

SRI UMA MAHESHWARI GOVERNMENT DEGREE COLLEGE: KONDANAGULA (Affiliated to PALAMURU UNIVERSITY) NAGARKURNOOL DISTRICT - 509401 (TELANGANA STATE) GREEN AUDIT-2020-2021



## SUBMITTED TO

# Commissioner of collegiate Education Telangana

## **College Profile**

Name of the College: **SRI UMAMAHESHWARI GOVERNMENT DEGREE COLLEGE** 

Address:	Kondanagula, Balmoor Mandal, Nagarkurnool District
Contact Info: Campus Area	9703835525, 9490958834 10 Acres
Built-up Area	26781 Sq. Ft

Is the building has ventilators for natural air flow in all rooms: Yes/No

#### The student and faculty strength of the college:

Strength	Male	Female	Total
No of students	327	121	448
No of Teaching Staff	12	3	15
No of Non-Teaching staff	5	2	7

S.No	Name of the College	Combination	Medium	l Year	ll Year	III Year
1	SUM GDC KONDANAGAULA	B.A. CBCS	Telugu	69	56	51
2	SUM GDC KONDANAGAULA	B.A. CBCS	English	25	16	10
3	SUM GDC KONDANAGAULA	B.COM(COMPUTER APPLICATION)	ENGLISH	27	5	5
4	SUM GDC KONDANAGAULA	B.COM(GENERAL)	TELUGU	0	0	6
5	SUM GDC KONDANAGAULA	B.Com.(Computer Applications)	Telugu	0	7	0
6	SUM GDC KONDANAGAULA	B.Sc. Life Science(Botany- Chemistry-Zoology)	Telugu	0	16	16
7	SUM GDC KONDANAGAULA	B.Sc. Life Science(Botany/Dairy- Chemistry-Zoology)	English	60	23	8
8	SUM GDC KONDANAGAULA	B.Sc. Physical Science	English	21	13	14
	TOTAL				136	110

## **Physical Structure**

The available land of the college: 10 acres and 00 Guntas. The built-up area of the college:26781 Sq.Ft.

No. of Class Rooms	12
No. of Laboratories	10
No. of Conference halls	01
Library Halls	02
Auditorium	NA
Canteen	01
Any other (please specify)	GYM – 01, Mana Tv - 01

Objectives :	<ul> <li>Imparting quality higher education.</li> <li>to bridge the knowledge gap between rural and urban students,</li> <li>To equip the students with employability skills like communication skills and computer skills.</li> <li>For creating awareness in the society and students about the environmental problems and protecting the natural resources.</li> <li>To impart of the value orientated education.</li> <li>Vision, Mission, objectives of the institution are communicated to the stakeholders through college website, notice board, local print and electronic media.</li> </ul>
Prepared by:	Dr.L.Dupsingh (coordinator Green Audit)
Approved by:	Dr.CH.Ramachandram (Principal)
Remarks :	NA

**Background of the college:** S.U.M. Govt Degree College, Kondanagula, Nagarkurnool District has remained a high standing beacon light in the district of Nagarkurnool since 1989 illuminating thousands of rural masses. Knowledge becomes the source of one's enlightenment at the individual level and turns out to be a guiding spirit at the social level. S.U.M. Govt. Degree College, Kondanagula, was established in 1989 consequence to taken over of private Un aided Degree College i.e., Sri Umamaheshwari Degree college in a remote village Kondanagula in Mahabubnagar District of Telangana state by the then Government of Andhra Pradesh. Taken over by Govt was completed due to efforts made by the then college correspondent Late Sri. Venepalli Bhagavantha Rao and Especially by the efforts made by the Late Sri. P. Mahendranath AP state Revenue Minister who hails from this area. Kondanagula is predominantly a tribal area. This college caters to the higher education needs of this students of this area specially the students from ST, SC, OBC communities.

## **General Objectives**

- Environmental risk assessment including compliance to regulations, soil, Water, solid and E-wastes, emissions, hazardous products & noise pollution.
- > Waste minimization and environmental pollution control plans.
- > The optimal utilization of energy, water and other natural resources.
- > Recycling programs and product life cycle considerations.
- > Emergency response plans and procedures.

**Internal Audit Team Structure: (7+2=9):** It comprises Principal Dr.CH.Ramachandram as Chairman, IQAC coordinator Dr.A.Srinivasalu as Vice-Chairman, Dr.N.LaxmiNarasimha Rao Principal of the GDC Amarabad as special invitee, Dr.L.Dupsingh coordinator from faculty of Botany and as a members B.John babu,R.Venkataiah & A.Ashok Kumar & DFO Achampet Forest Department

## AUDITING FOR WATER MANAGEMENT

- 1. List out uses of water in your college.
  - Drinking, lab, Toilets and Gardening
- 2. What are the sources of water in your college?
  - Bore, Overhead tank & storage tank
- 3. How many wells are there in your college?

