



Shramjivi Shikshan Prasarak Mandal's  
**Adarsh Mahavidyalaya,**  
Tq. Omerga – 413606 Dist. Osmanabad (Maharashtra)

# Green Audit Report



Green Audit Report Submitted by

**KEDAR KHAMITKAR & ASSOCIATES**

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# GREEN CERTIFICATE

*This certificate has been awarded to*

Shramjivi Shikshan Prasarak Mandal's  
**Adarsh Mahavidyalaya, Omerga**

Tq. Omerga – 413606 Dist. Osmanabad (Maharashtra)  
*in recognition of the organizations efforts for  
sustainable development.*

Empanelled with



महाराष्ट्र ऊर्जा विकास अभिकरण  
(Govt. of Maharashtra Institution)

Reg no. MEDA/ECN/CR-14/2020-21/EA-17



*Kedar*

**Kedar Khamitkar**  
Energy Auditor CEA-8287  
Certified by BEE,  
Ministry of Power, Govt. of India



**ISO 9001-2015 Certified**



**Kedar Khamitkar & Associates, Latur**  
Empanelled with Mahaurja, Govt of Maharashtra Institution

Issued Date : 04/10/2022



Note : Certificate is based on organisation compliance on green audit  
recommendations and continual maintenance of the system & conduction of surveillance audit

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## **ACKNOWLEDGEMENT**

We express our sincere gratitude to the management of Shramjivi Shikshan Prasarak Mandal's, Adarsh Mahavidyalaya, Omerga for awarding us the assignment of Green Audit of their Omerga Campus.

We are thankful to:

### **Prof Dr. D.P. Garud, Principal Sir**

We are also thankful to various Head of Departments & other Staff members for helping us during the field measurements.





## EXECUTIVE SUMMARY:

Objective	Observation	Remarks / Recommendation
<b>Green Cover - Plantation of Trees</b>	Plantation of trees is started in the campus and the green cover is extended every year in the campus. At Present 29% area campus is having the Green cover.	A Continual plantation of trees is going on. It is recommended to increase the Green Cover Further.
<b>Use of Renewable Energy</b>	Institute has been installed Solar streetlight.	It is recommended to explore the vacant areas to increase the solar roof top plants to harness more Solar energy for Pumping & EV Vehicles.
<b>Water Conservation</b>	Installed Sign Boards.	It is recommended to install taps with reduced water flow
<b>Rain Water harvesting</b>	Rainwater Harvesting has been installed.	
<b>Avoid Misuse/ wastage of water</b>	RO water providing safe drinking water.	Waste water can used for Gardening.

	Encourage to reduce the water usage	Recommended Water Sprinkler system to save water.
<b>Bio Waste Management</b>	The Bio Waste – Food Waste generated in the campus is proposed to be feed stock for Bio Gas plant	Recommended for Bio gas plant.
<b>Non Bio Waste</b>	Non Bio Waste – Plastic Bottles / Paper Waste Metals waste is being collected in the dust bins placed across the campus.	It is proposed to install plastic bottle crusher, which can be sold as a Feed stock for the Plastic industry.
<b>E Waste</b>	E Waste – All Electronic Junk is generated in the campus in the form of Used Computer key boards/ Mouse/ CPU's/ Damaged Printers etc.	An agreement is in place with local Company to pick up the E waste every six month
<b>Carbon Foot Print</b>	Most staff commute in the College Transport -Buses from City	
<b>Transportation</b>	Students commute in the college provided transport - Buses	
	Students & Staff using EV Vehicles	Recommended to charge EV vehicles in day time between 9am to 3pm

## Chapter No.1 Scope of Work: Green Audit

Adarsh Mahavidyala, Omerga (M.S.) entrusted the work of conducting a detailed Green Audit of campus with the main objectives are as bellows:

