

GREEN AUDIT REPORT

C.S.T.S GOVT. KALASALA

DEPARTMENT OF BOTANY & HORTICULTURE

JANGAREDDIGUDEM



MEMBERS OF GREEN AUDIT COMMITTEE

1. Dr. N.PRASAD BABU Principal & Chairman
2. Sri B.SRINIVASA RAO Vice Principal
3. Dr M.MADHU Co-Ordinator
4. T.JHANSI RANI Member
5. CH. VENKATA LAKSHMI Member
6. B. SONIA Member
- 7 P. SREEJA Member
- 8.B.DILLESWARI Member
9. M.DURGA DEVI Member

Contents

1	Introduction
2	Activities
2.1	Plantation of diversified species
2.2	Vegetative propagation
2.3	Uses of Medicinal plants
2.4	Identification of Plant species
3	General steps
4	Procedure
5	Report
6	Equipment
7	Observations
8	List of audit plants
9	Some Plant photographs

GREEN AUDIT REPORT

1.INTRODUCTION:

The term “Green” means Eco-friendly or not damaging the Environment. This can acronymically is called as “Global Readiness in Ensuring Ecological Neutrality” (GREEN). Green accounting can be defined as systematic identification, quantification, recording, reporting and analysis of components of ecological diversity and expressing

the same in financial or social terms. “Green Auditing”, an umbrella term, is known by another name “Environmental Auditing”. There is a provision of green audit in college campus. As per the suggestions made by IQAC, Botany Department taken the responsibility to do Green Audit with cooperation of Principal. A report on green audit has been prepared by the Department of Botany, C.S.T.S GOVERNEMENT KALASALA JANGAREDDIGUDEM. Total area of the college campus is of which 30 percent is covered by herbs, shrubs and trees, including valuable medicinal flora. The plants have been systematically identified by the Dept. of Botany. There are more than 85 plant species were audited. Extra efforts have been taken by the college to create environment consciousness amongst students. One major step in this regard is the extensive plantation program organized by NSS, U.G students of Botany Department. Plantation is encouraged by the Principal and all Departments Faculty members to increase greenery and reduce carbon dioxide emission effects. Renovation of the garden at the entrance was done. Existing gardens are also maintained by the Dept. of Botany of this college. Extension programs also organized to create environment awareness and conservation of Biodiversity amongst the students and public. In this regard extension program was organized.

2. Activities organized to create greenery and its conservation at college campus is as follows:

1. Plantation of diversified species
2. Vegetative propagation
3. Uses of Medicinal plants
4. Identification of Plant species

2.1 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 Ornamental,, Medicinal plants and beautiful trees were 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 students under the guidance of Department of Botany and NSS. Moreover, every year we try to plant new Plants.

2.2 Vegetative propagation:

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

2.3 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.

2.4 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.

3. General Steps:

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

4. Procedure followed:

The students were divided into three 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.

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.

5.Report :

Identification of Plant species and Bio-diversity in the college campus, based on our data collected, there are 102 plants in the college campus. In this 33 are trees, 21 are shrubs, 48 are herbs 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:

1. Vehicles
2. Refrigerators
3. Air conditioners

4. RO water Plants

5. Mobiles etc.

1. Vehicles on the days of data collection, there were 5 cars, 25 bikes and 10 scooties in our campus, which in turn proves us that these vehicles may contribute to high carbon-dioxide emission. There are 1 refrigerators, 1 air conditioners in our campus. The students, teaching and non-teaching staff and the visitors also contribute to carbon-dioxide emission.

2. 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 27 taps, 1 RO water Plant.

6. In addition to these equipment, our college also has

- 10 exhaust fans
- A table fan
- 1 Telephones
- LCD Projectors
- Hand mikes
- A bell

5. 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.

Library: The most generated waste is paper waste. It is taken for recycling.

Office: Paper waste generated are recycled and reused.

Garden: Plastic and paper waste is comparatively less. Fallen leaves are collected and used in vermi-compost unit

Seminar hall: The wastes are collected after each programed and dumbbed it.

Bathroom: The wastes are collected and burned in an incinerator behind the convent.

Classrooms: Paper wastes are collected in the waste basket and recycled.

. **Laboratory:** The broken glass wastes and the useless instruments are disposed for recycling after thorough washing.

College Premises: Plastic waste generated is usually less. But paper waste is generated in a larger amount.

7.Observations:

1. 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.
2. Fortunately, the students, Teaching and Non-Teaching staff of the college is available to clean the college campus.