1 bore well

4. No. of motors used for pumping water from each well?

1 moter

5. What is the total horse power of each motor?

1hp

6. What is the depth of each well?

1 well 270 feets

7. What is the present depth of water in each well?

150 feets

8. How does your college store water?

Overhead tank-3 & storage tank

- Quantity of water stored in your overhead water tank? (In liters)
   6000 liters(2000+2000+2000&10000)liters of storage tank
- 10. Quantity of water pumped every day? (In liters)

2000 liters

11. If there is water wastage, specify why. 5

250 liters(labs , toilets & plants)

12. How can the wastage be prevented / stopped?

By stopping Leakage

13. Locate the point of entry of water and point of exit of waste water in your College.

Middle of the college in play ground

14. Where does waste water come from?

Laboratories, washbasins and Toilets

15. Where does the waste water go?

Sent in to the soak pit

provided

16. What are the uses of waste water in your college?

Increases the level of ground water

17. What happens to the water used in your labs? Whether it gets mixed with ground water?

Increases the level of ground water

18. Is there any treatment for the lab water?

NO

19. Whether green chemistry methods are practiced in your labs?

Minimum usage of water cleaning of glass apparatus in the labs.

Drying of cleaned glass apparatus for further use.

20. Write down four ways that could reduce the amount of water used in your college.

- 1. Check your toilet for leaks.
- 2. Check faucets and pipes for leaks.
- 3. Keep a bottle of drinking water in the refrigerator.
- 4. Water your lawn only when it needs it.
- 21. Record water use from the college water meter for six months.

NO

22. Bimonthly water charges paid to water connections if any

#### NO

23. No. of water coolers. Amount of water used per day? (in liters)

NO

24. No. of water taps. Amount of water used per day?

32 taps.900 Liters per day

25. No. of bath rooms in staff rooms, common, hostels. Amount of water used per day?

- 8 bath rooms, 500 liters.
- 26. No. of toilet, urinals. Amount of water used per day?
  - 8 toilets, 10 urinals, 250 liters.

27. No. of water taps in the canteen. Amount of water used per day?

no taps in canteen,10 liters.

28. Amount of water used per day for garden use.

200 liters for garden use.

29. No. of water taps in laboratories. Amount of water used per day in each lab?

10 taps in laboratories,100 liters

30. Total use of water in each hostel? -NA

31. At the end of the period, compile a table to show how many liters of water have been used in the college for each purpose

Purpose of usage of water	Water used per day in liters	Total Water used in liters
No. of water taps-32	900	900
No. of bath rooms-8	250	250
No. of toilet-8, urinals- 10	250	250
No. of water taps in the canteen-2	100	100
water used per day for garden	200	200
water taps in	10	10
laboratories-10	10	300

32. Is there any water used for agricultural purposes?

NO

33. Does your college harvest rain water?

YES

34. If yes, how many rain water harvesting units are there? (Approx. amount)

2 Rain Water harvesting units

35. How many of the taps are leaky? Amount of water lost per day?

NO

- 36. Are there signs reminding people to turn off the water? Yes / No YES
- 37. Is there any waterless toilets?

NO

38. How many water fountains are there?

NO

39. How many water fountains are leaky?

NA

40. Is drip irrigation used to water plants outside? YES/NO

NO

41. How often is the garden watered?

Alternate days

42. Quantity of water used to watering the ground?

200 liters

43. Quantity of water used for bus cleaning? (Liters per day)

NO

- 44. Amount of water for other uses? (Items not mentioned above) NA
- 45. Area of the college land without tree/building canopy.

3-acreas

46. Is there any water management plan in the college?

YES

47. Are there any water saving techniques followed in your college? What are they?

- 1. Use a dishwasher (if you have one) instead of hand washing to use less running water.
- 2. Use "leftover" water from a drinking glass or from washing fruit and veggies to water plants.
- 3. Water plants in the early morning/late evening to decrease the amount of evaporation.
- 48. Please share Some IDEA for how your college could save more water.
  - 1. Repair water leaks.
  - 2. Set up a water action plan.
  - 3. Go low-flow.
  - 4. Focus on toilets.

#### AUDITING FOR ENERGY MANAGEMENT

1. List ways that you use energy in your college. (Electricity, electric stove, kettle, microwave, LPG, firewood, Petrol, diesel and others).

Electricity

2. Electricity bill amount for the last year

,36,000-00

3. Amount paid for LPG cylinders for last one year

4800-00

4. Weight of firewood used per month and amount of money spent? Also mention the amount spent for petrol/diesel/ others for generators?

NA

5. Are there any energy saving methods employed in your college? If yes, please specify. If no, suggest some.

NO

6. How much money does your college spend on energy such as electricity, gas, firewood, etc. in a month?

142000-00

7. How many CFL bulbs has your college installed? Mention use (Hours used/day for how many days in a month)

50 CFL Bulps and 24 days

8. Energy used by each bulb per month? (For example- 60 watt bulb x 4hours x number of bulbs = Kwh).

50\*6\*24=7200 kWH

9. How many LED bulbs are used in your college? Mention the use (Hours used/day for how many days in a month)

1 day= 40wattsx3hoursx76bulbs=9.12 kwh

1 month (23 days) = 209.76 kwh.

