

Dombivli Shikshan Prasarak Mandal's

K. V. Pendharkar College of Arts, Scirnce and Commerce (Autonomous) Dombivli
421203

Green Audit Report 2022-2023



INDEX

Sr. No.	Content	Page No.
1	About the College	3
2	Introduction	4
3	Objectives and Vision	4-5
4	Our Mission	5
5	Methodology	5
6	Summary And Conclusion	8
7	Recommendation	8



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1. ABOUT THE COLLEGE

Dombivli Shikshan Prasarak Mandal's K. V. Pendharkar College is one of the prestigious, oldest and premier institute of Dombivli (Maharashtra). K. V. Pendharkar College of Arts, Science and Commerce (Autonomous) Dombivli (E), established on 11th July 1979, is one of the leading institutions imparting higher education in the fields of Arts, Science, Commerce and Management. The College is managed by Dombivli Shikshan Prasarak Mandal (R), which was established in 1972. It is one of the premier Colleges established to impart and provide in the field of higher education for the deserving candidates and prove to be a milestone in the part of progress. The College is affiliated with the University of Mumbai and is accredited by National Assessment and Accrediation Council (NAAC) with "A" Grade.

The Mandal is and perennially will remain indebted to the support of many eminent personalities and industrialists such as Late Shri. Gajanan Rao Pendharkar, the Chaiman of Vicco Laboratories who munificently gave a founding donation for the establishment of K. V. Pendharkar College. The College has been named after his father Late Shri. Keshav Vishnu Pendharkar as a gratitude of unstinting support received from Late Shri. Gajanan Rao Pendharkar. The land to set up the College was allotted by MIDC in 1972. Though, the Mandal had the possession of the land, it took three years to formally start the College. In those times, establishment of a College required permission of the University of Pune and in 1977-1978, Dombivli came under the jurisdiction of the University of Pune. This resulted in the delay of establishment of the College. Therefore, the Mandal decided to start Sister Nivedita School first. The school was started in the rental premises at Dombivli East and West, simultaneously. After receiving necessary approvals, the College began its operations at Bajiprabhu Chowk in Dombivli East. Later, the management of the Mandal shifted the College to Khandelwal tin shade spread over 1000 sq. Ft. at Plot No. S. P. 4 in MIDC, Dombivli East.

The K. V. Pendharkar College started functioning from June 1979. The College was also given permanent affiliation by the University of Mumbai on 30th August 1980. Right from its inception, the College has been offering quality education to its students, in accordance with the rules laid down by the University of Mumbai, Government of Maharashtra and University Grants Commission. Of late, the institution underwent the third cycle of assessment by the NAAC (National Assessment and Accrediation Council) and is reaccredited with the coveted 'A Grade' (3.14 CGPA) by the Council in 2016-2017 (2(f), 12(b) of UGC). Today, the College offers Under Graduate, Post Graduate as well as Ph. D. programmes across Arts, Commerce and Science streams.



2. INTRODUCTION

Green Audit is a process of systematic identification, qualification, recording, essential land analysis of components of environmental diversity of institute. It aims to analyse environmental practices within and outside of the concerned place, which will have an impact on the ecofriendly atmosphere. Green audit is a valuable means for a College to determine how and where they are using the most energy or water or other resources; the College can then consider how to implement changes and make savings. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of Green impact on campus. If self enquiry is a natural and necessary outgrowth of quality education, it could also be stated that institutional self enquiry is a natural and necessary outgrowth of a quality education institution. Thus it is imperative that the college evaluate its own contributions toward a sustainable future. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more prevalent. The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises. On this background it becomes essential to adopt the system of the Green campus for the institutes which will lead for sustainable development and at the same time reduce the sizable amount of atmospheric CO₂ from the environment. The National Assessment and Accrediation Council, New Delhi (NAAC) has made it mandatory that all Higher Educational Institutions should submit an annual Green Audit Report. Moreover, it is part of Corporate Social responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through carbon footprint reduction measures.

India is a rich heritage of ornamental /medicinal plants which were native's gift to man-kind. Since the human race is started on the earth, it is needs on the plants for the requirements have become essential in his life. Therefore, different plant namely *Delonix regia*, *Plualthia longifolia*, *Azadirachhta indica*, *Peltophorum pterocarpum*, *Mimusups elengi* are present in KVP premise.

3. OBJECTIVES

In recent time, the Green Audit of an institution has been becoming a Paramount important for self-assessment of the institution which reflects the role of the institution in mitigating the present environmental problems. The College has been putting efforts to keep our environment clean since its inception. Therefore, the purpose of the present green audit is to identify, quantify, describe and prioritize framework of Environment



Sustainability in compliances with the applicable regulations, policies and standards,
The main objectives of carrying out Green Audit are -

4

- To document the floral and faunal diversity of the College.
- To map the Geographical Location of the College.
- To record the meteorological parameter of Dombivli where College is situated.
- To document the ambient environmental condition of weather, air, water and noise of the College.
- To document the waste disposal system.
- To estimate the Energy requirements of the College.
- To report the expenditure on green initiatives during the 2 years.

4. VISION

- To provide facilities for higher education.
- To develop the spirit of Enquiry and a scientific Interdisciplinary Approach.
- To create sensitivity to contemporary Socio-political and National issues.
- To promote Awareness of National Heritage.
- To inculcate respect for Human values.

5. OUR MISSION

- Upliftment of Rural students through technical education.
- Respond to local societal needs by developing selected 'targeted research projects'.
- Quality training programs in need based modern technology.
- To maintain state-of-the-art infrastructure in laboratories.

6. METHODOLOGY

The purpose of the green audit of K. V. Pendharkar College Dombivli is to ensure that the practices followed in the campus are in accordance with the Green Policy of the country. The methodology includes collection of data, physical inspection of the



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campus, observation and review of the documentation and data analysis.

Table 1. List of plant or flora of Tree/shrub/herb/climber found in DSPM's K. V. Pendharkar College (Autonomous) premises.

