

YCSSW Green Audit Report 2020-21

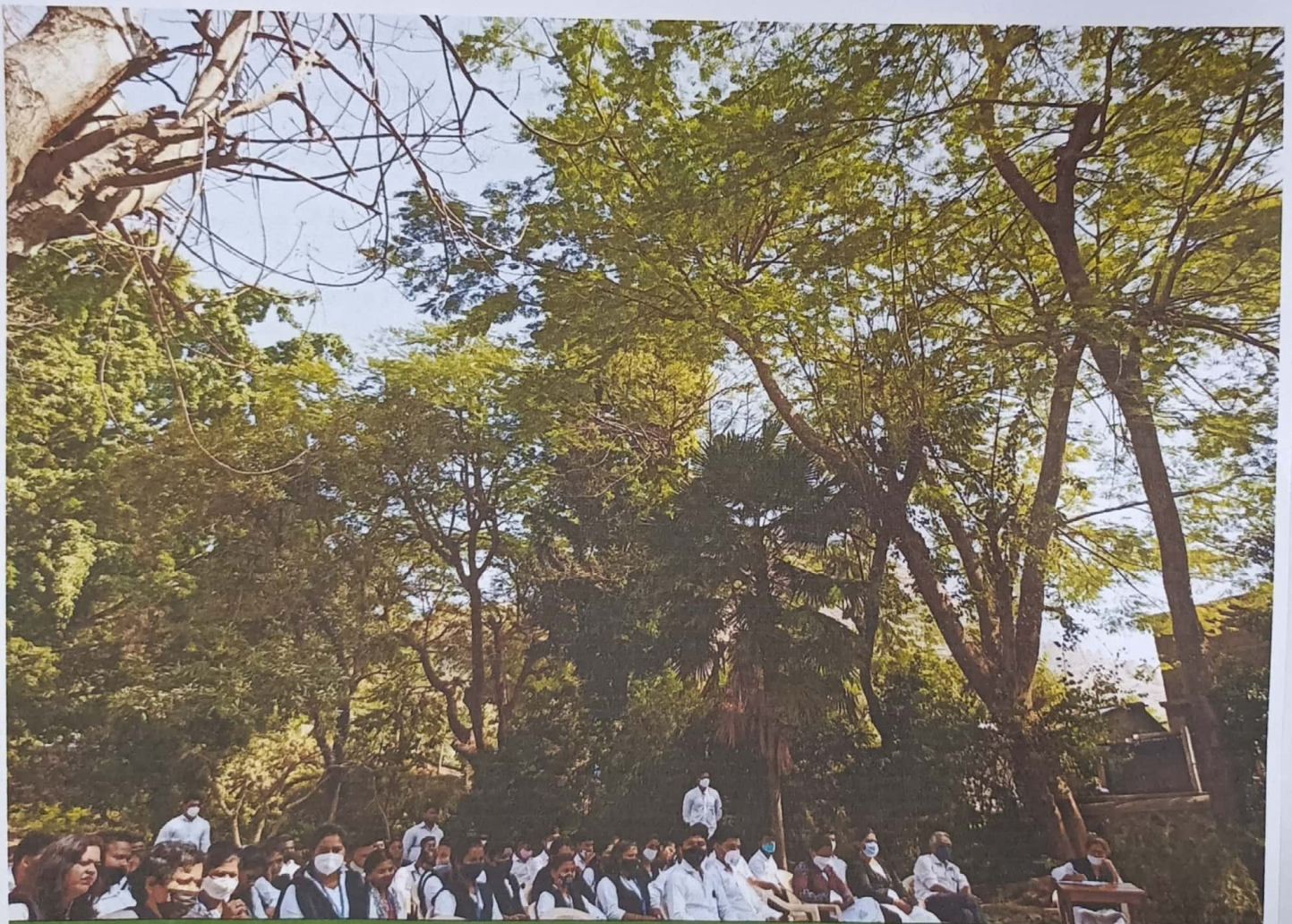
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Green Audit Report 2020-21

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1. Introduction

The term "Green" means eco-friendly or not damaging the environment. This can acronymically be called as "Global Readiness in Ensuring Ecological Neutrality" (**GREEN**). Green Audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. It aims to analyze environmental practices within and outside campus which will have an impact on the eco-friendly campus. Eco-campus is a concept implemented by many educational institutions around the world. To make them sustainable due to their large resource utilization and waste discharge environment. To find out the environmental performance of educational institutions green audits are mandatory. YCSSW green audit team were given training regarding how to conduct green audit. The faculty and students have conducted green audit.