10. Energy used by each bulb per month? (kWh).

1 bulb = 0.12 kwh

11. How many incandescent (tungsten) bulbs have your college installed? Mentions use (Hours used/day for how many days in a month)

1 day=60wattsx5hrsx4 bulbs =1.2 kwh

 $1 \text{ month} = 1.2 \times 20 \text{ days} = 24 \text{kwh}$ 

12. Energy used by each bulb per month? (kWh).

1 bulb = 6 kwh

13. How many fans are installed in your college? Mention use (Hours used/day for how many days in a month)

1 day = 75 watts x 6 hours x 72 fans = 34.2 kwh

1 month = 34.2 x 23 days = 786.6 kwh

14. Energy used by each fan per month? (kWh).

1 fan = 10.925 kwh

15. How many air conditioners are installed in your college? Mention use (Hours used/day, for how many days in a month)

1 day = 3500 watts x 2 hours x 2 ACs = 14 kwh

 $1 \text{ month} = 14 \text{ kwh} \times 20 \text{ days} = 280 \text{ kwh}$ 

16. Energy used by each air conditioner per month? (kWh).

1 Ac = 140 kwh

17. How many electrical equipment including weighing balance are installed your college? Mention the use (Hours used/day for how many days in a month)

NA

18. Energy used by each electrical equipment per month? (kWh).

NA

19. How many computers are there in your college? Mention the use (Hours used/day for how many days in a month)

1 Day = 100 watts x 4 hours x 60 = 32 kwh

 $1 \text{ month} = 32 \text{kwh} \times 23 = 736 \text{ kwh}$ 

20. Energy used by each computer per month? (kWh).

1 computer = 9.2 kwh

21. How many photocopiers are installed by your college? Mention use (Hours used/day for how many days in a month).

NA

22. How many cooling apparatus are in installed in your college? Mention use (Hours used/day for how many days in a month)

1 day = 100 watts x 4 hours x 1 cooler = 0.40 kwh

 $1 \text{ month} = 0.40 \text{ kwh} \times 23 \text{ days} = 9.2 \text{ kwh}$ 

23. Energy used by each cooling apparatus per month? (kWh) Mention use (Hours used/day for how many days in a month)

 $1 \operatorname{cooler} = 9.2 \operatorname{kwh}$ 

24. How many inverters your college installed? Mentions use (Hours used/day for how many days in a month)

1 day

25. Energy used by each inverter per month? (kwh).

26. How many electrical equipment are used in different labs of your college? Mention the use (Hours used/day for how many days in a month)

10 Elcetrical equipment 4 HOURS USED /24 DAYS

27. Energy used by each equipment per month? (kWh)

100 kwh

28. How many heaters are used in the canteen of your college? Mention the use (Hours used/day for how many days in a month)

NA

29. Energy used by each heater per month? (kWh)

NA

30. No of street lights in your college?

Street Lights = 08

31. Energy used by each street light per month? (kWh)

1 month = 40 watts x 8 lights x 30 days = 96 kwh

32. No of TV in your college and hostels?

01

33. Energy used by each TV per month? (kWh)

1 month = 1 tv x 70 watts x 12 days = 1.68 kwh

34. Any other item that uses energy (Please write the energy used per month) Mention the use (Hours used/day for how many days in a month)

NA

35. Are any alternative energy sources/nonconventional energy sources employed / installed in your college? (Photovoltaic cells for solar energy, windmill, energy efficient stoves, etc..) Specify.

NA

36. Do you run "switch off" drills at college?

NA

37. Are your computers and other equipment put on power-saving mode?

YES

38. Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby mode most of the time? If yes, how many hours?

YES, computer and printers = 5 hours running mode

39. What are the energy conservation methods adapted by your college?

- Turning off lights and fans.
- Reduce water usage.

40. How many boards displayed for saving energy awareness?

02

41. How much ash is collected after burning fire wood per day in the canteen?

NA

42. Write a note on the methods/practices/adaptations by which you can reduce the energy use in your college campus in future.

• We are planning To maintain solar system.

Calculation of energy for electrical appliances Appliance Power used in (watt) Usage per day (hours) Number of appliances Average kWh per day (Watt X hours X Number X 1000) Average kWh per month (Watt X hours X Number X 1000 x 30) Incandescent bulb 60 watt CFL 18 W Microwave 1000W Stove 3000W Kettle 2500W

#### AUDITING FOR WASTE MANAGEMENT

What is the total strength of students, teachers and Non-teaching staff in your College?

448 students , 15 teaching and 7 non teaching

No. of Students; No. of Teachers; No. Non-teaching staff; Gents - Ladies Total

448 students no. of teachers 15 including pg ,7 non teaching-18 gents

-4 ladiesTotal=26

Which of the following are available in your College?