List of the Audited Plants

<u>S.NO</u>	<i>Scientific Name of Plant</i>	Herb/Shrub/Tree	Local Name	Family	Uses
1	<i>Acalypha indica</i>	Herb	Muripindi	Euphorbiaceae	Anti Venomous & Anti Diabetic properties
2	<i>Achyranthus aspera</i>	Herb	Uttereni	Amaranthaceae	To treat cough,bronchitis,Malaria ,Fever
3	<i>Amaranthus viridis</i>	Herb	Slender amaranth	Amaranthaceae	To treat fever, pain, asthama
4	<i>Agave americana</i>	Herb	American aloe	Aspargaceae	To treat Burns,Injuries and Skin irritation
5	<i>Ageratum conyzoides</i>	Herb	Goat weed	Asteraceae	To treat pneumonia ,to cure wounds & burns
6	<i>Annona squamosa</i>	shrub	Custard apple	Annonaceae	Used to make medicine
7	<i>Aloevera barbedence</i>	Herb	Kalabanda	Liliaceae	Used to treat skin diseases
8	<i>Andrographis paniculata</i> (Burm.f.) NEAS	Herb	Bitter weed	Acanthaceae	To treat cancer,Ulcers,Leprosy
9	<i>Asystasia gangetica</i>	Herb	Coromandel	Acanthaceae	To treat hypertension,asthama,diabetis
10	<i>Azadiricta indica</i>	Herb	Neem	Meliaceae	Natural medicine and pesticides
11	<i>Borassue flabellifera</i>	Herb	Toddy palm	Aracaceae	Mats, baskets,fans
12	<i>Carica papaya</i>	Tree	Papaya	Caricaceae	Control blood sugar
13	<i>Cassia mimosoides</i>	Tree	Nela ponna	Caesalpinaceae	To treat diarrhea,wounds
14	<i>Capparis spinosa</i>	Herb	Flinders rose	Capparaceae	treatment of gout, arthritis
15	<i>Chloris barbata sw.</i>	Shurb	Purple top chloris	Poaceae	skin disorders
16	<i>Chlorophytum comosum</i>	Herb	Spider plant	Asparagus	weakness, arthritis
17	<i>Cleome viscosa</i>	Herb	Spiderflower	Cappparidaceae	traditionalmediceine,indian mediciene
18	<i>Clitoria ternata</i>	Shurb	Asianpigeon wings,bluebellvine	Fabaceae	memoryenhancer ,nootropic
19	<i>Catharanthus roseus</i>	Tree	Vinca rosea	Apocynaceae	Treatment of diabeties
20	<i>Croton banplandianum</i>	Herb	Bontulshi	Euphorbiaceae	treat liver disorders,skin diseases
21	<i>Cyanthiluum cinereum (l)</i>	Herb	Little iron weed	Asteraceae	asthama,cancer,choler,night blindness
22	<i>Cycas revoluta thumb</i>	Herb	Sagopalm	Cycad	tonic high blood pressure,headaches,bonepain