2. Objectives of Green Audit

1. To provide staff and students better understanding of Green impact on campus.
2. to determine how and where they are using the most energy or water or resources; the college can then consider how to implement changes and make savings. I

3. Members of Green Audit Committee

1	Dr.Shaly Joseph In-charge Principal	Chairperson
2	Dr.Pankajkumar Das Assistant Professor	Coordinator
3	Mr. Laxman Dhane Principal, Shardabai Pawar Ashram School, Jakatwadi, Satara	Member
4	Sai Pawar (UG)	Student
5	Kiran Yadav (PG)	Student

4.About YCSSW Green Campus policy

To achieve excellence in teaching and learning, Yashwantrao Chavan School of Social Work (YCSSW), Jakatwadi, Satara aims to look at its academic facilities and promote green campus initiatives through preservation, protection and conservation of natural resources. The institution offers through its green campus concept the opportunity to take lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of the mankind.

The formula of (3 R's) **Refuse, Reduce, and Reuse** is applied in all walks of life by the students and faculty. Green Campus is a place where environmental friendly practices and educational systems jointly promote sustainable and eco-friendly atmosphere in the campus. We believe that Green Campus status can be achieved by bringing in association one or number of the following themes: Energy; Soil and Water conservation; Waste management; Green Campus & Biodiversity, etc.

The institute makes continuous efforts to comply with environmental legislations through following objectives.

- To preserve, protect and conserve environmental and natural resources within the campus.
- To ensure among staff and student, judicious use of environmental resources to meet the needs and aspirations of the present generation along with the future generations.
- To incorporate government environmental policies, plans and programmes for social development and outreach activities.
- To work with all stakeholders and the local community to raise awareness and seek the adoption of environmental best practices.
- To continuously improve the efficient use of all resources, including energy and water.
- 100 per cent paper less work: To circulate all kinds of information to students and faculty through digital means.

4.1. Restricted entry of automobiles:

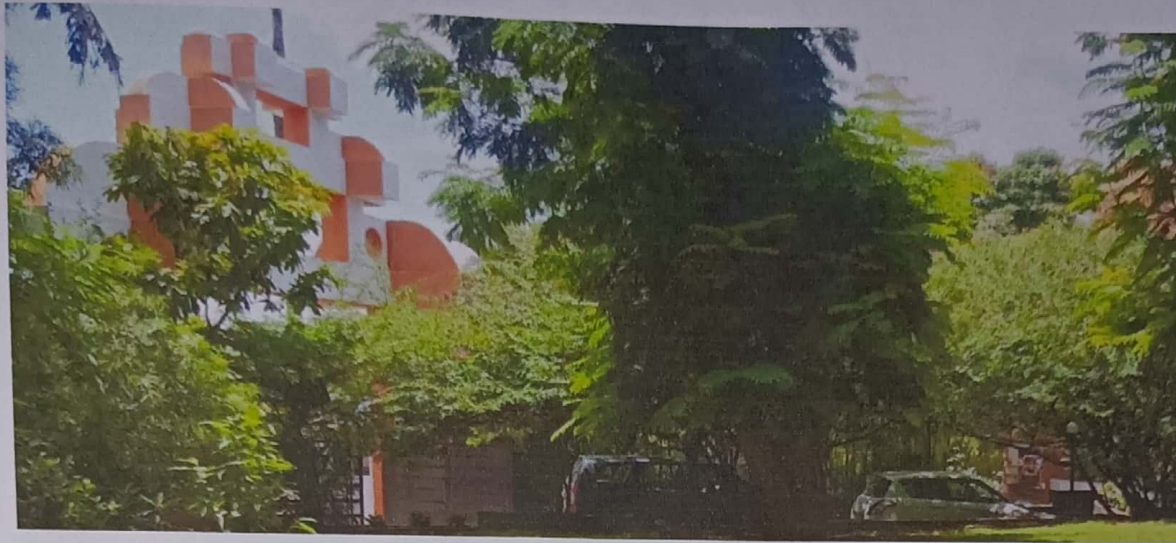
Once in a week no vehicle day is observed by students and faculty to reduce carbon foot prints

4.1.2. Use of Bicycles:

Students are motivated to walk small distance destinations. Use of bicycles is also initiated among students and faculty. Health benefits in the long run are explained to them. As they are our ambassadors we insist them to spread this message among all the stake holders. Societal approach towards the use of battery powered vehicle is not very positive and secondly due to the high prices of these vehicles they are not preferred by many at present.