Sr. no.	Botanical Name	Common Name	Family	Habit	Total no.
1	<i>Plumeria alba</i>	Chapha	Apocynaceae	Tree	02
2	<i>Polyalthia longifolia</i>	Ashok	Annonaceae	Tree	16
3	<i>Ficus benghalensis</i>	Banyan	Moraceae	Tree	01
4	<i>Mimusops elengi</i>	Bakul	Sapotaceae	Tree	01
5	<i>Ixora coccinea</i>	Scarlet jungle flame	Rubiaceae	Shrub	05
6	<i>Musa paradisiaca</i>	Banana	Musaceae	Tree	01
7	<i>Azadirachhta indica</i>	Neem	Meliaceae	Tree	02
8	<i>Tabernemontana coronaria</i>	Tagar	Apocynaceae	Shrub	More
9	<i>Duranta plumeri</i>	Golden dew drops	Verbenaceae	Shrub	More
10	<i>Delonix regia</i>	Gulmohar	Caesalpinae	Tree	06
11	<i>Peltophorum pterocarpum</i>	Copper tree	Caesalpinae	Tree	03
12	<i>Thuja orientalis</i>	Oriental arborvitae	Cupressaceae	Shrub	05
13	<i>Anthocephalus kadamba</i>	Kadamb	Rubiaceae	Tree	02
14	<i>Bauhinia racemosa</i>	Apta	Caesalpinae	Tree	02
15	<i>Syzygium cumini</i>	Malabar plum	Myrtaceae	Tree	02
16	<i>Hibiscus rosa sinensis</i>	Shoe flower	Malvaceae	Shrub	More



17	<i>Ceiba pentandra</i>	Kapok	Malvaceae	Tree	02
18	<i>Cocos nucifera</i>	Coconut	Palmae	Tree	More
19	<i>Alstonia scholaris</i>	Blackboard tree	Apocynaceae	Shrub	01
20	<i>Sanseveria sp.</i>	snake plant	Sansevieriaceae	Herb	01
21	<i>Aloe vera</i>	Korphad	Liliaceae	Herb	01
22	<i>Rosa indica</i>	Rose	Rosaceae	Shrub	04
23	<i>Portulaca oleracea</i>	Ghol	Portulocaceae	Herb	More
24	<i>Acalypha sp.</i>	Indian Acalypha	Euphorbiaceae	Shrub	04
25	<i>Catharanthus roseus</i>	Periwinkle	Apocynaceae	Herb	02
26	<i>Ricinus communis</i>	Castor	Euphorbiaceae	Shrub	03
27	<i>Ocimum sanctum</i>	Tulsi	Labiatae	Shrub	05
28	<i>Opuntia sp.</i>	Prickly pear	Cactaceae	Shrub	01
29	<i>Cynadon dactylon</i>	Doob grass	Poaceae	Herb	More
30	<i>Vetiveria zizanioides</i>	Vala	Poaceae	Herb	04
31	<i>Cymbopogon citratus</i>	Lemon grass	Poaceae	Herb	08
32	<i>Albizia lebbeck</i>	Shirish	Mimosae	Tree	01
33	<i>Araucaria araucana</i>	Monkey puzzles tree	Araucariaceae	Tree	03
34	<i>Mangifera indica</i>	Mango	Anacardiaceae	Tree	03
35	<i>Lantana camara</i>	Ghaneri	Verbenaceae	Shrub	01
36	<i>Tridax procumbens</i>	Coatbuttons	Asteraceae	Herb	More
37	<i>Asparagus racemosus</i>	Shatavari	Aparagaceae	Herb	01
38	<i>Adhenium obesum</i>	Desert rose	Apocynaceae	Shrub	01
39	<i>Tecoma capensis</i>	Cape honeysuckle	Bignoniaceae	Shrub	02
40	<i>Centella asiatica</i>	Bramhi	Umbelliferae	Herb	More



41	<i>Ipomoea palmata</i>	Garvel	Convolvulaceae	Climber	05
42	<i>Terminalia cattapa</i>	Jangli badam	Combretaceae	Tree	04
43	<i>Dracaena reflexa</i>	Female dragon	Liliaceae	Shrub	01
44	<i>Hymenocallis littoralis</i>	Spider lily	Amaryllidaceae	Herb	02

7. SUMMARY AND CONCLUSION

Green Audit is the most efficient way to identify the strength and weakness of environmental sustainable practices and to find a way to solve problem. Green Audit is one kind of professional approach towards a responsible way in utilizing economic, financial, social and environmental resources. Green audits could Add value to the management approaches being taken by the College. It is a way of identifying, evaluating and managing environmental risks (known and unknown). There is scope for further improvement, particularly in relation to waste, energy and water management. The College in recent years consider the environmental impacts of most of its actions and makes a concerted efforts to act in an environmentally responsible manner. Even though the college does perform fairly well, the recommendations in this report highlight many ways in which the College can work to improve its actions and becomes a more sustainable institution. Green audit biodiversity showed about more than 40 families reported in institution campus. As per the record there was variation in plants among trees, shrub, herbs, climbers plants reduce environmental pollution. Therefore green audit was made and reported record in Table 1.

8. RECOMMENDATIONS

- Name all the trees and plants with its common name and scientific name.
- Declare the campus plastic free and implement it thoroughly.
- Ensure participation of students and teachers in local environment issues.
- Adopt an environment policy for the College.
- Installation of Biogas plant and Compost units.
- Establish an e-waste collection centre in campus.
- Installation of Solar panels to generate electricity.



- Grow up flowering plants in the garden and medicinal garden and gradually develop it as a nursery.

- Installation of Incinerators to dispose sanitary napkins.

- Installation of rain water harverst methods on roof top and ground.

