Lamiaceae	S	Ornamental	20
7	Parthenium hysterophorus	Asteraceae	Н	Weed	21
8	Croton bonplandianum	Euphorbiaceae	Н	Weed	06
9	Crossandra infundibuliformis	Lamiaceae	S	Ornamental	06
10	Carica papaya	Caricaceae	T	Edible	06
11	Phyllanthus niruri	Euphorbiaceae	Н	Medicinal	05
12	Plumeria pudica	Apocynaceae	S	Ornamental	05
13	Ixora coccinea	Rubiaceae	S	Ornamental	05
14	Azardiracta indica	Meliacae	T	Timber	04
15	Allmanda cathartica	Apocynaceae	S	Ornamental	05
16	Psidium guajava	Myrtaceae	T	Edible	03
17	Elaeocarpus serratus	Elaeocarpaceae	T	Timber	01
18	Araucaria sp	Aracariaceae	T	Ornamental	01
19	Catharanthus roseus	Apocynaceae	Н	Medicinal	04
20	Aegle marmelos	Rutaceae	T	Timber	01
21	Jasminum sps	Jasminaceae	S	Ornamental	01
22	Curcuma longa	Zingiberaceae	S	Edible	02
24	Ficus blackiana	Moraceae	T	Timber	83
26	Terminalia catappa	Combretaceae	T	Edible	15

27	Reodiscolor sps	Commalinaceae	Н	Ornamental	15
28	Agave sps	Asparagaceae	Н	Ornamental	12
29	Nerium odorum	Apocynaceae	S	Ornamental	11
30	Cassia fistula	Fabaceae	T	Timber	10
31	Thuja	Cupressaceae	T	Ornamental	01
32	Musa paradisiaca	Musaceae	T	Edible	01
33	Anthocephalus cadamba	Rubiaceae	T	Timber	01
34	Peltophorum – pterocarpus	Fabaceae	T	Timber	01

#### **Hostel Garden and College Garden:**

S.No	Name of the plant	Family	Habitat T/S/H/C	Uses	No.of plants
1	Duranta repens	Verbinaceae	S	Avenue	334
2	Murraya koenigii	Rutaceae	T	Edible	173
3	Azardiracta indica	Meliacae	T	Timber	57
4	Euphorbia mili	Euphorbiaceae	Н	Ornamental	49
5	Agave americana	Asparagaceae	Н	Ornamental	24
6	Ruellia tuberosa	Apocynaceae	Н	Weed	20
7	Plumeria alba	Apocynaceae	S	Ornamental	09
8	Anthocephalus cadamba	Rubiaceae	Т	Timber	06
9	Psidium guajava	Myrtaceae	T	Edible	06
10	Pongamia glabra	Fabaceae	T	Timber	05
11	Cocos nucifera	Arecaceae	T	Edible	05
12	Hibiscus rosa- sinensis	Malvaceae	S	Ornamental	05
13	Araucaria	Aracariaceae	T	Ornamental	04
14	Ocimum sanctum	Lamiaceae	S	Medicinal	04
15	Delonix regia	Fabaceae	T	Timber	04
16	Tectona grandis	Lamiaceae	T	Timber	04
17	Syzygium jumbo	Myrtaceae	T	Edible	04
18	Citrus aurantifolia	Rutaceae	T	Edible	04
19	Ixora coccinea	Rubiaceae	S	Ornamental	04
20	Couropitia guinensis	Lecythediaceae	Т	Timber	03
21	Mangifera indica	Anacardiaceae	T	Edible	03
22	Acalypha indica	Euphorbiaceae	Н	Weed	01
23	Terminalia catappa	Combretaceae	T	Edible	01
24	Artocarpus heterophyllus	Moraceae	T	Timber	01