4.1.3. Pedestrian Friendly pathways:

YCSSW campus follows the Pedestrian-friendly pathways in all its area and these pathways are properly marked with suitable logo/signs. The quality of lawns and pedestrian are regularly maintained with proper cutting, watering and use of compost fertilizers.



4.1.4. Ban on use of Plastic:

Plastic use is PROHIBITED in YCSSW Campus



YASHWANTRAO CHAVAN SCHOOL OF SOCIAL WORK, SATARA

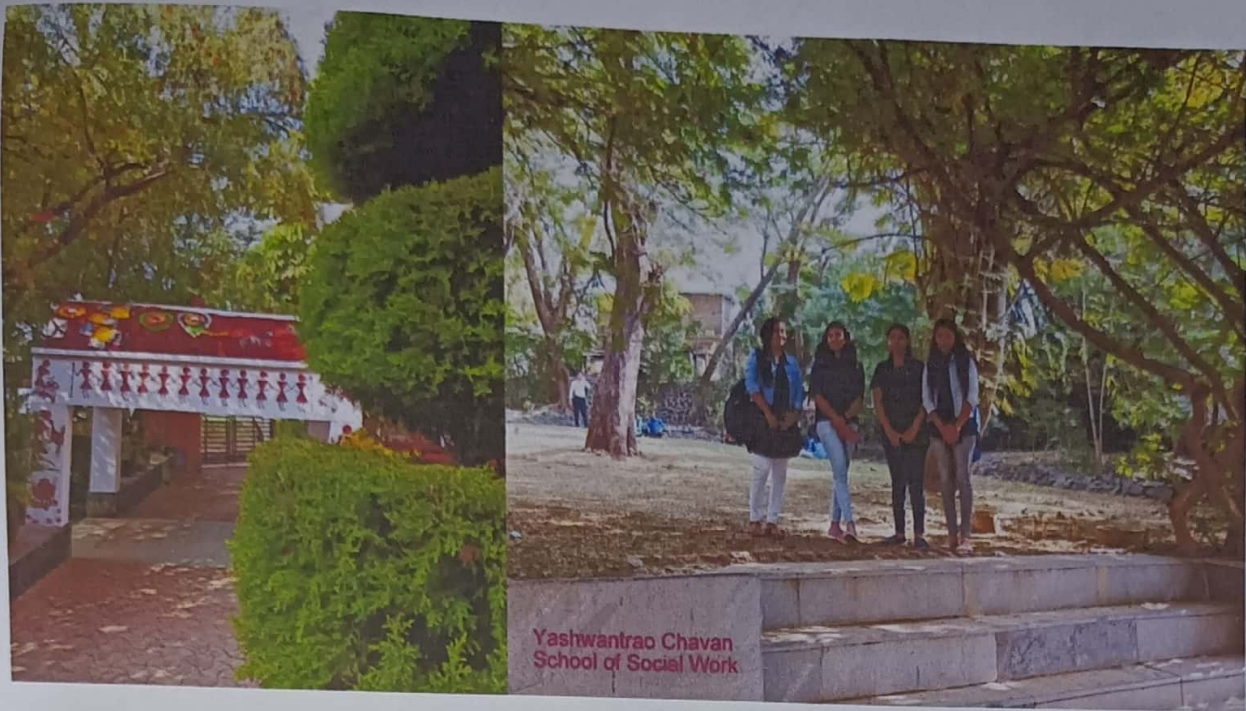


#Beat Plastic Pollution



Efforts are taken to make our campus plastic free. In view of the Government of India's resolution to ban all single use plastics due to the hazardous impact of plastic use and pollution, the college administration strictly bans the use of single use plastics in its premise to make it a 'Plastic Free Campus'. Minimal use of plastic is preached and practiced within our Campus. Plastic bags, bottles are disposed scientifically. Use of non plastic goods is encouraged for students and faculty. Waste bins are placed at different locations to collect the non degradable and degradable waste, further it is sorted and accordingly waste material is disposed.