23	<i>Cynodon dactylon (l) pers</i>	Herb	Bermudagrass	Poaceae	colant,laxative,brain and heart tonic
24	<i>Casuarina equisetifolia</i>	Tree	She oak	Casuarinaceae	Diarrhea,stomach ache
25	<i>Cassia occidentalis</i>	Shrub	Senna	Caesalpinaceae	Anti fungal and anti bacterial
26	<i>Datura stramonium</i>	Shrub	Thorn apple	Solanaceae	Toothache, fever from inflammation
27	<i>Dieffenbachia seguine</i>	Shrub	Cane	Araceae	anti dote, snake bites, rheumatism
28	<i>Duranta erecta l.</i>	Tree	Golden dew	Verbenaceae	mosquitoacidil cyto toxic, anti viral, anti fungal
29	<i>Drymaria cordata</i>	Herb	Tropical chick weed	Caryophyllaceae	Treating respiratory ailments and bronchitis
30	<i>Elaeis guineensis</i>	Tree	Oil palm	Arecaceae	headaches, pains, rheumatism
31	<i>Emilia fosbergii nicolson</i>	Herb	Florida tasselflower	Asteraceae	tree unspecified medicinal disorders
32	<i>Euphorbia hirta</i>	Herb	Asthma weed	Asteraceae	Treatment of bleeding hemorrhoids
33	<i>Euphorbia pulcherrima</i>	Herb	Mexican flame leaf	Euphorbiaceae	Used as a medicinal plant
34	<i>Erigeron bonariensis</i>	Tree	Flax leaf fleabane	Asteraceae	treatment of bleeding hemorrhoids
35	<i>Euphorbia prostrata aiton</i>	Shrub	Prostrate spurge	Euphorbiaceae	tree, improve bio markers for inflammation but not glucose
36	<i>Euphorbia tithymaloides l.</i>	Shrub	Seashell devil's backbone	Euphorbiaceae	ringworm ,skin cancer,toothache,insect stings
37	<i>Euterpe oleracea mart</i>	Tree	Acai palm	Arecaceae	anti oxidant, diabetes,hypertension,inflammatory
38	<i>Ficus hispida</i>	Tree	Hairy fig	Moraceae	purgation and emesis to remove excess pitta dosha
39	<i>Ficus religiosa</i>	Tree	Peepal tree	Moraceae	asthma diarrhea,diabetes,sexual disorders
40	<i>Ficus species</i>	Tree	Fig trees	Mulberry family	treat various ailments such as gastric problems,cancer
41	<i>Gardenia jasminoides</i>	Herbs	Cape jasmines	Rubiaceae	disorders,diabetes,and other conditions
42	<i>Glechoma hederacea</i>	Herb	Ground ivy	Lamiaceae	treat inflammations of the eyes
43	<i>Gomphrena celosioides mart</i>	Shrub	Bachelor's button	Amaranthaceae	Skin infections,respiratory problems,ect...

44	<i>Gomphrena celosisioides mart</i>	Shrub	Prostrate Globe-amaranth	Amaranthaceae	Skin infections, respiratory problems, ect...
45	<i>Hibiscus rosa</i>	Tree	hibiscus	Malvaceae	shoe polish ,women black hair dry
46	<i>Hyptis suaveolens</i>	Herb	Mesosphaerum suaveolens	Lamiaceae	gastric ulcer, infections, and inflammations
47	<i>Hemidesmus indicus</i>	herb	Sarasaparilla	Apocyanaceae	Used in traditional medicine
48	<i>Indigofera tinctoria</i>	Herb	True indigo	Fabaceae	fever, liver, grey hairs, spleen disorders ETC....
49	<i>Ixora chinensis lan</i>	Herb	Viru	Rubiaceae	Treat dysentery and tuberculosis
50	<i>Jatropha gossypifolia</i>	Shrub	Bellyache bush	Euphorbiaceae	Anti inflammatory, insecticidal properties
51	<i>Kalanchoe ceratophylla</i>	Shrub	Chrismastree plant	Crassulaceae	cure injuries, pain, fever
52	<i>Kalmia latifolia</i>	Shrub	Mountain laurel	Ericaceae	joints pain
53	<i>Luffa acutangula</i>	Herb	Ridged gourd	Cucurbitaceae	Treating and preventing colds
54	<i>Lawsonia inermis</i>	Tree	Henna	Lythraceae	Used as dye for skin and hair
55	<i>Ligustrum japonicum Thunb</i>	Shrub	Ching kundo	Oleaceae	digestive problems
56	<i>Liriodendron latifolium L.</i>	Herb	Roast beef plant	Lauraceae	antispasmodic and cathartic
57	<i>Melothria pendula</i>	Shrub	Creeping cucumber	Cucurbitaceae	Sores and gastric treatment
58	<i>Manihot zapota</i>	Tree	Sapodilla	Sapotaceae	To treat cold and cough
59	<i>Moringa olifera</i>	Tree	Drumstick tree	Moringaceae	increase sex drive, prevent pregnancy
60	<i>Momordica charantia</i>	Herb	Bitter gourd	Cucurbitaceae	used in folk medicine for treatment of diabetes mellitus
61	<i>Morinda tinctoria</i>	Shrub	Indian mulberry	Rubiaceae	wound healing
62	<i>Mangifera indica</i>	Tree	Mango	Anacardiaceae	To treat asthma and hypertension
63	<i>Murraya koenigii</i>	Herb	Curry leaf	Rutaceae	treating piles, inflammation edema
64	<i>Nerium oleander</i>	Herb	Rose bay	Apocynaceae	To treat ringworm, herpes
65	<i>Nyctanthes arbor-tristis</i>	Tree	Night blooming jasmine	Oleaceae	Piles, intestinal worms