#### Fountain park

S.No	Name of the plant	Family	Habitat T/S/H/C	Uses	No.of plants
1	Ocimum sanctum	Lamiaceae	S	Medicinal	11
2	Araucaria sps	Aracariaceae	T	Avenue	4
3	Durantha repens	Verbinaceae	S	Avenue	48
4	Psidium guajava	Myrtaceae	T	Edible	3
5	Couropitia guinensis	Lecythediaceae	T	Timber	5
6	Murayya koenigii	Rutaceae	T	Edible	12
7	Azardiracta indica	Meliaceae	T	Timber	4
8	Delonix regia	Fabaceae	T	Timber	3
9	Anthocephalus cadamba	Moraceae	T	Timber	2
11	Cocos nucifera	Aricaceae	T	Edible	2
12	Parthenium hysterophorus	Asteraceae	Н	Weed	53
13	Tridax procumbens	Asteraceae	Н	Weed	15
14	Rosa indica	Rosaceae	S	Medicinal	55
15	Chrysanthemum indica	Asteraceae	Н	Medicinal	11
16	Hibiscus- rosa – sinensis	Malvaceae	S	Avenue	15
17	Almonda cathertica	Apocynaceae	T	Avenue	9
18	Plumeria pudica	Apocynaceae	T	Avenue	8
19	Agave angustifolia	Asparagaceae	Н	Avenue	31
20	Ficus microcarpa	Moraceae	T	Timber	8

#### **Administrative Block Left Side And Water Plant**

S.No	Name of the plant	Family	Habitat T/S/H/C	Uses	No.of plants
1.	Agave angustifolia	Asparagaceae	Н	Avenue	2
2.	Jasminum grandiflorum	Oleaceae	S	Avenue	3
3.	Dieffenbachia bowmannii	Araceae	Н	Avenue	59
4.	Oreodoxa regia(Palm sps)	Areaceae	Т	Avenue	4
5.	Rheo discolor	Commelinaceae	Н	Avenue	22
6.	Durantha repens	Verbinaceae	S	Avenue	146

	Nerium odorum	Apocynaceae	S	Avenue	1
8.	Ocimum sanctum	Lamiaceae	S	Avenue	8
9	Cycus revoluta	Cycadaceae	S	Avenue	2
10	Pteris quadriaurita	Pteridaceae	S	Avenue	12
11	Ficus benjamina	Moraceae	Н	Avenue	63
12.	Psidium guajava	Myrtaceae	T	Edible	11
13	Hibiscus rosa	Malvaceae	S	Avenue	4
	sinensis				
14	Tagetus patula	Asteraceae	S	Avenue	3
15	Syzygium jambo	Myrtaceae	T	Edible	1
16	Araucaria sps	Aracariaceae	T	Avenue	2
17	Cycas quadriaurita	Cycadaceae	S	Avenue	2

### **Botany Garden**

S.No	Name of the plant	Family	Habitat T/S/H/C	Uses	No.of plants
1	Rosa indica	Rosaceae	S	Avenue	19
2	Bougainvillea spectabilis	Nyctaginaceae	S	Avenue	13
3	Agave angustifolia	Asparagaceae	S	Avenue	66
4	Ocimum sanctum	Lamiaceae	S	Avenue	14
05	Areca catechu	Arecaceae	T	Avenue	21
6	Ixora	Rubiaceae	S	Avenue	11
7	Durantha repens	Verbinaceae	S	Avenue	102
8	Kaempferia galanga	Zinziberaceae	S	Medicinal	9
9	Spathodea campanulata	Bignoniaceae	T	Timber	1
10	Rheo discolar	Commalinaceae	Н	Avenue	17
11	Ficus microcarpa	Moraceae	T	Timber	13
12	Nycthanthes arbor-tristis	Nyctaginaceae	S	Avenue	2
13	Aclypha wilkesiana	Euphorbiaceae	S	Avenue	1
14	Ravenela madagascariensis	Strelitziaceae	T	Avenue	2
15	Carica papaya	Caricaceae	T	Edible	2
16	Pteris	Pteridaceae	T	Timber	10
17	Plectranthus amboinicus	Lamiaceae	S	Medicinal	1
18	Aerva lanata	Amaranthaceae	Н	Weed	2
19	Andrographis paniculata	Acanthaceae	Н	Weed	1