4.1.5. Landscaping with trees and plants:



The institute's landscape with trees and plants provides space for study, play, outdoor events, relaxation and aesthetic appreciation. The landscape serves as a visual representation of the campus community's commitment to sustainability. YCSSW is moving in the direction of a Green Institution in Maharashtra planting more trees within the campus. Due to this initiative our institute has received the prestigious first prize award from Government of Maharashtra namely, "Shivaji Maharaj Vanashree Puraskar".

In the campus measuring about 14 acre, approximately there are more than 278 big trees, 319 small trees and more than 1568 shrubs on campus along with of grass cover. The landscape of trees and plants provide 300+ students and staff with clean and cool air with a soothing environment.

The diverse green cover of YCSSW is also home to a number of animals and rare birds across at least 24 species, creating a campus rich in biodiversity. YCSSW is committed to enriching this healthy habitat and maintaining the symbiotic relation of the institution with nature by, organizing annual tree plantation drives and encouraging students to hold tree plantation events. Medicinal plants, fruit plants and local trees have been planted to maintain fresh and cool atmosphere. The abundant natural landscape not only cleans the air on campus but also becomes an extension of the green lungs of the city.



5. Flora and Fauna in YCSSW

5.1. Plants details

Sr. no.	Plant type	Number
1	Coconut tree {cocosnucifera}	125
2	Arecanut(areca catechu)	45
3	Bamboo (Bambusa vulgaris)	485
4	Banyan tree (ficusbenghalensis)	1
5	Bottle brush (hyophorbelagenicaulis)	5
6	Bottle palm (hyophorbelagenicaulis)	5
7	Cashew tree(anacardiumoccidentale)	4
8	Chandan(Indian Sandalwood)	40
9	Christmas Tree	2
10	Ficus tree (ficusbenjamina)	25
11	Golden Chapha (Magnolia Champaca)	7
12	Gulmohar(Delonix regia)	12
13	Jackfruit tree (artocarpusheterophyllus)	5
14	Jamun tree(java plum)	25
15	Jangli Shevri	6
16	Jasmine (genus jasminum)	5
17	Khalipha (Acalypha Wilkefiana)	22

18	Khalipha(Acalypha Wilkesiana)	22
19	Kunti(Murraya Paniculata)	23
20	Mango tree (magnifera indica)	175
21	Pangera(Erythrina Variegata)	2
22	Sabudana(Cyas Evalata)	50
23	Sago plants garden (cucas revolute)	1
24	Sapodilla tree (manilkara zapota)	100
Total		1202

5.2. List of bird species:

Four bird species have been discovered in YCSSW campus i.e. Indian Cuckoo, Sparrow, Crow, and Kingfisher.

Sr no	Name of bird	Remarks
1	Cuckoo	The Indian cuckoo discovered on the YCSSW campus is around 30 centimeters long. It has a grayish/brown colour to it. The breeding season for cuckoos runs from March through August.
2	Sparrow	The sparrow can be spotted throughout YCSSW campus. It is a tiny bird that averages 15cm in length. Weighing between 24 and 39.5 gram.
3	Crow	Crows can be found all over the college in a variety of habitats.
4	Kingfisher	Occasionally Kingfisher is spotted in YCSSW campus.

5.3. List of butterfly species

Sr no	Name of butterfly species	Remarks
1	Branded royal	Is a species of blue butterfly of a very bright and beautiful shade of colour.
2	Common jester	Is a species of nymphalid. There are numerous regional forms, and the taxonomy of the group is not well resolved.
3	Blue butterfly	Is a second largest family of butterfly, they consistes about 30% of the known butterfly species.