Give area occupied, Garden area and Garbage dump (number)

Yes available

Playground area, Laboratory, Kitchen, Canteen, Toilets (number) Car/scooter shed area

Playground 3 acreas

Lab-4

Kitchen-no

Canteen -1

Toilets-4

Number of class rooms, Office rooms and others (specify)

12 class rooms 3 office rooms

Which of the following are found near your college? Mark the level of disturbance it creates for the college in a scale of 1 to 9.

Municipal dump yard -no

Garbage heap -yes

Public convenience Sewer line no

NoStagnant water -no

Open drainage Industry – (Mention the type) -no

Bus / Railway station Market / shopping complex / public halls -no

#### WASTE

Does your college generate any waste? If so, what are they?

Waste water .they are laboratory waste water

How much quantity?

250 liters

Number or weight E-waste Hazardous waste (toxic)

no

Solid waste -no

Dry leaves -yes

Canteen waste -

Yes

Liquid waste -yes

Glass -no

Unused equipment

yes

Medical waste if any

no

Napkins Others (Specify) -yes

Is there any waste treatment system in the college?

no

Is there any treatment for toilet/urinal/sanitary napkin waste?

no

1 What is the approximate quantity of waste generated per day? (in Kilograms) Office Laboratories Canteen/kitchen

1 kilograms

2 Why waste is a problem?

na

3 Whether waste is polluting ground/surface water? How?

no

4 Whether waste is polluting the air of the college? How?

no

5 How is the waste generated in the college managed?

Methods 1 Composting 2 Recycling 3 Reusing 4 Others (specify)

composting

6 How many separate boxes do you think you would need to put into a classroom to start a waste segregation and recycling campaign?

10 boxes

What should be the use for each box? (Develop a Colour code with reasons)

Dry and wet

7 Do you use recycled paper in College?

no

8 Is there any waste wealth program practiced in the college?

yes

Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 - 10 kg. > 10 kg.

Bio degradable 1kg

Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 - 10 kg. > 10 kg.

Bio degradable 2kg

Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 - 10 kg. > 10 kg.

Bio degradable 1kg

9 How would you spread the message of recycling to others in the community? Have you taken any initiatives? If yes, please specify.

no

10 Can you achieve zero garbage in your college? (Reduce, Recycle, Reuse, Refuse) If yes, how?

no

#### AUDITING FOR GREEN CAMPUS MANAGEMENT

- 1. Is there a garden in your college? Area? No
- Do students spend time in the garden? No
- 3. List the plants in the garden, with approx. numbers of each species. Nil
- 4. Suggest plants for your campus. (Trees, vegetables, herbs, etc.)

S. No.	Scientific Name of Plant	Local Name	Family	Habit / T/S/H /C	Uses	Nos
1.	Mangifera indica	Mango	Anacardiaceae	Т	Timber	03
2	Eucalyptus indica	Jamaoil	Myrtaceae	Т	Timber	148

3	Citrus lemon	Lemon	Rutaceae	Т	Edible	5
4	Delonix regia	Turai chettu	Caesalpiniaceae	Т	Social forestr y	06
5	Cocus nucifera	Coconut	Poaceae	Т	Edible	02
6	Achras sapota	Sapota	Sapotaceae	Т	Edible	01
7	Artocarpus heterophyllus	Jackfruit	Moraceae	Т	Edible	02
8	Partheniu m hysteropho rus	Vayyaribhama	Asteraceae	S	Weed	321 5
9	Cucumis sativum	Dosakaya	Cucurbitaceae	С	Edible	08
10	Crotan bonplandi anum	Galivaana Mokka	Euphorbiaceae	Н	weed	32
11	Crossandr a infundibuli formis	Kanakambaram	Acanthaceae	S	Ornamental	06
12	Ixora indica	Guthi puvvulu	Rubiaceae	Н	Ornamental	02
13	Tradescant ia spathacea	Reodicolour	Commelinaceae	Н	Ornamental	02
14	Acalypha Poland	Muripinda	Euphorbiaceae	Н	Ornamental	02
15	Tabernae montana	Nandivardhanam	Apocynaceae	Н	Ornamental	02
16	Cycas revoluta	Sago palm	Cycadaceae	S	Ornamental	02
17	Dolichus lab lab	Beans	Fabaceae	C	Edible	02
18	Saraca asoca	Ashoca	Caesalpiniaceae	Т	Ornamental	05
19	Annona sqamosa	Seethaphalam	Annonaceae	Т	Edible	15
20	Psidium guajava	Jama	Myrtaceae	Т	Edible	02
21	Dueranta	Border plant	Pteridophyte	S	Ornamental	26