20	Aloe barbadensis	Asphodelaceae	Н	Medicinal	2
21	Chrysanthemum	Asteraceae	Н	Avenue	1
	indicum				
22	Bryophyllum	Crassulaceae	Н	Avenue	5
	pinnatum				
23	Tecoma stans	Bignoniaceae	T	Avenue	1
24	Acalypha indica	Euphorbiaceae	Н	Weed	2
25.	Euphorbia sps	Euphorbiaceae	Н	Avenue	5
26	Catharanthus	Apocynaceae	Н	Medicinal	2
	roseus				
27	Hibiscus rosa-	Malvaceae	S	Avenue	10
	sinensis				
28	Asparagus	Asparagaceae	S	Medicinal	2
	recemosus				
29.	Cinnamomum	Lauraceae	S	Medicinal	1
	zeylanicum				
30	Plumeria rubra	Apocynaceae	S	Avenue	1
31	Phyllanthus cicirus	Euphorbiaceae	Н	Avenue	2
32	Mentha piperita	Lamiaceae	Н	Medicinal	1
33	Cycas revoluta	Cycadaceae	S	Avenue	1

#### **Herbal Garden**

S.No	Name of the plant	Family	Habitat T/S/H/C	Uses	No.of plants
1	Carica papaya	Caricaceae	T	Medicinal	21
2	Musa paradisiaca	Musaceae	T	Medicinal	5
3	Phyllanthus emblica	Phyllanthaceae	T	Medicinal	3
4	Azardiracta indica	Meliaceae	T	Medicinal	2
5	Saraca asoca	Caesalpinaceae	T	Medicinal	1
6	Ficus religiosa	Moraceae	T	Medicinal	1
7	Pachygone ovate	Menispermaceae	S	Medicinal	1
8	Feronia limonia	Rutaceae	T	Medicinal	1
9	Sapindus laurifolius	Sapindaceae	T	Medicinal	8
10	Annona muricata	Annonaceae	T	Medicinal	1
11	Annona reticulata	Annonaceae	T	Medicinal	1
12	Ziziphus mauritiana	Rhamnaceae	T	Medicinal	18
13	Calotropis procera	Apocynaceae	S	Medicinal	2
14	Manilkara zapota	Sapotaceae	T	Medicinal	2
15	Cleome viscosa	Cappridaceae	Н	Medicinal	3
16	Punica granatum	Punicaceae	S	Medicinal	5
17	Acalytha indica	Euphorbiaceae	S	Medicinal	13