6. Resource Uses and Management

6.1. Water management

No.	Particulars	Details
1	Source of water	Well Supply water from KAAS Lake
2	Number of wells	1
3	Number of motors used	2
4	Horse-power of motor	1. 7hp 2. 1hp
5	Depth of well total	40/45 feet depth
6	Water level	18 feet
7	Number of water tanks	3
8	Capacity of tanks	4500 thousand liter
9	Quantity of water pumped everyday	2000 thousand liter
10	Any water wastage /why?	No
11	Water usage for gardening	1000 liter /day
12	Waste water sources	From kitchen From toilets From used water
13	Use of waste water	For gardening
14	Waste water from labs	No
15	Whether waste water from labs mixed with ground water	No

16	Any treatment for lab water	No
17	Whether any green chemistry method practiced in labs	No
18	Number of water coolers	5
19	Rain water harvest available?	Yes
20	Number of units of water harvesting	3
21	Number of leaky taps	2(Repaired)
22	Any water management plan used	Jalsurksha chakra

Approx 2000 liters of water used in campus every day. YCSSW has two major water sources i.e. Well and water supply pipeline from Kass lake. Well water is pumped by two motors. The Horse power of the motor is 7hp and 1hp. The depth of the well is 18 feet. There are three water tanks on campus, with a tank capacity of 45000 liters. The amount of water pumped daily is 2000 liters. 1000 hundred liters of water used for gardening.

Waste water sources are from kitchen, and from toilets. YCSSW regularly monitor the uses of water and a rapid response to potential leaks in damage. Students are repeatedly given instructions and awareness about water conservation program. YCSSW have underground water pipeline for rain water harvesting.

YCSSW works on the following lines to become self sustained in water consumption. Judicial use of water on campus for all facilities is taken care of by all. Roof Top Rain Water Harvesting is used in our institute right from the inception. Special effort of water conservation is taken up by the institute with regard to rain water harvesting. YCSSW is situated in a heavy rain fed region, looking at the natural benefit of its location rain water harvesting and watershed project is implemented on the campus. Rain water is caught in three check dams, the overflowed water from these check dams is further collected in percolation tank.

All these initiatives have resulted into the rise of the underground water table. The water level of well is raised at high level, which fulfils all season need of water for garden and washrooms. Wise utilization of water on whole campus has developed a green campus. Waste water is recycled in a scientific way and used for garden. The cognizance of all these efforts is taken by Government of Maharashtra and published in a book, "On Water Conservation" in Marathi for standard 10th.

Tap leakages are reported and repaired as early as possible to prevent loss of water. Utmost care is taken to prevent wastage of water on campus. Students are provided information about wise utilization of water at the beginning of their educational program. The water

cooler are placed in the main campus to provide clean drinking water to students, the waste water of cooler is passed in the lawn which keep the lawn ever green throughout the year.

6.2. Waste Management

6.2.1. Waste segregation:

	Approximate quantity of waste generated per day (in kg)				
	Approx Quantity/Day	Bio-degradable	Non bio-degradable	Hazardous	others
Office	<1kg	Paper waste	No	No	-
Library	Rott<1kg	Paper waste	No	No	-
Canteen	<1kg	Vegetables bags ,	No	No	-
Classroom	<2 Kg	Paper waste, pen, pencil,	Yes-Plastic pens	No	-

Waste segregation begins in the classroom itself. Every classroom is equipped with two garbage cans _ one for the biodegradable and the others for non-biodegradable substances.

6. Solid waste management:

Waste bins are placed at appropriate locations. Use of waste from college, canteen and hostel is used for manure. Vermin compost and NADAP compost units are developed to convert decomposable waste. Solid waste from canteen and hostel is used for converting Vermin compost and compost fertilizer. This fertilizer is used for garden. Burning up of non degradable waste is strictly prohibited in campus. These non degradable items are handed over to the garbage carrier vehicle from Jakatwadi village gram panchayat. Our institution has signed MoU with this gram panchyat. This gram panchayat collects this type of waste from its gram panchayat area and gives it to the appropriate agency for further processing. Growing up of new plant in the place of decomposed plant is regularly done to develop ever green campus. Green building designs contributes maximum utilization of natural atmosphere. Non degradable waste is refused and reduced as far as possible. Reuse of paper is strictly followed in the campus. Care is taken to use both the sides of printing paper. The waste printed papers are used for either rough writing or printing.