21	Leucaena leucoceph ala	Subabul	Mimosaceae	Т	Avenue	30
22	Murraya paniculata	Puvelaga	Rutaceae	Т	Medicinal	01
23	Tectona grandis	Teak	Verbenaceae	Т	Timber	153
24	Pithecolob ium dulce	Seema chintha	Mimosaceae	Т	Edible	01
25	Cassia auriculata	Tangedu	Caesalpinaceae	Т	Avenue	36
26	Cassia fistula	Rella	Caesalpinaceae	Т	Avenue	05
27	Acacia melanoxyl on	Nalla thumma	Mimosaceae	Т	Avenue	06
28	Sterculia foetida	China Badham	Malvaceae	Т	Ornamental	10

#### LIST OF MEDICINAL PLANTS IN THE CAMPUS

S. No.	Scientific Name of Plant	Local Name	Family	Habit / T/S/H/C	Uses	Nos.
1	Prosopis cineraria	JAMMI CHETTU	Mimosaceae	Н	Medicinal	01
2	Calatropis procera	<u>Tella Jilledu</u>	ASCLIPEDIACEAE	S	Medicinal	5
3	Aloe vera	<u>Kalabanda</u>	LILLIACEAE	S	Medicinal	10
4	Oscimum temuiflorin	<u>T</u> ulasi	<u>L</u> amiaceae	S	Medicinal	20
5	Allium cepa	<u>Onion</u>	Liliaceae	Н	Medicinal	5
6	Tinospora cordifolia	TIPPATEEGA	Menispermaceae	С	Medicinal	07
7	Eclipta alba	<u>Guntakalaga</u> <u>ra Aku</u>	Asteraceae	Н	Medicinal	08
8	Phyllanthus amarus	<u>Phyllanthus</u>	Euphorbiaceae	Н	Medicinal	06
9	Lawsonia inermis	Gorintaku	Lythraceae	S	Medicinal	02
10	Azardiricta indica	Neem	Meliaceae	Т	Medicinal	540

11	Pongamia pinnata	Indian Beech Kanuga Chettu	Fabaceae	Т	Medicinal	382
12	Aegle marmelos	Maredu Chettu	Rutaceae	Т	Medicinal	02
13	Emblica officinalis	Amla	Euphorbiaceae	Т	Medicinal	48
14	Muraya koengii	Curryleaves	Rutaceae	Т	Medicinal	02
15	Calotropis gigantia	Jilledu	Asclepidaceae	S	Medicinal	13
16	Zyzipus jujuba	Regu Chettu	Rhamnaceae	S	Medicinal	24
17	Cleome viscosa	<u>Kukkavaminta</u>	Capparidaceae	Н	Medicinal	08
18	Achyranthus aspera	Uttareni	Amarathanceae	Н	Medicinal	166
19	Euphorbia hirta	Pacchabotlu	Euphorbiaceae	Н	Medicinal	08
20	Tridax procumbens	Gaddi Chamanthi	Asteraceae	Н	Medicinal	07
21	Aerva lanata	<u>Kondapindaku</u>	Amaranthaceae	Н	Medicinal	08
22	Phyllanthus niruri	<u>Nelavusuri</u>	Euphorbiaceae	Н	Medicinal	11
23	Tephrosia purpuria	Vempali	Fabaceae	Н	Medicinal	15
24	Cardiospermu m halicacabum	Budda kakara	Sapindaceae	Н	Medicinal	06
25	Calotropis procera	<u>Tella zillade</u>	Asclepidaceae	S	Medicinal	15
26	Cissus quandrangular is	<u>Nalleru</u>	Vitaceae	С	Medicinal	01
27	Bryophyllum pinnatum	<u>Ranapala</u>	Crassulaceae	Н	Medicinal	03
28	Catharanthus roseus	Billaganneru	Apocynaceae	Н	Medicinal	03

29	Phyllanthus acidus	<u>Chinna usiri</u>	Euphorbiaceae	Т	Medicinal	01
30	Moringa oleifera	Munaga	Moringaceae	Т	Medicinal	03
31	syzygium cumini	Neredu	Myrtaceae	Т	Medicinal	09
32	Tamarindus indica	Chinta chettu	Caesalpinaceae	Т	Medicinal	11
33	Prosopis juliflora	<u>Thumma</u>	Mimosaceae	Т	Medicinal	03
34	Dalbergiasisso o	Rosewood	Fabaceae	Т	Medicinal	05
35	Bauhinia racemosa	Bidi leaf tree	Fabaceae	Т	Medicinal	08
36	Wrightia tinctoria	Pala indigo plant	Apocynaceae	Т	Medicinal	02
37	Butea monosperma	Moduga	Fabaceae	Т	Medicinal	17
38	Phoenix dactylifera	Date	Arecaceae	Т	Medicinal	13

5. List the species planted by the students, with numbers.

-	100
-	50
-	15
-	05
-	15
-	124

- 6. Whether you have displayed scientific names of the trees in the campus? YES
- 7. Is there any plantations in your campus? If yes specify area and type of plantation.