### Objectives of Green Audit:

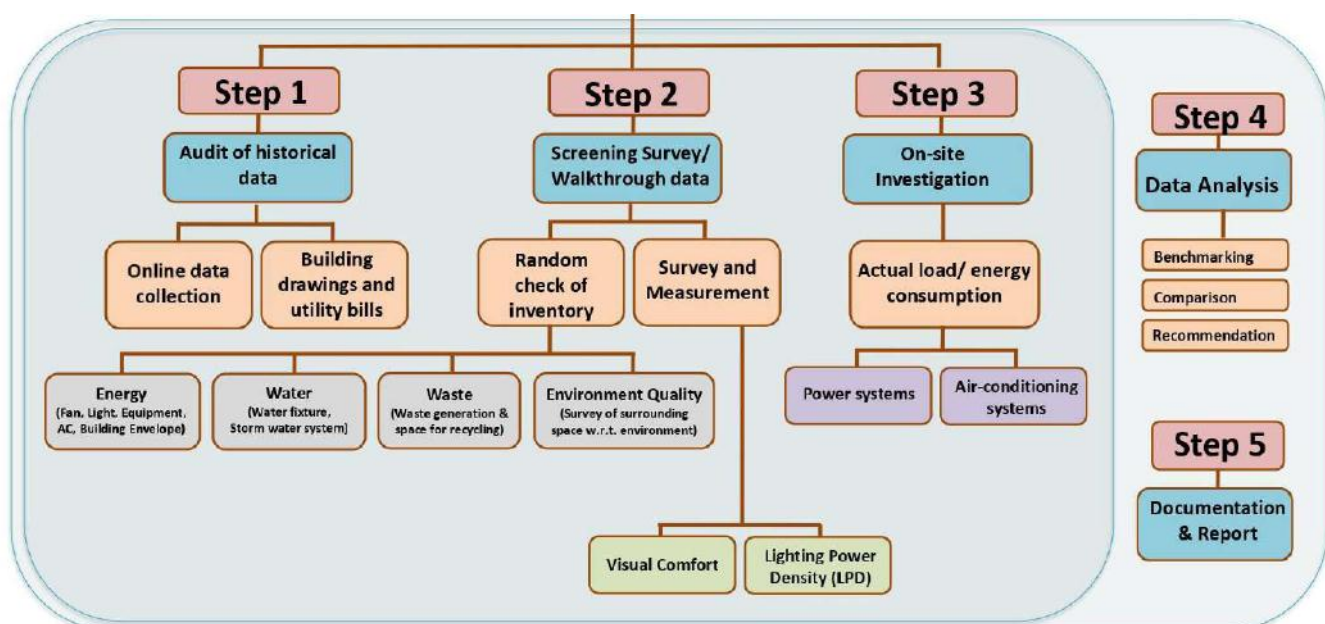
1. To examine the current practices, which can impact on environment such as of resource utilization, waste management etc.
2. To identify and analyze significant environmental issues.
3. Setup goal, vision, and mission for Green practices in campus.
4. Establish and implement Environment Management in various departments.
5. Continuous assessment for betterment in performance in green

### Need of Green Audit:

Green auditing is the process of identifying and determining whether institutions practices are eco-friendly and sustainable. Green audit regulates all such practices and gives an efficient way of natural resource utilization. In the era of climate change and resource depletion it is necessary to verify the processes and convert it in to green and clean one. Green audit provides an approach for it. It also increases overall consciousness among the people working in institution towards an environment.

### Methodology of Green Audit:

Adarsh Mahavidyala has been conducted a green audit with specific methodology as follows:



## Goals of Green Audit:

Adarsh Mahavidyala has been conducted a green audit with specific goals as:

1. Identification and documentation of green practices followed by the Institute.
2. Identify strength and weakness in green practices.
3. Analyze and suggest solution for problems identified.
4. Assess facility of different types of waste management.
5. Increase environmental awareness throughout campus
6. Identify and assess environmental risk.
7. Motivates staff for optimized sustainable use of available resources.
8. The long-term goal of the environmental audit program is to collect baseline data of environmental parameters and resolve environmental Issue before they become problem.