66	<i>Ocimum tenuifbrum</i>	Herb	Tulasi	Lamiaceae	used in ayurveda,tradition of hinduism
67	<i>Phaseolus vulgaris</i>	Herb	Snap bean	Fabaceae	Delaying the digestion of complex cabohydrate
68	<i>Prunus dulcis</i>	Tree	Almond	Rosaceae	Lower blood sugar levels
69	<i>Phyllanthus emblica</i>	Tree	Indian gooseberry	Phyllanthaceae	To treat jaundice and inflammation
70	<i>Psidium guajava</i>	Tree	Guava	Myrtaceae	To treat diarrhea
71	<i>Passiflora foetida</i>	Shurb	Love in a mist	Passifloraceae	help with stress,sleep
72	<i>Pithacalobium dulci</i>	Tree	Cheema chintha	Mimosaceae	To treat diabetes
73	<i>Peltophorum pterocarpum</i>	Herb	Yellow flame.	Fabaceae	required petroleum
74	<i>Phoenix reclinata</i>	Tree	Date palm	Areceae	urinary infections
75	<i>Phoenix theophrasti greuter</i>	Herb	Date palm	Arecacea bercht	food for oil
76	<i>Phyllanthus amarus schumach</i>	Herb	Child pick A-back	Phyllanthaceae	treat ulcer
77	<i>Phyllanthus tenellus roxb</i>	Herb	Mascarein island leave	Phyllanthaceae	liver disease
78	<i>Phyllanthus urinaria</i>	Shurb	Chamber bitter	Phyllanthaceae	jundice,daibets
79	<i>Plectranthu anboinicus</i>	Herb	Indian boarge	Mexian mint	skin infection, digestive
80	<i>Plumeria rubra</i>	Tree	Fraunga pani	Apocynaceae	anti-fertility -anti inflimatory
81	<i>Polyscias fruticosa (l) .harms</i>	Tree	Umbrella tree	Ariliaceae	anti-toxin, anti-bacterial onitment
82	<i>Pongamia pinnata</i>	Tree	Poungam	Fabaeceae	treatment of fumors piles and skin disease
83	<i>Psodium gujava(l)</i>	Tree	Jama	Myrtaceae	diabetes, fever
84	<i>Rhapis excelsa</i>	Tree	Bamboo palm	Arecaceae	removing air bone toxin
85	<i>Ruellia simplex</i>	Herb	Desart penuta	Acanthaceae	treatment of flu asthma
86	<i>Ruellia tuberosa (l) - medicinal plant</i>	Herb	Meadow weed	Acanthaceae	anti-pyretic bladder diseases
87	<i>Solanum nigrum</i>	Tree	Black nightshade	Solanaceae	To treat stomach irritation

88	<i>Sida acuta burm. F</i>	Herb	Wire weed	Mallows	sore mouth,cough,wheezing,commen cold etc...
89	<i>Syzygium cumini</i>	Tree	Java plum	Myrtaceae	To treat kidney problems
90	<i>Solanum paniculatum</i>	Tree	Jurubebas	Nightshade	treatment of gastritis,bronchitis and fever
91	<i>Solanum torum</i>	Herb	Turkey berry	Solanaceae	fever,wound,hyper tension etc...
92	<i>Sterculia foetida</i>	Tree	Java olive tree	Malvaceae	stamina booster ,cure diarrhea,anti cancer
93	<i>Syndrella nodiflora</i>	Herb	Cindrella weed	Asteraceae	inflammatory diseses,asthama,liver problems
94	<i>Sida cordifolia</i>	Shrub	Flannel weed	Malvaceae	To treat cold and headache
95	<i>Tridax procumbens</i>	Herb	coatbuttons	Asteraceae	To treat diarrhea,liver diseases
96	<i>Tectona grandis</i>	Tree	Teak	Lamaiceae	laxative,cooling,wood is acrid,dysentery
97	<i>Tephrosia purpuria</i>	Herbs	Vempali	Legumes	liver ,spleen ,heart and blood
98	<i>Terminalia catappa</i>	Tree	Indian almond	Combretaceae	treat of scabies,leprosy,wounds and other skin dieseses
99	<i>Ziziphus jujube</i>	Tree	Indian jujube	Rhamnaceae	To treat heart burn,diuretic and nausea
100	<i>Vicia faba</i>	Herb	Broad bean	Fabaceae	Used to make soups,stews, pastes
101	<i>Vinca alba</i>	Shurb	Periwinkle	Apocynaceae	Used to treat cancer
102	<i>Withania somnifera</i>	Shrub	Ashwagandha	Solanceae	To treat various CNS disorders