18	Vernonia cineria	Asteraceae	S	Medicinal	10
19	Boerhavia diffusa	Nyctaginaceae	S	Medicinal	5
20	Cassia absus	Fabaceae	H	Medicinal	3
21	Ruellia tuberosa	Acanthaceae	S	Medicinal	25
22	Psidium guajava	Myrtaceae	T	Medicinal	11
23	Couropita	Lecythidiceae	T	Medicinal	1
	guianensis		-	1,100,1011,01	-
24	Syzygium	Myrtaceae	S	Medicinal	2
	aromaticum				
25	Myristica fragrans	Myristicaceae	T	Medicinal	1
	Abrus precatorius	Fabaceae	T	Medicinal	4
26					
27	Aerva lanata	Amaranthaceae	S	Medicinal	8
28	Solanum surattense	Solanceae	S	Medicinal	10
29	Aegle marmelos	Rutaceae	T	Medicinal	6
30	Phyllanthus acidus	Phyllanthaceae	T	Medicinal	3
31	Vitex negundo	Verbinaceae	T	Medicinal	4
32	Aloe vera	Asparagaceae	Н	Medicinal	13
33	Costus speciosus	Costaceae	T	Medicinal	1
34	Agave Americana	Asparagaceae	Н	Medicinal	1
35	Aristolochia indica	Aristalocaceae	S	Medicinal	1
36	Rauwolfia	Apocynaceae	S	Medicinal	1
	serpentina				
37	Cinnamomum verum	Lauraceae	T	Medicinal	1
38	Terminalia bellerica	Combretaceae	T	Medicinal	5
39	Vitex negundo	Lamiaceae	S	Medicinal	1
40	Amorphophallus paeonifolius	Araceae	S	Medicinal	10
41	Leucas aspera	Lamiaceae	S	Medicinal	4
42	Jatropha multifida	Euphorbiaceae	<u> </u>	Medicinal	1
43	Bixa orellana	Bixaceae	S	Medicinal	1
44	Cissus	Vitaceae	S	Medicinal	1
	quadrangularis	Vitaccac	S	Wiediemai	1
45	Hemionitis arifola	Pteridaceae	Н	Medicinal	1
46	Strychnos nux- vomica	Loganiaceae	Н	Medicinal	1
47	Tylophora indica	Apocynaceae	S	Medicinal	1
48	Adhatoda zeylanica	Acanthaceae	S	Medicinal	1
49	Dalbergia latifolia	Fabaceae	T	Medicinal	2
50	Datura fastuosa		S	Medicinal	2
51	Ocimum basilicum	Solanaceae Lamiaceae	<u>з</u> Н	Medicinal	1
52	Bauhinia variegata	Fabaceae	<u>п</u> Т	Medicinal	1
53	Acorus calamus		<u> 1</u> Н	Medicinal	1
		Acoraceae		+	1
54	Aristolochia bracteata	Aristalocaceae	Н	Medicinal	1
	Dracieata				

55	Alpinia galanga	Zinziberaceae	Н	Medicinal	1
56	Murraya koenigii	Rutaceae	T	Medicinal	8
57	Gymnema sylvestre	Apocynaceae	H	Medicinal	3
58	Piper longum	Piperaceae	H	Medicinal	30
59	Plumbago zeylanica	Plumbaginaceae	H	Medicinal	3
60	Argyreia nervosa	Convolvulaceae	H	Medicinal	1
61	Ophiorrhiza mungos	Rubiaceae	H	Medicinal	1
62	Cymbopogon	Poaceae	H	Medicinal	1
	flexuosus	Foaceae			
63	Hemidesmus Indicus	Apocynaceae	Н	Medicinal	1
64	Thespesia populnea	Malvaceae	T	Medicinal	1
65	Datura metel	Solanaceae	S	Medicinal	2
66	Sphaeranthus indicus	Asteraceae	Н	Medicinal	1
67	Asparagus racemosus	Asparagaceae	Н	Medicinal	1
68	Vetiveria zizanioides	Poaceae	Н	Medicinal	1
69	Cinnamomum tamala	Lauraceae	T	Medicinal	1
70	Clitoria ternatea	Fabaceae	Н	Medicinal	6
71	Citrus aurantifolia	Rutaceae	T	Medicinal	1
72	Asystasia gangetica	Acanthaceae	Н	Medicinal	1
73	Citrus medica	Rutaceae	T	Medicinal	1
74	Benincasa hispida	Cucurbitaceae	Н	Medicinal	1
75	Elaeocarpus serratus	Elaeocapaceae	T	Medicinal	1
76	Santalum albumlaceae	Santalaceae	Т	Medicinal	1
77	Centella asiatica	Apiaceae	Н	Medicinal	2
78	Jasminum nitidum	Oleaceae	S	Medicinal	1
79	Terminalia chebula	Combritaceae	T	Medicinal	10
80	Artocarpus heterophyllus	Moraceae	T	Medicinal	2
81	Tinosporia cordifolia	Menispermaceae	Н	Medicinal	1
82	Terminalia catappa	Combritaceae	T	Medicinal	2
83	Sida cordifolia	Malvaceae	S	Medicinal	1
84	Operculina	Convolvulaceae	С	Medicinal	1
	turpethum				
85	Cocos nucifera	Arecaceae	T	Medicinal	21
86	Cassia fistula	Fabaceae	T	Medicinal	7
87	Anthocephalus cadamba	Rubiaceae	T	Medicinal	1
88	Ocimum	Lamiaceae	S	Medicinal	1
00	Ocinium	Lamilaceae	ى ا	Miculcillai	1