YES, 3 Acres, mixed plantation

8. Is there any vegetable garden in your college? If yes how much area?

NO

9. Is there any medicinal garden in your college? If yes how much area?

NO

10. What are the vegetables cultivated in your vegetable garden? (Mention the quantity of harvest in each season)

NO

11. How much water is used in the vegetable garden and other gardens? (Mention the source and quantity of water used).

NO

12. Who is in charge of gardens in your college?

NO

13. Are you using any type of recycled water in your garden?

NO

14. List the name and quantity of pesticides and fertilizers used in your gardens?

NO

15. Whether you are doing organic farming in your college? How?

NO

16. Do you have any composting pit in your college? If yes, what are you doing with the compost generated?

NO

17. What do you doing with the vegetables harvested? Do you have any student market?

NO

18. Is there any botanical garden in your campus? If yes give the details of campus flora.

NO

19. Give the number and names of the medicinal plants in your college campus.

NO

20. Any threatened plant species planted/conserved?

Cycus plants

21. Is there a nature club in your college? If yes what are their activities?

YES, Haritha Haram, Swatchha Bharath, Clean and Green, Maintaining the Eco –pond.

22. Is there any arboretum in your college? If yes details of the trees planted.

NO

23. Is there any fruit yielding plants in your college? If yes details of the trees planted.

YES, Pomegranate, Custard apple, Blue Berry, Mango, Guava, Lemon.

24. Is there any groves in your college? If yes details of the trees planted.

NO

25. Is there any irrigation system in your college?

NO

26. What is the type of vegetation in the surrounding area of the college?

NO

27. What are the nature awareness programmes conducted in the campus?

World Ozone Day, Haritha haram Day, NSS day, World Water Day and World Environmental day.

28. What is the involvement of students in the green cover maintenance?

Planting the plantation, Watering plants and cleaning the surroundings

29. What is the total area of the campus under tree cover? Or under tree canopy?

3 acres

30. Share your IDEAS for further improvement of green cover.

- 1. Create a campus garden.
- 2. Be smart about transportation.
- 3. Purchase reusable bags.
- 4. Monthly wise data collection.
- 5. Be conscious of nature.
- 6. Keep a garden journal.
- 7. Create a conservation parks.

#### AUDITING FOR CARBON FOOTPRINT

1. What is the total strength of students and teachers in your College?

448+15+7=470 students + teachers

No. of Students No. of Teachers No. of Non-teaching staff Gents Ladies Total

531 students +18 techets & 7 non teaching ,2 ladies

- Total Number of vehicles used by the stakeholders of the college. (per day)
- 20 vehicles
- 3. No. of cycles used

50

4. No. of two wheelers used (average distance travelled and quantity of fuel and amount used per day)

no

5. No. of cars used (average distance travelled and quantity of fuel and amount used per day)

no

6. No. persons using common (public) transportation (average distance travelled and quantity of fuel and amount used per day) 450 numbers

7. No. of persons using college conveyance by the students, non-teaching staff and teachers (average distance travelled and quantity of fuel and amount used per day) 30 liters

8. Number of parent-teacher meetings in a year? Parents turned up (approx.) 175 parents

9. Number of visitors with vehicles per day?

10

10. Number of generators used per day (hours). Give the amount of fuel used per day.

no

11. Number of LPG cylinders used in the canteen (Give the amount of fuel used per day and amount spent). 3

12. Quantity of kerosene used in the canteen/labs (Give the amount of fuel used per day and amount spent). zero

13. Amount of taxi/auto charges paid and the amount of fuel used per month for the transportation of vegetables and other materials to canteen.

NA

14. Amount of taxi/auto charges paid per month for the transportation of office goods to the college.

NA

15. Average amount of taxi/auto charges paid per month by the stakeholders of the college.

NA

16. Use of any other fossil fuels in the college (Give the amount of fuel used per day and amount spent).

NA

17. Suggest the methods to reduce the quantity of use of fuel used by the

stakeholders/students/teachers/non-teaching staff of the college.

NA

18. Are the Rooms in Campus are Well Ventilated? Yes/No

YES

91. Window Floor ratio of the Rooms Good/Not Enough

ROOMS GOOD

## **Carbon Footprint - Sample Report**

• Petrol used by two wheelers/day-229 L

• (Per person to and fro 40 Kms=1L) Fuel used by four wheelers (52 Persons) - 104 L

• (Per person to and fro 40 Kms=2L) Fuel for persons (total 2314 persons) travelling by common

• Transportation =184 L (4L x 50 persons)

Total fossil fuel use is 517 L / day

Total fuel cost per day for transportation =Rs. 36190/- (517 L x Rs 70 )

Cost of stakeholder transportation per month (Rs.36190x22 days)-Rs.796180

#### 1. Water management

SL NO	PARAMETERS	Response	Remarks
1	Source of water	BORE WELL	
2	No. of Wells	1	
3	No. of motors used	1	
4	Horse power – Motor	0.5	