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IQAC coordinator

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DSPM'S K. V. Pendharkar College
Dombivli



I/C Principal

DSPM's K.V. Pendharkar College
Dombivli



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Report on Energy audit of
Dombivli Shikshan Prasarak Mandal's K.V. Pendharkar
College of Arts Science & Commerce (Autonomous),
Dombivli (E)

2022-23

ACKNOWLEDGEMENT

The Energy Audit Committee of Dombivli Shikshan Prasarak Mandal's K.V. Pendharkar College of Arts, Commerce, and Science College, Dombivli (East) Campus, carried out an extensive energy audit with the key objective of evaluating the campus's energy efficiency. The main focus was to identify potential areas for reducing energy consumption while simultaneously enhancing comfort, health, and safety within the premises. By conducting a comprehensive survey, the audit sought to gather data from all classrooms, laboratories, and rooms to gain insights into the energy consumption patterns.

During the survey, meticulous attention was given to various factors, such as the number of lights, fans, air conditioners, computers, and other electrical appliances present in each room. This thorough assessment aimed to determine the precise contributions of each appliance to the overall electricity usage across the campus. By analysing this data, the Energy Audit Committee intended to pinpoint energy-intensive areas that require immediate attention and propose effective energy-saving measures.

The audit also delved into evaluating the efficiency of existing appliances used in daily processes. The goal was to identify the most energy-efficient appliances that align with the college's sustainability objectives. Based on the findings, the committee aimed to offer well-researched recommendations for optimizing energy consumption without compromising on the college's functionality and user experience.

Overall, the comprehensive energy audit carried out by the Energy Audit Committee plays a vital role in promoting sustainable practices and fostering an environmentally conscious approach within the campus community. Through the implementation of the suggested measures, the college can potentially reduce its carbon footprint and set an inspiring example for other educational institutions to follow suit in their pursuit of energy efficiency and environmental stewardship.

Team

1. Mr. Suyash Agnihotri (In-Charge)
2. Mr. Aakash Gangavane (Member)
3. Mr. Avinash Dongare (Member)
4. Ms. Aarti Nandapure (Member)

INDEX

- About the college
- Introduction of Energy Audit
- Objectives
- Methodology
- Findings
- Conclusion and recommendations

About the College

The K. V. Pendharkar college started functioning from June 1979. The college was also given permanent affiliation by the University of Mumbai on 30th August 1980. Right from its inception, the college has been offering quality education to its students, in accordance with the rules laid down by the University of Mumbai, Government of Maharashtra and University Grants Commission. Of late, the institution underwent the third cycle of assessment by the NAAC (National Assessment and Accreditation Council) and is reaccredited with the coveted 'A Grade' (3.14 CGPA) by the council in 2016-17 (2(f), 12(b) of UGC) Today, the college offers Under Graduate, Post Graduate as well as Ph.D. programmes across Art, Commerce and Science streams.

Infrastructure:

- 46 airy & spacious classrooms
- 26 well-ventilated and airy laboratories
- 02 air-conditioned conference halls
- 01 large auditorium
- Separate boy's & girl's common room
- Gymkhana
- Canteen facility
- 01 Colossal Library
- NCC & NSS offices
- Separate Aided & Unaided Offices

Introduction to Energy Audit

Availability and utilization of energy drives the growth of economy and advancement of any country and thus, the demand of energy is increasing day by day. The worldwide mounting energy crisis with galloping cost hike, concern for environmental protection and open market competitive economy possesses serious challenge to Indian College to survive and grow.

One of the easier available options for survival is 'Energy Conservation' thereby saving environment and cost reduction through strategic energy management. It also gives a positive orientation to energy cost reduction, preventive maintenance and quality control programs. This is the translation of conservation ideas into reality by blending techno economically feasible solutions within a specified time frame.

Energy conservation is a worldwide objective. The energy policy of the Government of India calls for conservation of energy. With the enactment of Energy Conservation Act 2001 amongst others has emphasized upon the power of the appropriate Govt. to enforce efficient use of energy and its conservation.

The study could identify concerned problem areas, barriers towards maintaining right use of available facilities and come out with cost effective solutions. It also recommends cost effective and fast pay back solutions for performance improvement of all the systems.

Energy audit is an effective tool in identifying and perusing a comprehensive energy management program. A careful audit of any type will give the organization a plan with which it can effectively manage the organization energy system at minimum energy cost. In this paper a detailed study has been made to reduce the electrical energy consumption in the campus of Dombivli Shikshan Prasarak Mandal's K.V.Pendharkar college of Arts, Commerce and Science College, Dombivli(E). It highlights the amount of energy savings, thereby reducing the energy crisis considerably.

OBJECTIVES

The objective of the study is to assess overall efficiency of the various systems and defined specific energy consumption of the academic building and make recommendations about potential energy saving opportunities, based on the observation of energy audit.

Hence the detail objectives are as under,

1. To calculate the energy consumption
2. To evaluate the performance of the equipment
3. To find out the energy saving opportunities
4. To quantify the total energy savings
5. To find out the ways to achieve energy efficiency

METHODOLOGY

During the audit, energy conservation and saving opportunities are identified through thorough rounds and measurements of the facility. This involves assessing various aspects such as lighting systems, HVAC (heating, ventilation, and air conditioning) systems, appliances, and other energy-consuming devices. The aim is to identify areas where energy can be conserved and inefficiencies can be addressed.

The audit team analyses the data collected from each classroom, laboratory, and room to determine the electricity consumption patterns and the contribution of different components, such as lights, fans, air conditioners, and computers, to the overall energy usage. By identifying the main contributors to energy consumption, the team can recommend specific measures to optimize energy usage, reduce wastage, and improve energy efficiency.

Overall, the energy audit is a comprehensive process that involves a detailed assessment of the facility's energy consumption, analyzing energy bills, and identifying opportunities for energy conservation and efficiency improvement. The ultimate goal is to reduce energy usage while maintaining or enhancing comfort, health, and safety within the campus.