	kilimandscharicum				
89	Semecarpus anacardium	Anacardiaceae	T	Medicinal	1
90	Hibiscus rosa – sinenses	Malvaceae	Н	Medicinal	3
91	Catharanthus roseus	Apocynaceae	Н	Medicinal	3
92	Pongamia pinnata	Fabaceae	T	Medicinal	15
93	Delonix regia	Fabaceae	T	Medicinal	4
94	Mimusops elengi	Sapotaceae	T	Medicinal	1
95	Kaempferia galanga	Zinziberaceae	Н	Medicinal	1
96	Tabernaemontana divaricata	Apocynaceae	S	Medicinal	1
97	Alstonia scholaris	Apocynaceae	T	Medicinal	1
98	Andrographis paniculata	Acanthaceae	Н	Medicinal	3
99	Trianthema portulacastrum	Aizoaceae	Н	Medicinal	1
100	Butea monosperma	Fabaceae	T	Medicinal	1
101	Psoralea corylifolia	Fabaceae	Н	Medicinal	1
102	Lawsonia inermis	Latheraceae	S	Medicinal	1
103	Solanum nigrum	Solanaceae	S	Medicinal	1
104	Artemisia vulgaris	Asteraceae	Н	Medicinal	1
105	Mimosa pudica	Memosaceae	Н	Medicinal	1
106	Anacyclus pyrethrum	Asteraceae	Н	Medicinal	1
107	Plectranthus amboinicus	Lamiaceae	Н	Medicinal	3
108	Withania sominifera	Solanaceae	Н	Medicinal	1
109	Basella alba	Basellaceae	Н	Medicinal	1
110	Gloriosa superba	Colchicaceae	Н	Medicinal	1
111	Adenanthera pavonina	Fabaceae	T	Medicinal	1
112	Nyctanthes arbour- tritis	Oleaceae	S	Medicinal	1
113	Sterculia urens	Malvaceae	T	Medicinal	1
114	Abelmoschus moschatus	Malvaceae	S	Medicinal	1
115	Eucalyptus citriodora	Myrtaceae	T	Medicinal	2
116	Anethum graveolens	Apiaceae	Н	Medicinal	1
117	Phyllanthus amarus	Phyllanhtaceae	Н	Medicinal	1
118	Euphorbia neriifolia	Euphorbiaceae	T	Medicinal	1
119	Euphorbia hirta	Euphorbiaceae	Н	Medicinal	5
120	Sansevieria roxburghiana	Asparagaceae	Н	Medicinal	1
121	Coccinea grandis	Cucurbitaceae	Н	Medicinal	2