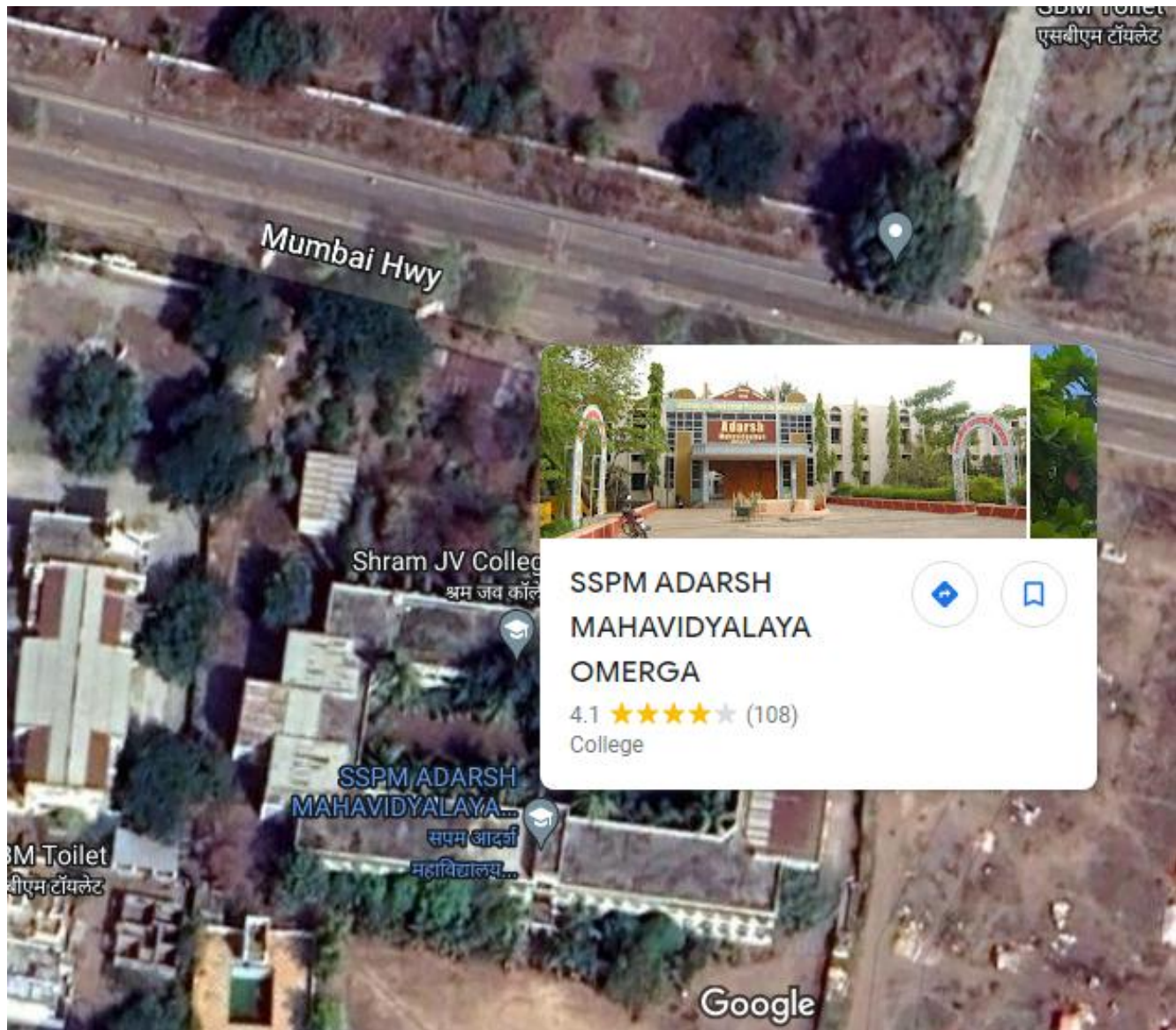
## Chapter No.2 Introduction about the Institute:

In the period of Indian National Movement Rajshri Shahu Maharaj, Shikshanmaharshi Karve, Karmveer Bhaurao Patil and Maharshi Shinde have made a precious contribution in the educational arena. In the post-independence period, the government has planned the number of schemes. The education adores in Omerga taluka, the youth social workers, Hon. Shri. Vinayakrao Patil, Hon. Shri. Basavraj Patil (Ex-State Minister for Rural Development, Maharashtra State), Shri. Ramkrishnapant Kharosekar, Shri. Marutirao Suryawanshi, Shri. Wamanrao Suryawanshi and other members of management council got mobilized and established Shramjivi Shikshan Prasarak Mandal on 10th September 1984.

<b>SN</b>	<b>Head</b>	<b>Particulars</b>
1.	<b>Name</b>	<b>Adarsh Mahavidyalaya</b>
2.	<b>Address</b>	<b>Omerga Dist. Osmanabad (M.S.)</b>
3.	<b>Courses Offered</b>	<b>Degree in Art, Science &amp; Commerce</b>

College is bound to accompany their students to carry our thought of proper educational and moral values to the remote rural parts and not confine it to the college premise itself or else. In the new century, while competing with the world, we wish our students should not be deficient anywhere, so, we have started the courses Microbiology, Industrial Chemistry & Computer Science etc. College have also started PG Courses of an M. A. (History), M.Sc. (Math), M.Sc.(Botany), M.Sc.(Zoology), M.Sc. (Comp. Science) and M.Sc. (Micro-Bio), etc. so that the student of this area should not face any inconvenience.

### AERIEL VIEW OF COLLEGE CAMPUS (SOURCE GOOGLE EARTH)



Main Road Omerga, NH65, Umarga rural, Maharashtra 413606  
17.833584293198758, 76.64010474107225