System Studied During Energy Audit:

1. Counting Number of Equipment
2. Study of energy utilization requirement.
3. Split air conditioner operation.
4. Energy saving opportunities is identified.

FINDINGS:

Sr. No.	Item Name	Wattage	Total No. of Item	Total Wattage (In Watt)	Daily use (In Hrs.)	Daily power consumption (Watt . Hr)
1	Fans	70	560	39200	6	235200
2	Tubes (40 Watt)	40	841	33640	6	201840
	T5 (28 Watt)	28	132	3696	6	22176
	LED Tubes	20	58	1160	6	6960
3	Air Conditioner (AC)	1200	40	48000	3	144000
4	Bulbs	100	4	400	0.5	200
5	Ovens	2000	6	12000	0.5	6000
6	Printers	30	36	1080	0.5	540
7	Computers (Desktop)	90	208	18720	4	74880
8	Server	650	1	650	24	15600
9	Water Coolers	150	6	900	4	3600
10	Copier	450	2	900	0.5	450
11	Xerox Machine	250	2	500	0.5	250
12	ID Printers	80	2	160	0.5	80
13	Projectors	250	12	3000	0.5	1500
14	Scanners	10	6	60	0.5	30
15	Barcode Reader	10	3	30	0.5	15
16	Refrigerators	200	2	400	24	9600
17	Deep Freez	500	1	500	24	12000
Daily power consumption (Watt-hr)						734921

Daily power consumption (Kwatt-hr)

732.52

Monthly power consumption (In Kwatt-hr)

18313.025

**These figures are recorded early in academic year slight changes are expected during the year*

Sr. No.	Item Name	Wattage	Total No. of Item	Total Wattage (Watt)	Daily use (In Hrs.)	Daily power consumption (Watt . Hr)
1	Fans	70	560	39200	6	235200
2	LED Tubes	20	1011	16820	6	100920
3	Air Conditioner (AC)	1200	40	48000	3	144000
4	Bulbs	100	4	400	0.5	200
5	Ovens	2000	6	12000	0.5	6000
6	Printers	30	36	1080	0.5	540
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15	Barcode Reader	10	3	30	0.5	15
16	Refrigerators	200	2	400	24	9600
17	Deep Freez	500	1	500	24	12000
Daily power consumption (Watt-hr)						625265

Daily power consumption (Kwatt-hr)

625.27

Monthly power consumption (In Kwatt-hr)

15631.625

Reduction in Average Monthly Power Consumption by replacing 40-watt tube lights and 28 watts T5 tube lights with LED tube lights will be $(18313 - 15631 = 2682 \text{ Kwatt-hr})$

CONCLUSION & RECOMMENDATIONS

- Air conditioner shall be operated between temperature range of 23-25°C to maintain lower cooling load on compressor to save energy.
- Energy audit to be carried out by professional agency as many real time observations can be done with sophisticated instruments so that approximation can be reduced and accuracy can be increased.
- 40-watt tube lights and 28-watt T5 tube lights can be replaced by LED tube lights of 20-watts for reducing consumption.
- Awareness and Education: Conduct energy conservation awareness campaigns to educate staff and students about the importance of energy efficiency. Promote energy-saving habits like turning off lights, unplugging chargers, and using natural ventilation when appropriate.
- Renewable Energy Sources: Explore the possibility of installing renewable energy systems such as solar panels or wind turbines to generate clean energy on-site. This can offset some of the energy consumption and reduce reliance on grid electricity.



I/C Principal
DSPM's K.V. Pendharkar College
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Dombivli

**Dombivli Shikshan Prasarak Mandal's
K.V. Pendharkar College of Arts, Science and
Commerce, Dombivli (Autonomous)**

ENVIRONMENT AUDIT REPORT



TABLE OF CONTENTS

1.	INTRODUCTION:.....	3
1.1.	NEED FOR ENVIRONMENT AUDITING.....	3
1.2.	GOALS OF ENVIRONMENT AUDIT	3
1.3.	OBJECTIVES OF ENVIRONMENT AUDIT	4
1.4.	BENEFITS OF ENVIRONMENT AUDIT TO EDUCATIONAL INSTITUTIONS	4
2.	OBJECTIVE AND SCOPE	4
3.	EXECUTIVE SUMMARY	4
4.	K.V.PENDHARKAR COLLEGE INFRASTRUCTURE	5
	DETAILS OF TREES AND PLANTS IN CAMPUS	5
	HEALTH CENTER	5
	SEWAGE TREATMENT PLANT	6
	RO PLANT	7
	RAINWATER HARVESTING	7
	VIEWS OF GREENERY	8
5.	WASTE MANAGEMENT	8
	E-WASTE MANAGEMENT	10
6.	WATER MANAGEMENT	10
	SOURCES OF WATER	10
7.	SUMMARY	10
8.	CONCLUSION	10
9.	RECOMMENDATIONS	11

1. INTRODUCTION:

The environment audit aims to analyse environmental practices within and outside the college campuses, which will have an impact on the eco-friendly atmosphere. Environment audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of the college environment. It was initiated with the motive of inspecting the effort within the institutions whose exercises can cause threat to the health of inhabitants and the environment. Through the environment audit, a direction as to how to improve the structure of the environment and there are several factors that have determined the growth of carried out the environment audit.

1.1. NEED FOR ENVIRONMENT AUDITING

Environment auditing is the process of identifying and determining whether institutions' practices are eco-friendly and sustainable. Traditionally, we are good and efficient users of natural resources. But over the period of time excess use of resources like water become habitual for everyone especially, in common areas. Now, it is necessary to check Whether we are handling resources carefully? Environment audit regulates all such practices and gives an efficient way of natural resource utilisation. In the era of climate change and resource depletion it is necessary to verify the processes and convert it into a green and clean one. Environment audit provides an approach for it. It also increases overall consciousness among the people working in institutions towards an environment.