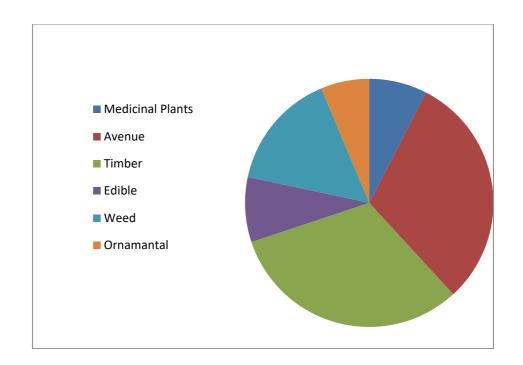
122	Achyranthus aspera	Amaranthaceae	Н	Medicinal	1
123	Eclipta prostrata	Asteraceae	Н	Medicinal	1
124	Crossandra infundibuliformis	Acanthaceae	S	Medicinal	1
125	Annona squamosa	Annonaceae	T	Medicinal	1
126	Indigofera tinctoria	Fabaceae	S	Medicinal	1
127	Mentha piperata	Lamiaceae	Н	Medicinal	1
128	Mucuna pruriens	Fabaceae	S	Medicinal	1
129	Ricinus communis	Euphorbiaceae	S	Medicinal	2
130	Zingiber officinalis	Zinziberaceae	Н	Medicinal	1
131	Ocimum sanctum	Lamiaceae	S	Medicinal	10
132	Curculigo orchiodes	Hypoxidaceae	Н	Medicinal	1
133	Cycus circinalis	Cycadaceae	T	Medicinal	1
134	Nerium odorum	Apocynaceae	S	Medicinal	2
135	Tridax procumbens	Asteraceae	Н	Medicinal	5
136	Tectona grandis	Lamiaceae	T	Medicinal	10
137	Morinda citrifolia	Rubiaceae	S	Medicinal	1
138	Mangifera indica	Anacardiaceae	T	Medicinal	3
138	Rauvolfia tetraphylla	Apocynaceae	S	Medicinal	1
139	Cynodon dactylon	Poaceae	Н	Medicinal	1
140	Tamarindus indica	Fabaceae	T	Medicinal	2
141	Sauropus androgynus	Phyllanthaceae	S	Medicinal	1
142	Bryophyllum pinnatum	Crassulaceae	Н	Medicinal	2
143	Oroxylum indicum	Bignoniaceae	Т	Medicinal	1
144	Ficus racemosa	Moraceae	T	Medicinal	1
145	Chrysalidocarpus lutescens	Aracaceae	T	Medicinal	1
146	Areca catechu	Aracaceae	T	Medicinal	1
147	Phyllanthus reticulatus	Phyllanthaceae	S	Medicinal	1
148	Stevia rebaudiana	Asteraceae	S	Medicinal	1
149	Ficus benghalensis	Moraceae	T	Medicinal	1
150	Abutilon indicum	Malvaceae	S	Medicinal	2
151	Chrysanthemum	Asteraceae	Н	Medicinal	1
152	Tagetus patula	Asteraceae	S	Medicinal	2

G. Typh



PRINCIPAL

S.V.K.P & Dr. K.S.RAJU ARTS & SCIENCE COLLEGE (A)
Accredited by NAAC with 'A' Grade
PENUGONDA - 534 320, W.G.Dt. A.P.











# Certificate

# HÝM International Certifications Pvt. Ltd.

Certified that the Environmental Management System of SRI VASAVI KANYAKA PARAMESWARI AND

## DR.KALIDINDI SURYANARAYANA RAJU ARTS AND SCIENCE COLLEGE

Penugonda, West Godavari District, Andhra Pradesh, India has been assessed and found to be in accordance with the requirements of the environmental standards

ISO 14001 : 2015

for the following scope of certification

# IMPLEMENTATION OF GREENERY AND ENVIRONMENTAL PROMOTION ACTIVITIES

Further information about the scope of this certificate and applicability of ISO 14001: 2015 requirements may be obtained by consulting the organization.

Issue Date

Renewal Date :

22/12/2022

21/12/2025

1st Surveillance 21/12/2023

2nd Surveillance 21/12/2024











Authorised Signature

Certificate No : E91864140200

NOTE: This Certificate is Valid From 22/12/2022 to 21/12/2023

This is an accredited certificate authorized for issue by Accreditation Service for Certifying Bodies [Europe] Limited who have assessed M/s.HYM International Certifications Pvt. Ltd. against defined criteria and in cognisance of ISO 17021:2015 "Conformity Assessment - Requirements for bodies providing audit and Certification of management Systems"

www.hymcertifications.com on for checking the validation of the Certification

Regd. Office: Plot No. 265/C, Addagutta Society, Opp. JNTU, Kukatpally, Hyderabad - 500 072, Telangana State, India. E-mail: siva@hymcertifications.com, Website: www.hymcertifications.com