## Adarsh Mahavidyala, Omerga

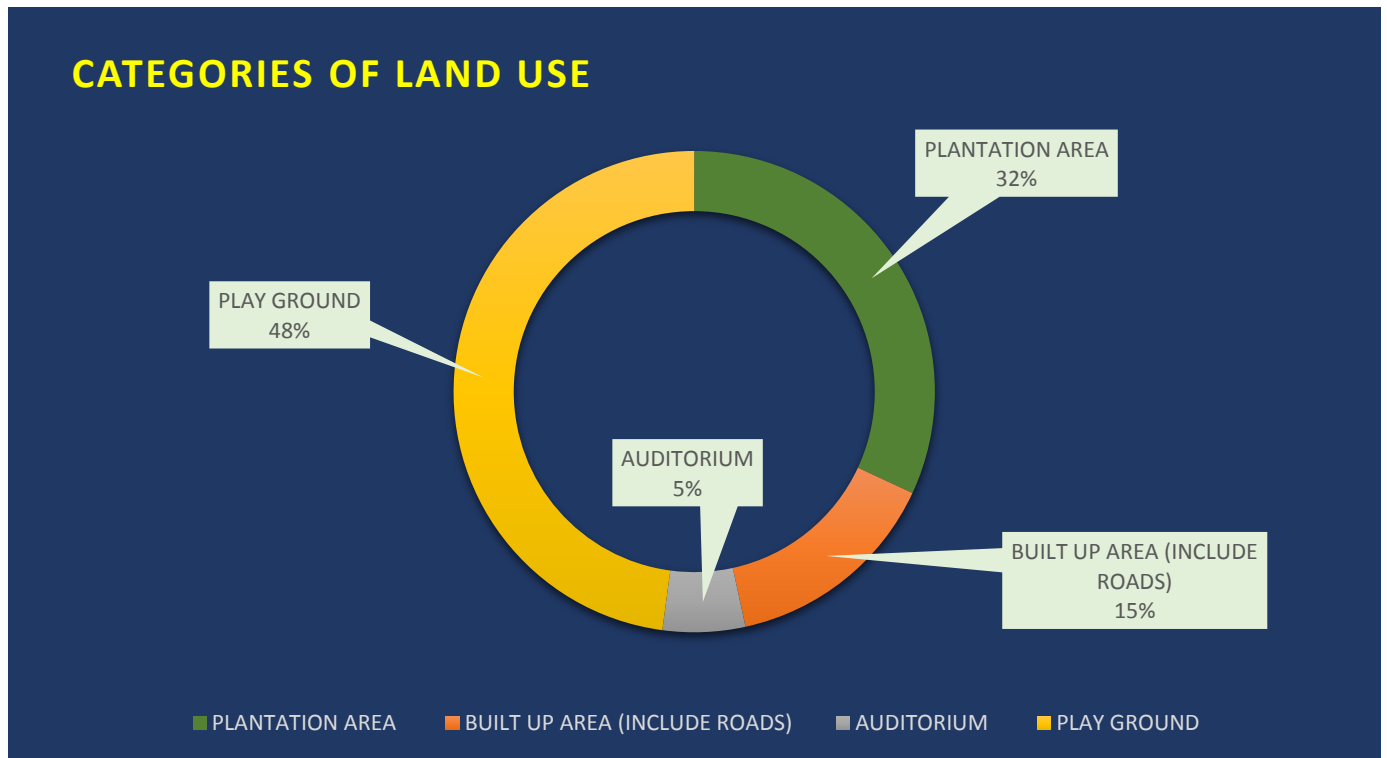
### Policy Document On Environment and Energy Usage

- To install LED bulbs in the complete campus to save energy
- To operate institute building in most efficient energy manner.
- Maximum use of Renewable Energy.
- Encourage a culture of Energy conservation on campus.
- To take additional measures to continuously improve our energy consumption.
- To develop and maintain Energy Management System based on ISO: 50001.
- To encourage use of advanced technology to minimize energy consumption.
- To engage in dialogue with the government agencies, and actively work with the local organizations in the areas of environment, energy efficiency and sustainable development.
- To strengthen our employees' and students' environmental knowledge and skills in order to improve our own environmental performance.
- To provide information and training opportunities on energy saving measures.
- To train our employees and students through our Enviro Club to make them 'Go Green Specialists' and partners to plant trees each year.

Principal



### Chapter No.3 Land use of Adarsh Mahavidyala, Omerga



### LAND USE ANALYSIS:

#### Audit Framework and detailed findings of the Audit:

CATEGORIES OF LAND USE AREA	Sq. Feet
PLANTATION AREA	43560
BUILT UP AREA (INCLUDE ROADS)	20000
AUDITORIUM	7560
PLAY GROUND	65340
<b>TOTAL AREA</b>	<b>13640</b>