5	Depth of well –Total	100 FEET	
6	Water level	GOOD	
7	Number of water tanks	3 TANKS	
8	Capacity of tank	5000	
9	Quantity of water pumped every day	1000	
10	Any water wastage/why?	NO	
11	Water usage for gardening	YES	
12	Waste water sources	NO	
13	Use of waste water	YES	
14	Faith of waste water from labs	NO	
15	Whether waste water from labs mixed with ground water	YES	
16	Any treatment for lab water	NO	
17	Whether any green chemistry method practiced in labs	YES	
18	No. of water coolers	3	
19	Rain water harvest available?	YES	
20	No. of units and amount of water harvested	3	
21	Any leaky taps	3	
22	Amount of water lost per day	10 LITERS	
23	Any water management plan used?	YES	
24	Any water saving techniques followed?	YES	
25	Are there any signs reminding peoples to turn off the water?	YES	

## Results of water quality

Parameters	Bore Well water	Over Head Tank water	Standard value (BIS)
Dissolved Oxygen (mg/l)	5.8	6.2	6-8
Acidity (mg/l)	-	-	200
Alkalinity (mg/l)	106	184	200
Chloride (mg/l)	120	72	250
Hardness (Total)	235	80	200
Conductivity (µs)	1.562	0.560	
Ph.	7.2	6.8	6.5-8.5

Total Dissolved Solids (ppm)	760	280	500
Salinity (ppt)	-	-	
Total coliform	2.0	4.0	0
Fecal coliform	1.0	2.0	0

## Water Quality analysis (Biological) report of college – II (with Photographic evidence)

S.No	Parameter/ WHO permissible level	Zooplankton (No of Samples/Sites)	Methodology
1	Protozoan (Ciliates)	NIL	
2	Rotifers	NIL	
3	Ostracods	NIL	
4	Insect Larvae	NIL	
5	Water Fleas	NIL	
6	Bivalves	NIL	
7	Snails	NIL	
8	Mussels	NIL	
9	Any Other (Specify)	NIL	

## Water Quality analysis (Biological) report of college – II (with Photographic evidence):

S.No	Phytoplanktons	Scientific Name	Methodology
		and number	
1	Diatoms (Bacillariophyceae)	NIL	
2	Dinoflagellates	NIL	
	(Dinophyceae)		
3	Coccolithophores	NIL	
	(Prymnesiophyceae)		
4	Green algae (Chlorophyceae)	OEDOGONIEM	
5	Cyanobacteria (earlier Blue-	NOSTOC, OCILLATORI	
	green algae)	А	
6	Others (specify)		

#### 1. ENERGY AUDIT

Room No. / name	Electrical device/ items	Number	Power	usage time (hr/day)
12	3	45	120khw	3/30

## 2. Waste management

#### Approximate quantity of waste generated per day (in kg)

Office				
Approx.	Biodegradable	Non -Biodegradable	Hazardous	Others
<1Kg		<1kg		
2-10Kg				
>10Kg				

Laboratories	5			
Approx.	Biodegrad able	Non - Biodegradable	Hazardo us	Others
<1Kg		<1kg		
2-10Kg				
>10Kg				

Canteen/ki	tchen			
Approx.	Biodegrad able	Non - biodegradable	Hazardo us	Others
<1Kg		<1kg		
2-10Kg				
>10Kg				

## How the waste generated in the college is managed?

A)Composting/ Vermicomposting	Yes/ No	Remark
B)Recycling	Yes	
C)Reusing	Yes	
D)Other ways		

## Waste generated in the college?

E-waste		No
Hazardous waste	No	
Solid waste	No	
Dry leaves	Yes	
Canteen waste	No	
Liquid waste	No	
Glass		No
Unused Equipment	No	
Napkins		No
Others (specify)	No	no