1.2. GOALS OF ENVIRONMENT AUDIT

University has conducted an environment audit with specific goals as:

1. Identification and documentation of environment practices followed by college.
2. Identify strength and weakness in environment practices.
3. Analyse and suggest solutions 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 optimised 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 issues before they become a problem.

1.3. OBJECTIVES OF ENVIRONMENT AUDIT

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

1.4. BENEFITS OF ENVIRONMENT AUDIT TO EDUCATIONAL INSTITUTIONS

There are many advantages of environment audit to an Educational Institute:

1. It would help to protect the environment in and around the campus.
2. Recognize the cost saving methods through waste minimization and energy conservation.
3. Empower the organisation to frame a better environmental performance.
4. It portrays a good image of the institution through its clean and green campus.

Finally, it will help to build a positive impression for through green initiatives the upcoming NAAC visit.

2. OBJECTIVE AND SCOPE

The broad aims/benefits of the eco-auditing system would be

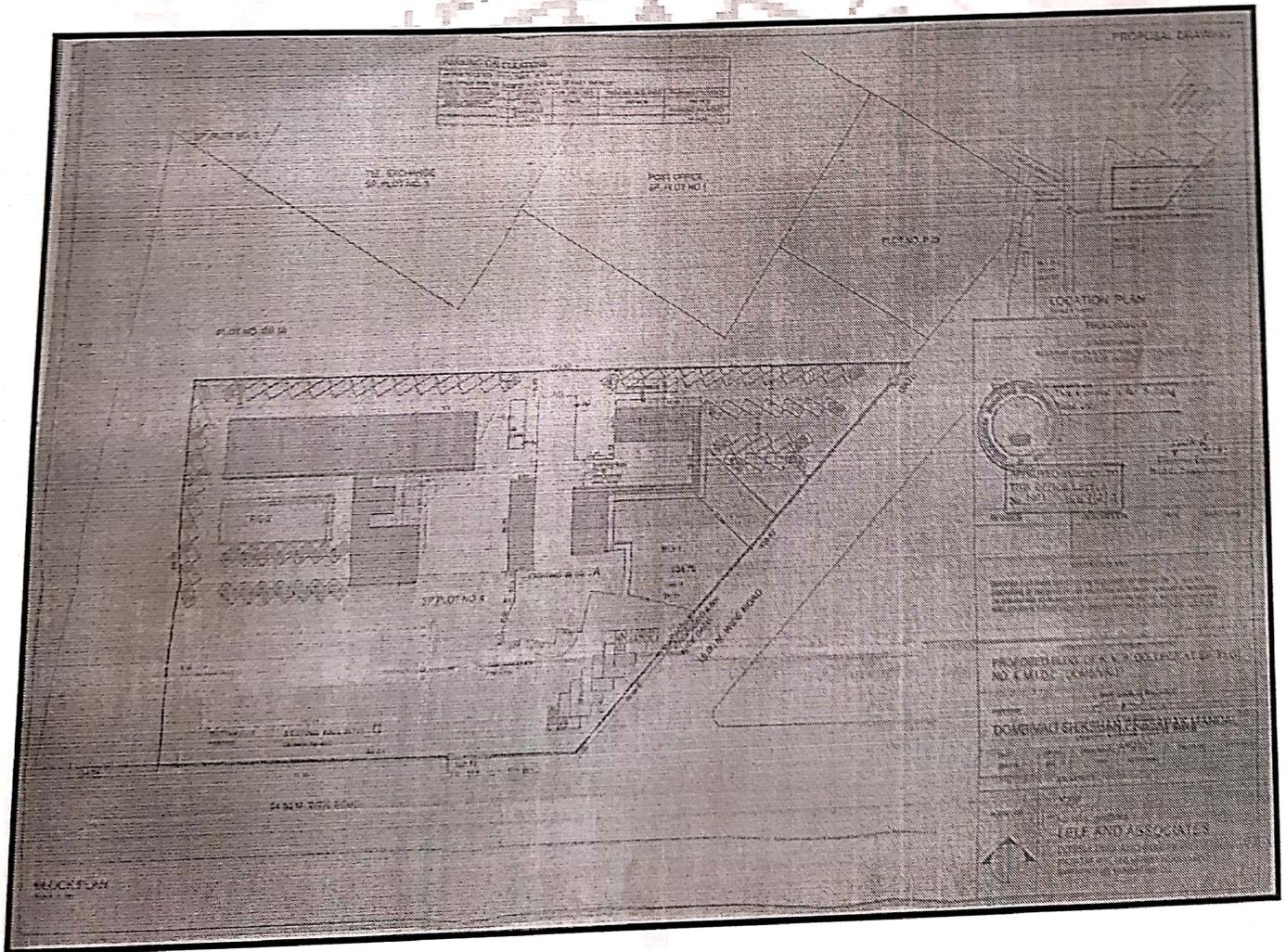
- Environmental education through systematic environmental management approach
- Improving environmental standards
- Benchmarking for environmental protection initiatives
- Sustainable use of natural resources in the campus.
- Financial savings through a reduction in resource use
- Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the College campus and its environment
- Enhancement of College profile
- Developing an environmental ethic and value systems in young people

3. EXECUTIVE SUMMARY

An environmental audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. This audit report contains observations and recommendations for improvement of environmental consciousness.