## Chapter No.4 Faunal Diversity in Adarsh Mahavidyalaya

SN	Name of plant in Marathi	Botanical name	Total no's of plant in campus
1	Sitaphal (custard apple)	<i>Annona squamosa</i>	05
2	Limbu (Lemon)	<i>Citrus medica</i>	10
3	Ashok	<i>Polyalthia longifolia</i>	25
4	Nariyal (Coconut)	<i>Cocos nucifera</i>	37
5	Kala Shirish (Parrot Tree)	<i>Albizia odoratissima</i>	18
6	Kachnar, Kanchan tree (Orchid Tree)	<i>Bahuinia variegata</i>	12
7	Gulmohar (fire tree)	<i>Delonix regia</i>	03
8	Apta	<i>Bauhinia racemosa</i>	05
9	Jaswand ( <i>Hibiscus</i> )	<i>Hibiscus rosasinensis</i>	12
10	torch tree	<i>Ixora pavetta</i>	03
11	scarlet jungle flame	<i>Ixora coccinea</i>	06
12	Sago Palm	<i>Cycas revoluta</i>	02
13	Dalimb (Pomegranate)	<i>Punica granatum</i>	04



SN	Name of plant in Marathi	Botanical name	Total no's of plant in campus
14	Chikku	<i>Manilkara zapota</i>	03
15	Bottle palm	<i>Roystonea regia</i>	38
16	Fish Tail Palm (Ban Khajur)	<i>Borassus flabelifer</i>	09
17	Morphankhi (Thuja)	<i>Thuja accidentalis</i>	13
18	Rubber	<i>Ficus elastica</i>	03
19	Ramphal (Sweetsop fruit)	<i>Annona reticulata</i>	03
20	Chafa	<i>Plumeria rubra</i>	04
21	Parijatak (night-flowering jasmine)	<i>Nyctanthes arbor tristis</i>	03
22	Deshibadam ( <i>Almond</i> )	<i>Terminalia catappa</i>	06
23	Adulsa (Malabar nut)	<i>Adhatoda vasica</i>	01

SN	Name of plant in Marathi	Botanical name	Total no's of plant in campus
24	Kashid (kassod tree)	<i>Cassia siamea</i>	30
25	Rankanda (Indian squill)	<i>Drimia indica</i>	36
26	Nilgiri (Eucalyptus)	<i>Eucalyptus rostrata</i>	07
27	Jambhul (Indian blackberry)	<i>Syzygiumcumini i guajava</i>	01
28	Suru (Australian Pine)	<i>Casuarina equisetifolia</i>	08
29	Swastik (Crape Jasmine)	<i>Tabernaemonta na citrifolia</i>	03
30	Nandini (heavenly bamboo)	<i>Tabernaemonta na divaricata</i>	03
31	Kaner ( <i>Nerium oleander</i> )	<i>Nerium indicum</i>	14
32	Pimpal ( <i>fig tree</i> )	<i>Ficus religiosa</i>	06

SN	Name of plant in Marathi	Botanical name	Total nos of plant in campus
33	Anjeer (Fig tree)	<i>Ficus carica</i>	02
34	Shisham ( <i>Indian Rosewood Tree</i> )	<i>Dalbergia sissoo</i>	04
35	Neem ( <i>Margosa Tree</i> )	<i>Azadirachta indica</i>	16
36 37	Kekatad ( <i>Century plant</i> )	<i>Agava marginata</i>	04
38	Kadamb (burflower-tree)	<i>Anthocephalus cadamba</i>	06
39	Palas (Parrot tree)	<i>Butea monosperma</i>	02
40	Croton (Ban tulusi)	<i>Codiaeum variegatum</i>	06
41	Silk Cotton (shaalmali)	<i>Bombax ceiba</i>	04
42	Bahava (golden shower)	<i>Cassia fistula</i>	02

SN	Name of plant in Marathi	Botanical name	Total nos of plant in campus
43	Karanj (Indian beech)	<i>Pongamia pinnata</i>	03
44	Rangoon – Creeper (Madhumalati)	<i>Quisqualis indicus</i>	04
45	Plumeria (Chafa)	<i>Plumeria acuminata</i>	02
46	Chinch (Tamarind)	<i>Tamrindus indicus</i>	02
47	Grinum (Nagadavana)	<i>Grinum asiaticum</i>	06
48	Peru (Gava)	<i>Psidium guyava</i>	03
49	Wad (Banyan)	<i>Ficus bengalensis</i>	02
50	Bamboo	<i>Bambusa arundinaceae</i>	01
51	Kadi Patta (Curry leaves)	<i>Murraya koenigii</i>	01

SN	Name of plant in Marathi	Botanical name	Total nos of plant in campus
52	Yellow Bells (Ghanti ful)	<i>Tecoma stans</i>	01
53	Areca Palm (Pophali)	<i>Drypsis lutescens</i>	03
54	Bakul ( <i>Bulletwood tree</i> )	<i>Mimusops elengi</i>	07
55	Red powder puff (Rakhadi)	<i>Calliandra emarginata</i>	02
56	Amba (Mango)	<i>Mangifera indica</i>	02
		<b>Total</b>	<b>418</b>

## Faunal Diversity in Adarsh Mahavidyalaya





## Chapter No. 5: **Use of Renewable Energy** **Solar Street Lighting:**



**Institute has been installed about 20 poles of solar street light in the campus.**

Street lights are not connected to the electrical power grid: the solar light will produce its own energy from the sun (photovoltaic panel) and store the energy in a battery until the light turns on once it is dark enough.