Do you use recycled paper in college?	No
Any waste management methods used?	no

## Energy Audit Sample Report

			_		1.11/	Onenation	1.5.6.0		
SI. NO	Electrical	Num	Power	Tot al	KVV	Operation	kW/hr.	No.of	Total
	appliances/i	ber	(W)/	power		/day		days in	consump
	nstruments		unit	(W)				month	tion per
									month
									month
1	CEL	63	14	882	0.88	4	3.528	25	88.2
_	0				2		0.010		
2	TUBE	272	38	103	10.3	4	41.34	25	1033.6
				36	3		4		
					6				
4	LED BULB	97	9	873	0.87	4	3.492	25	87.3
					3				
5	LED TUBE	42	20	840	0.84	4	3.36	15	50.4
6	PROJECTOR	10	280	280	2.8	1	2.8	25	70
				0					
7	SPEAKERS	36	10	360	0.36	1	0.36	25	9
8	FAN	233	60	139	13.9	4	55.92	20	1118.4
				80	8				
9		140	250	350	35	4	140	20	2800
	COMUTER	140	230	00	55	-	140	20	2000
				00					
10	LAPTOPS	10	50	500	0.5	4	2	20	40
11	PRINTERS	2	60	120	0.12	1	0.12	20	2.4
12	PHOTOSTA	6	650	390	3.9	2	7.8	15	117
	Т			0					
	MACHINE								
13	SCANNER	1	50	50	0.05	0.5	0.025	15	0.375
14	UPS	3	1000	300	3	12	36	20	720
				0					
15	INDUCTION	1	2000	200	2	0.25	0.5	15	7.5
				0				_	_
16	A/C	2	7000	140	14	1	14	15	210
10	A, C	2	7000	00	17	-	17	15	210
17		7	150	105	1 05	24	25.2	20	750
1/	REFRIGERA	/	150	105	1.05	24	25.2	30	/56
	TUR			0		-			
18	TABLE FAN	2	55	110	0.11	2	0.22	25	5.5
19	MIXER	2	750	150	1.5	2	3	15	45
	GRINDER			0					
20	OVEN	3	1500	450	4.5	2	9	10	90
				0					
22	CENTRIFUG	2	850	170	1.7	0.25	0.425	8	3.4
	E	-		0					
23		1	1700	170	17	1	17	1	6.8
25	F	Т	1,00	1/0	1./		1./	-	0.0
24			700	U		0.05	0.475		0.075
24		1	/00	/00	0.7	0.25	0.1/5	5	0.875
1			1	1	1	1			

25	LAMINAR FLOW	1	600	600	0.6	1	0.6	15	9
26	EXHAUST FAN	1	32	32	0.03 2	4	0.128	25	3.2
27	IRON BOX	2	2000	400 0	4	0.25	1	15	15
28	SEWING MACHINE	6	100	600	0.6	4	2.4	25	60
29	COLOUR BULB	13	60	780	0.78	1	0.78	5	3.9
30	INCUBATO R	2	40	80	0.08	4	0.32	25	8
31	DISTILLATI ON UNIT	1	1000	100 0	1	1	1	12	12
32	SANITARY NAPKIN INCINERAT OR	6	1200	720 0	7.2	1	7.2	25	180
33	CCTV DVR	24	10	240	.24	24	5.76	30	720
	<b>Total</b> Consumptio n per month						9515.15 kW/hr		

## Faunal diversity in college campus (with Photographic evidence)

Faunal group	Scientific name	Number (If enumeration is done)	Seasonality
Spiders	ARANEA	23	MONSOON
Moths & butterflies	Rhopalocera	200 above	MONSOON
Other insects: (Dragon Flies, Bees, Wasps, Bugs, and Beetles etc)	Anisoptera (Dragan Flies), Anthophila (Bees), Melolontha (Beetles)	200 above 40 above 30 above	MONSOON
Annelids	NIL		
Other Arthropods	Priplanata (Cockroach), Julus (The wire warms)	20 above 100 above	MONSOON
Amphibians	NIL		
Reptiles	Ptyas (rattle snack)	10	
Birds	Pasar Domesticas (Sporrow), Columbalivia	50 above 20	

	(pigeon)		
Mammals	Funambulus	10	
	(Squirrels),	50	
	Peteropus (Bats),	20	
	Ratus ratus		
	(rats)		
Any other (specify)	NIL		

#### Air quality Determination: Air Quality Index (parameters studied/recorded/ Seasonal):

NO <sub>2</sub>	yes
NO	no
O <sub>3</sub>	yes
PM2.5	No
PM10	No
СО	Yes
Humidity	Yes
Barometric Pressure	Yes
Wind Speed	5kms/per hour
Wind Direction	East to west
Sun Rise	Yes East
Sun Set	Yes west

#### Measurements of Noise level in and around the college

S.No	place (S)	Measurements (Duration in seconds)	Minimum (dBA)	Maximum (dBA)	Average (dBA)
1	Library	No			
2	Canteen	No			
3	Play ground	No			
4	Auditorium	No			
5	Science Block	No			
6	Any Other (Specify)	no			

If any eco-friendly or restoration activities conducted, please specify.

## **GRADING FOR ENVIRONMENTAL AUDIT REPORT**

S.NO	COMPONENTS FOR ASSESSMENT	MARKS	GRADES
1	Energy audit	20	
2	Waste audit	15	A+ :91-
3	Water audit	15	100
4	Landscape or Environment audit	15	
5	Carbon footprint & Oxygen emission audit	15	A : 81-90
6	Green activities (conduction of seminars/conferences/workshops/student competitions/awareness programmes/observation of environmental related days etc.	10	B+:71-80
7	Student clubs (Environmental club/Green club/Nature club/Biodiversity club/ ECO Club/Friends and Fauna Club/Science club etc.) activity annual report	10	B : 61-70 C : 51 - 60
	Total	100	]

## **Photo Gallery**





















Kondanagula, Telangana, India 8JQ2+8C4, Kondanagula, Telangana 509401, India Lat 16.33814° Long 78.60179° 24/09/21 11:46 AM

GPS Map Camera

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Google



Principal

egres Or HAGOLA -900