4. INFRASTRUCTURE OF K.V. PENDHARKAR COLLEGE OF ARTS SCIENCE AND COMMERCE (AUTONOMOUS), DOMBIVLI:

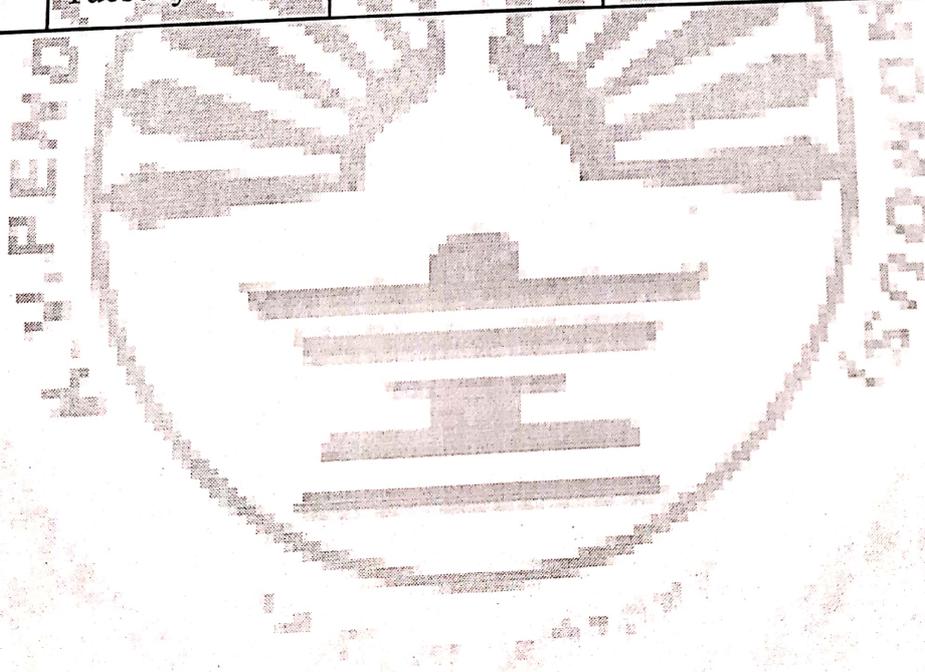
Layout plan



Environment audit	
Window glass see through	Classroom and lab windows are covered (Some classrooms are covered)
Solid waste classification	Available
Organic waste composting	Not identified.
Green asset treats	Not identified.
Classified waste collection bins	No separate bins are provided.
Rainwater management.	Not complied, however it is proposed to take up soon.
RO	Compiled the data and represented below in Table 2
Water conservation	Partially compiled, need organised harvesting plan.
Battery management	Not complied. As per the briefing, since the proposal is capital intensive, the same is expected to be budgeted in the coming academic year.
LPG Gas storage and utilisation.	Compiled the data and represented below in Table 2
HACCP compliance	The college remains in operational partially, hence it is said that the action would be taken soon after commencement of regular classes.
Utility Management	Needs budgeting.
Food waste	It is briefed that it is not in operation as the canteen/mess is not in operation. But the same has been planned.
Indoor Air Quality	Need to be addressed once college starts.
Fire safety devices	In place with information on its refill and use. (Table 2)

Table No. 1 Noise Level in College Campus(Using Mobile app-Sound Meter):

Date	Day	Morning (7:00 am)	Afternoon (12:30 pm)	Evening (5:00 pm)
06/05/2023	Saturday	59.00	73.10	67.50
08/05/2023	Monday	57.00	59.00	66.00
09/05/2023	Tuesday	63.40	72.00	69.00
10/05/2023	Wednesday	60.30	63.10	66.80
11/05/2023	Thursday	61.10	60.80	63.80
12/05/2023	Friday	58.80	63.00	62.00
13/05/2023	Saturday	52.80	62.80	65.50
15/05/2023	Monday	58.40	60.30	66.00
17/05/2023	Tuesday	53.80	57.00	66.80



RO PLANT:

RO plant is provided inside the campus to supply water to the entire campus.



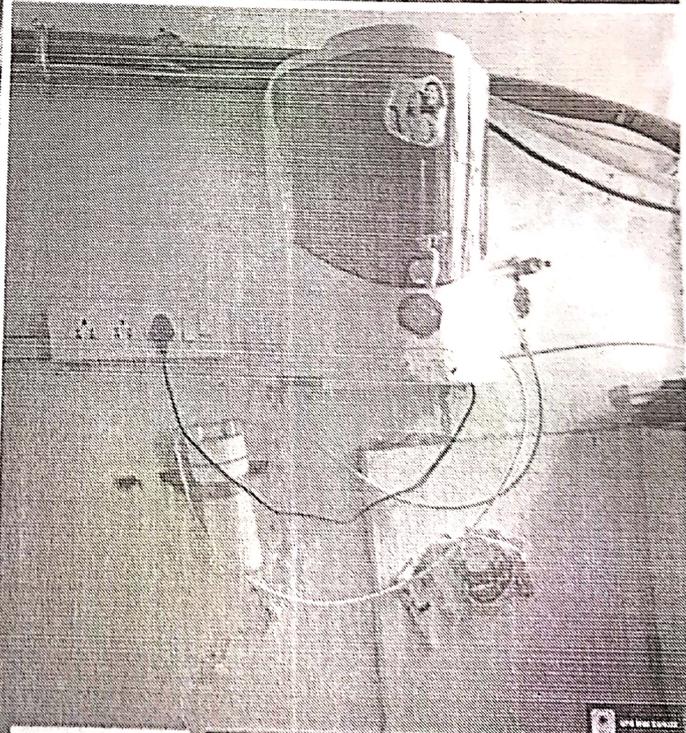
Dombivli, Maharashtra, India
K.V.Pendharkar College, Kalyan Rd, Azda Gaon, Tata Power Company Limited, Dombivli East, Dombivli, Maharashtra 421203, India
Lat 19.213851°
Long 73.104913°
09/05/22 11:11 AM



Dombivli, Maharashtra, India
K.V.Pendharkar College, Kalyan Rd, Azda Gaon, Tata Power Company Limited, Dombivli East, Dombivli, Maharashtra 421203, India
Lat 19.214082°
Long 73.105165°
09/05/22 11:07 AM



Dombivli, Maharashtra, India
6473+M82 Sparrow Park, Gharda Circle, Azda Gaon, Tata Power Company Limited, Dombivli East, Dombivli, Maharashtra 421203, India
Lat 19.214255°
Long 73.103029°
09/05/22 11:32 AM