## Solar Water Heater:

Institute has been installed solar water System. By Using, solar water heaters It is possible to reduce energy use and the associated costs. Such a system does not depend on fossil fuels and takes energy from the sun to heat stored water. It, therefore, saves money, which is a major advantage of solar heating systems. Also, it does not pollute the environment.



## Observations:

Institute has been taken good initiative for Sustainability.

## Chapter No. 6: **Study of Waste Management**

### **RAIN WATER HARVESTING:**

Water scarcity is serious problem throughout the world for both urban & rural community. Urbanization, industrial development & increase in agricultural field & production has resulted in overexploitation of groundwater & surface water resources and resultant deterioration in water quality. The conventional water sources namely well, river and reservoirs, etc. are inadequate to fulfill water demand due to unbalanced rainfall. While the rainwater harvesting system investigate a new water source.





## Rainwater Harvesting Recharge Points:



## Waste Management:

In the College during day operation, very little Qty. of Bio degradable waste is generated. The Institute has installed a Bio-composting pit, wherein fertilizer is generated which in turn is used in own garden.

## E-Waste Management:

The internal communication of the College is through Internet within the staff members. There are hardly any Drives, CDs used for day to day operations. Hence as far as the e-waste is concerned hardly any waste is generated during the day to day operations. In addition to this the College authorities have already finalized Authorized e-Waste management agency to dispose of the old equipment. The Agency is on the panel of Maharashtra Pollution Control Board.

## USAGE OF PUBLIC TRANSPORT



### Public Transport – the institute provides bus services



#### प्रतिज्ञा

हम सत्यनिष्ठा से प्रतिज्ञा करते हैं कि अपने सभी कार्यों में पेट्रोलियम उत्पादों के संरक्षण हेतु सतत प्रयासरत रहेंगे, ताकि देश की प्रगति के लिए आवश्यक इन सीमित संसाधनों की आपूर्ति अधिक समय तक सम्भव हो सके। आदर्श नागरिक होने के नाते हम लोगों को पेट्रोलियम पदार्थों के व्यर्थ उपयोग से बचने तथा पर्यावरण संरक्षण हेतु स्वच्छ ईंधन का प्रयोग करने के लिए जागरूक करेंगे।



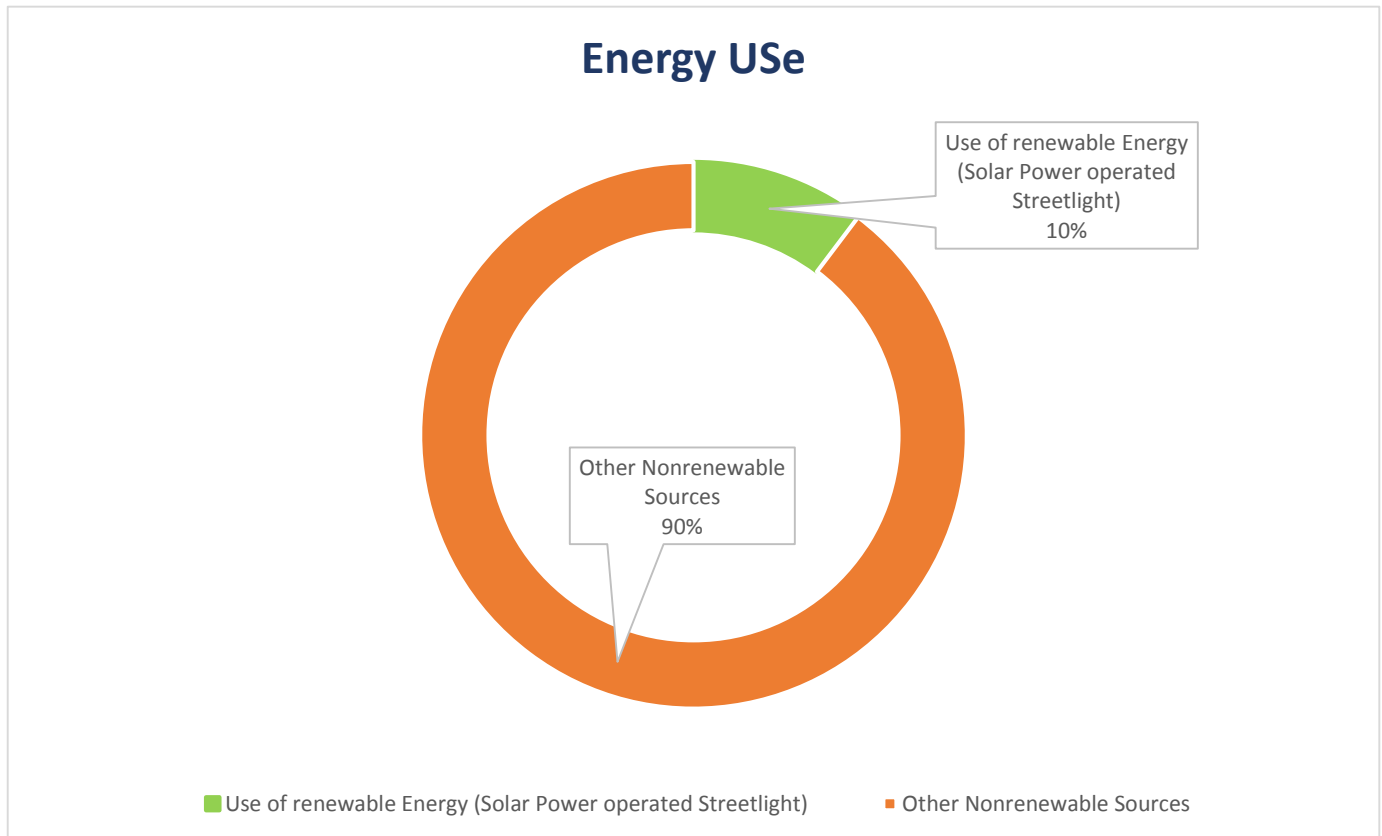
Chapter No. 7: **Best Practices & Activities**