7. Carbon foot print analysis:

The carbon foot print is the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by our actions. The overall number of vehicles used by the

college's stakeholders is 110/per day. The total number of cycles used is ten. A total of 100 two-wheelers are used each day. The total number of cars used by faculties and staff is ten. A total of 50 people use public transport. Each month, one LPG cylinder is utilized in the canteen.

YCSSW have maintained good green cover to improve CO₂ confiscation in and around campus. Open spaces are covered with lawns to eliminate dust. We encourage our students and staff to use public transportation. We encourage carpooling to college, an activity that will control air pollution and strengthen social interaction. The entry of automobiles inside the campus is restricted to discourage the use of private vehicles. No vehicle day is observed once in a week. All vehicles of college staff and students get the emission certificate on regular basis as it is made mandatory by the government and it also helps for the management of air quality.

Whole campus is developed as a green campus, indigenous trees like Neem, Mango, Black Berry, Tamarind, Babul, Amla, Chiku, Coconut, Drum Stick, and many more are planted to develop campus a green campus, along with indigenous plants few exotic plants are also planted. These trees are providing shelter to birds and animals. Our campus is developed as an oxygen park in this industrial era. To prevent dust all the open spaces are covered with lawns, these lawns are used for conducting open classes, and for various programs as open theatre.

Care is taken by students and faculty to switch off bulbs, tube lights and fans when not required, student who leaves the class in the end switches off electric equipments in case are on.

8. Energy audit

An energy audit is an inspection survey and an analysis of energy flows for energy conservation in a building. It may include a process or system to reduce the amount of energy input into the system without negatively affecting the output. In YCSSW , altogether there are total 18 rooms. There are total 7 classrooms in the YCSSW. Each classroom has switch board, camera, fan board, projector, LED bulb, LED tube.

The basic goal of our institution is to minimize the consumption of electricity. The buildings are designed in such a way that all the class rooms are fully ventilated and bright throughout day. As a result students and faculty members remain fresh throughout the day in natural environment. LED bulbs and tube lights are fitted in whole campus for minimal consumption of electricity. We also try finding one device with multiple functions. This helps to reduce the generation of e-waste at source. We have highly ventilated campus and hence use of fans is

minimal. Sometimes classes are arranged in the lawns in natural environment like Shantiniketan in close proximity with the nature.

S.no.	Electrical Units	No. of units	Power	Daily uses
1	Projector	9	280 W	Approx 5 hours
2	LED Bulb	59	14W	Approx 5 hours
3	LED Tube	33	20W	Approx 5 hours
4	Fan	34	60	Approx 5 hours
5	Motor	2	750W	Approx 3 hours
6	TV	2	150W	Approx 2 hours
7	Printer	4	110V	Approx 2 hours
8	Xerox machine	110V	150w	Approx 2 hours
9	Desktop Computer	47	250W	Approx 5 hours
10	Laptop	6	50W	Approx 5 hours

9. Suggestions and Recommendations

9.1.Awareness Initiatives:

Repeated awareness sessions should be conducted for student community so that to make students more aware about wise utilization of energy, slogans, posters are displayed throughout campus. Outreach and education are of utmost importance so that all members of the campus community may value the objectives of the policy and aid in its implementation. YCSSW should support and encourage more awareness campaigns, seminars, workshops, conferences and other interactive sessions to facilitate effective implementation of the Green Campus policy.

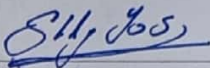

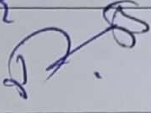
9.2. Energy Management

The energy audit suggests that the YCSSW should avoid using energy-intensive electrical appliances and instead replace them with more environmentally friendly and energy-efficient products. Renewable energy sources must be explored for their potential. As the College has a huge roof space that can be utilized for solar panel installation.

9.3.Waste Management

Leaf litter from the campus can be effectively used for aerobic/ vermi composting, so that the composted material can also be used as good manure.

Members of Green Audit Committee

Sl.no.	Name	Signature
1	Dr.Shaly Joseph In-charge Principal and Chairperson	
2	Dr.Pankajkumar Das Assistant Professor & Coordinator	
3	Mr. Laxman Dhane, Member Principal, Shardabai Pawar Ashram School, Jakatwadi, Satara	
4	Kiran Yadav (PG) Student	
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