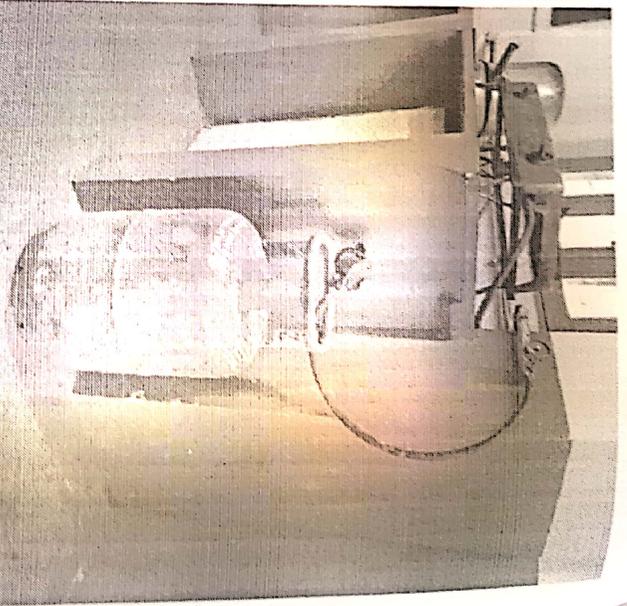


Dombivli, Maharashtra, India
K.V.Pendharkar College, Kalyan Rd, Azda Gaon, Tata Power Company Limited, Dombivli East, Dombivli, Maharashtra 421203, India
Lat 19.213919°
Long 73.105217°
09/05/22 11:45 AM

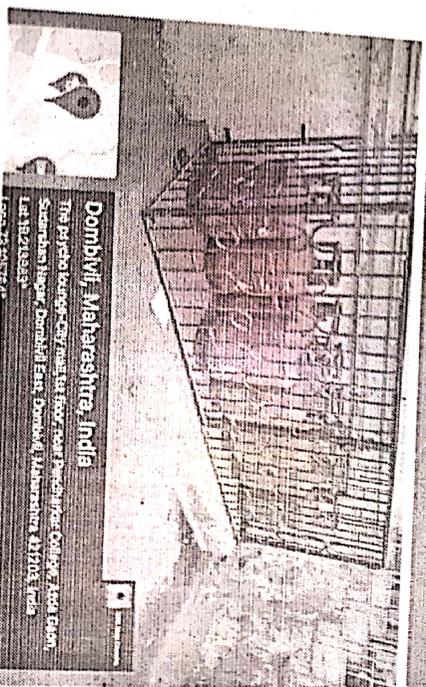
LPG Cylinders:



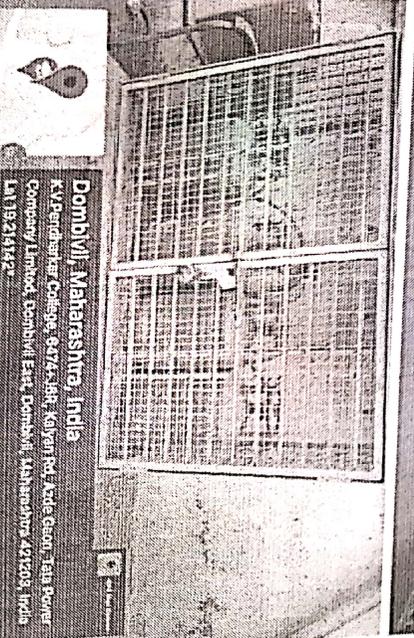

Dombivli, Maharashtra, India
K.V.Penhasakar College, 427430, Kalyan Rd, Azda Gera, 7th
Power Company/ Limbick, Dombivli East, Dombivli, Maharashtra
427203, India
Lat 19.2138837°
Long 73.5105937°
09/05/22 11:03 AM




Dombivli, Maharashtra, India
K.V.Penhasakar College, 427430, Kalyan Rd, Azda Gera, 7th
Power Company/ Limbick, Dombivli East, Dombivli, Maharashtra
427203, India
Lat 19.2138837°
Long 73.5105937°
09/05/22 11:24 AM



Dombivli, Maharashtra, India
The percha college - 427430, Kalyan Rd, Azda Gera, 7th
Power Company/ Limbick, Dombivli East, Dombivli, Maharashtra 427203, India
Lat 19.2141422°
Long 73.5437278°



Dombivli, Maharashtra, India
K.V.Penhasakar College, 427430, Kalyan Rd, Azda Gera, 7th
Power Company/ Limbick, Dombivli East, Dombivli, Maharashtra 427203, India
Lat 19.2141422°
Long 73.5437278°

VIEWS OF GREENERY



GPS Map
Camera Lite

Pendharkar College, Azde Gaon, Dombivli East, Dombivli,
Maharashtra 421203, India