**Percentage of Annual Lighting power requirement met through LED Bulbs (Current Year Data) = 100 %**

Lighting System		Watt	Total Watts
LED Tubes	30	20	600
LED Fittings	90	12	1080

**Percentage of Annual power requirement met through Renewable Energy (Current Year Data) = 10 %**

Use of renewable Energy (Solar Power operated Streetlight)	2560 KWH
Other Nonrenewable Sources	22323 KWH



## Current saving methods adopted in the college

### \*Turn off electrical equipment when not in use

This indicates that Students & Staff concerned are actively involved in green activities in the Campus.

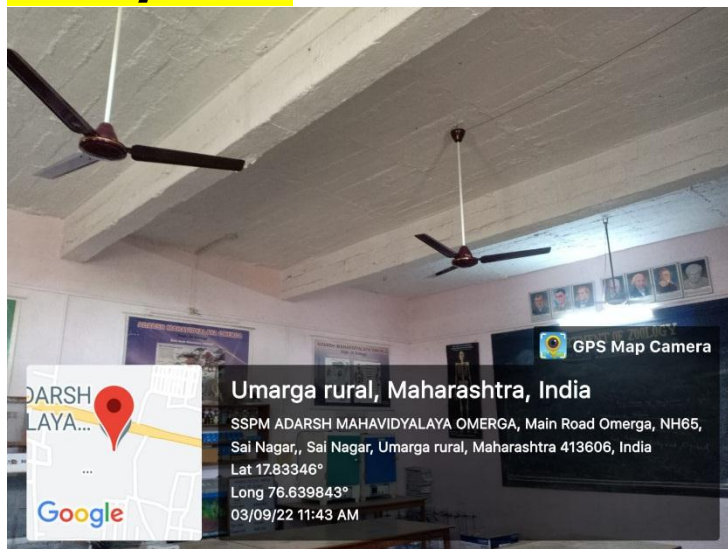


### Observations:

Use of energy efficient light-emitting diode (LED) bulbs instead of Incandescent and CFL bulbs

\*Use computers and electronic equipment in power saving mode.

### Fan System:



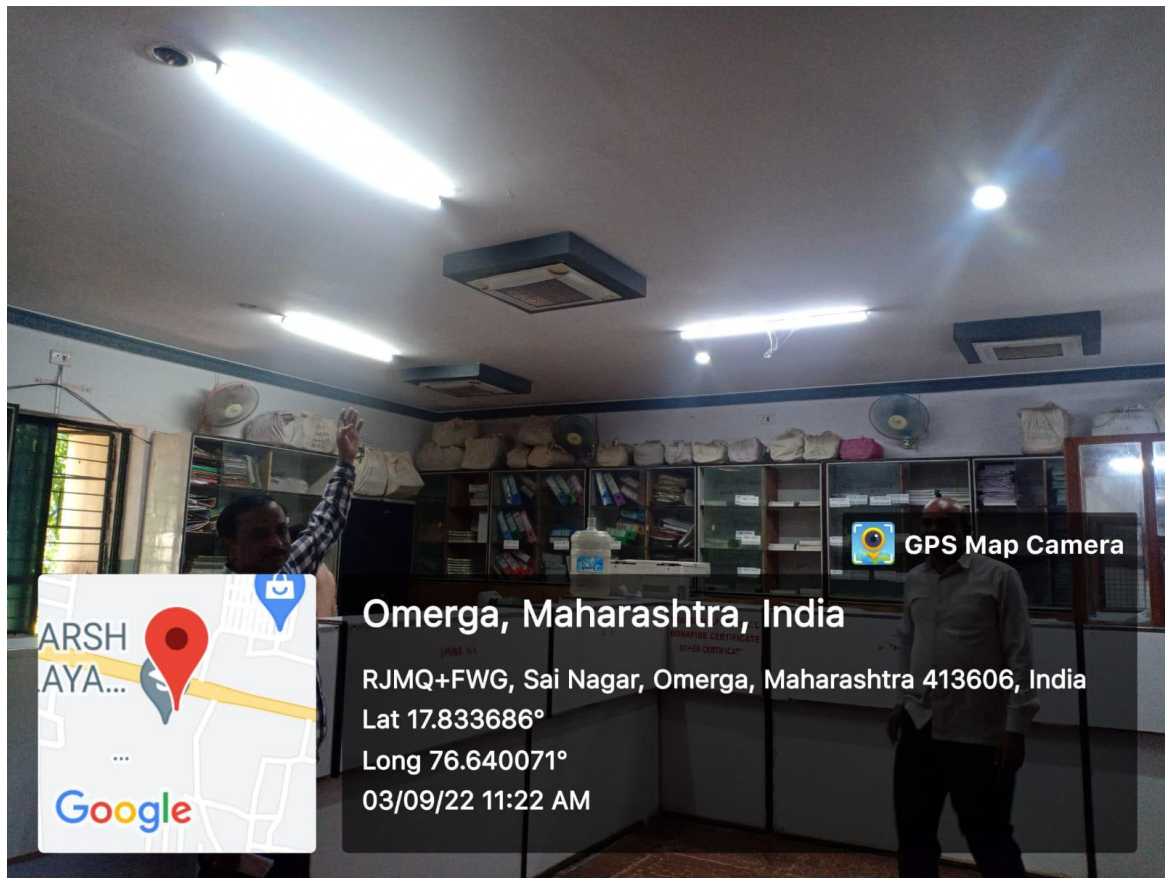
**Observations:** Existing fans consumes 75W

**Suggestions** Install BLDC Five Star Efficient Fan System.

Energy efficient electrical equipment especially fans

can be replaced against inefficient & old ones.

**Picture showing the usage of LED bulbs and tubes**



## **General Recommendations:**

### **Conduct Trainings and Workshops:**

Environmental education through systematic environmental management approach

1. Efficient use of Energy & resources.
2. Efficient use of LPG
3. Sustainable Development
4. Workshop on eco-friendly carry bags

### **Awareness Project on Conservation of Electricity & Fuel**

Several significant and fruitful awareness programs both students and staff of the Campus are arranged every year in the campus.

Reflections from students are Evident how effective such awareness programs conducted in the campus. Major programs conducted in the campus during the last four years.

**Campaigns:** Nature camps, field trips and some of these activities are year round programs and others are regular year wiser semester wise or any other stipulated time bound programs.

- 1. World Environment day 5th June**
- 2. National Energy Conservation week 14<sup>th</sup>-20<sup>th</sup> Dec**
- 3. Earth Day 22<sup>nd</sup> April**
- 4. 'SAKSHAM MONTH' by PCRA**
- 5. Single use Plastic free Campus**



## GREEN CAMPUS INITIATIVES

Green Landscaping with Trees and Plants – the campus is beautifully landscaped and has received appreciation in form of awards and certificates.

नगर परिषद उमरगा ता. उमरगा जि. उस्मानाबाद

श्री. आतिश खव्खुम मुन्शी  
नगर परिषद सदस्य, उमरगा

दि. 30 08 2021

### प्रमाणपत्र

प्रमाणित करण्यात येते की, श्रमजीवो शिक्षण प्रसारक संस्थेचे आदर्श महाविद्यालय, उमरगा यांनी अनेक राष्ट्रीय, सामाजिक, उपक्रमात सक्रीय सहभाग घेतला आहे. यात प्रामुख्याने वृक्षारोपन, पर्यावरण संरक्षण, जाणीव जागृती कार्यक्रम पदयात्रा, इत्यादी उपक्रम त्यांनी राबविले आहेत. तसेच महाविद्यालयाच्या परिसरात जवळपास 1000 पेक्षा जास्त वृक्षांचे रोपन करून त्यांचे संगोपन केले आहे.

सबब प्रमाणपत्र देण्यात येत आहे.

  
नगरसेवक  
श्री. आतिश खव्खुम मुन्शी  
नगर परिषद सदस्य, उमरगा



## Faunal Diversity in Campus:





## Media Report

Sakal News Papers