Latitude

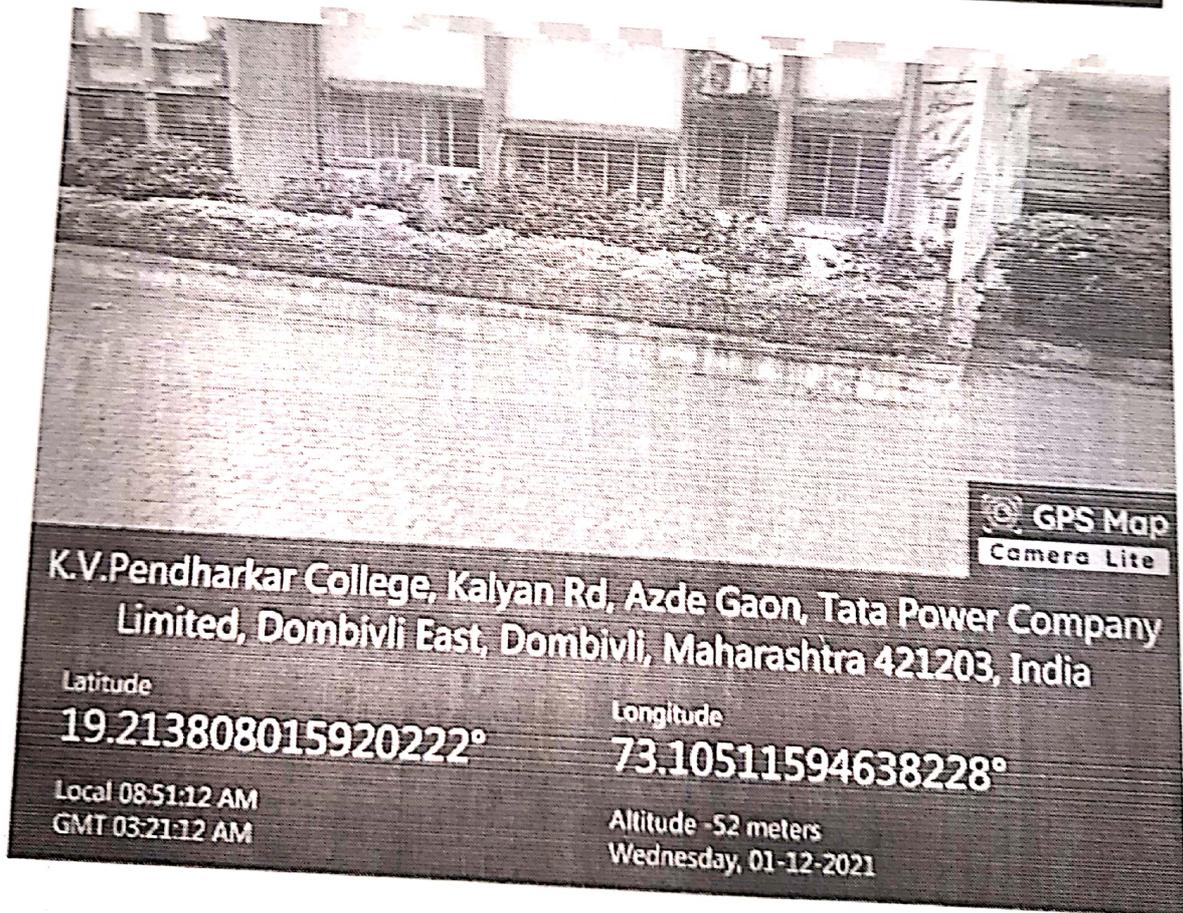
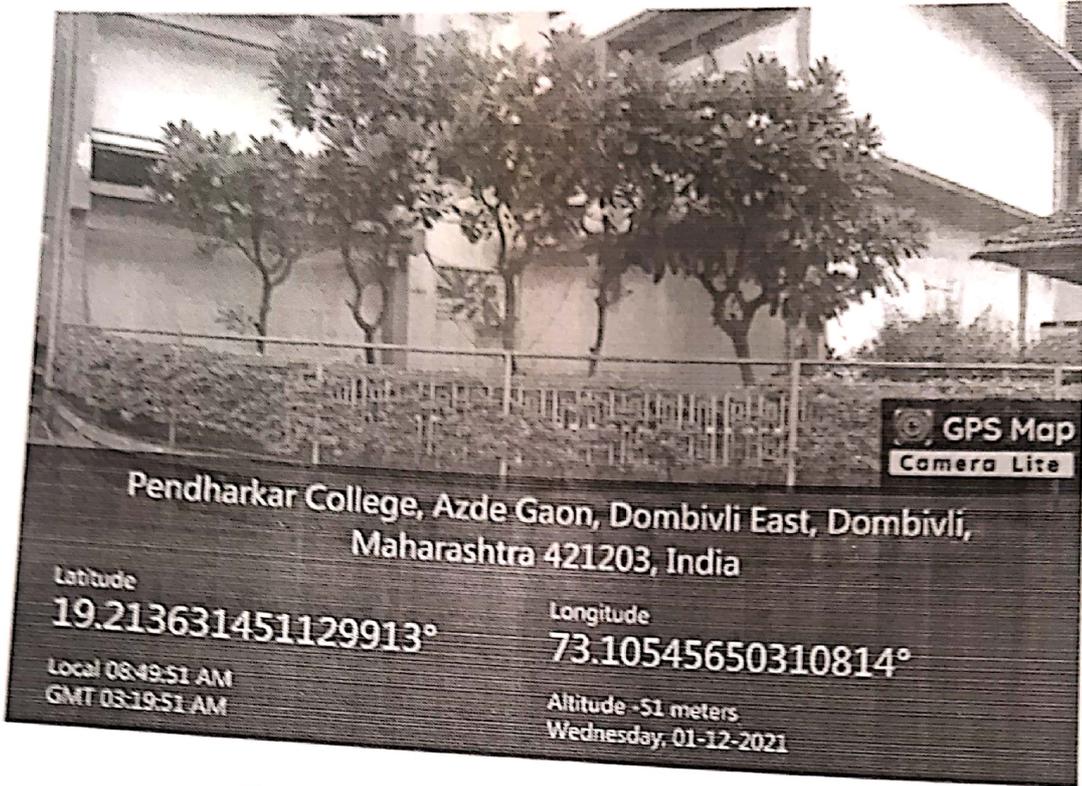
19.213631451129913°

Longitude

73.10545650310814°

Local 08:49:50 AM
GMT 03:19:50 AM

Altitude -51 meters
Wednesday, 01-12-2021



AERIAL VIEW OF GREENERY IN CAMPUS

5. WASTE MANAGEMENT

The food waste generated inside the campus is diverted to a nearby farm on a daily basis. The farm owner takes the food waste and uses it to his needs. An average of 25 kilos of food waste is generated per day.

E-WASTE MANAGEMENT

E-waste generated in the campus is disposed of in a scientific and eco-friendly manner.

6. WATER MANAGEMENT

Water conservation is a key activity as water availability affects on the development of the campus as well as on all areas of development such as farming, industries, etc. Keeping this view water conservation activity is carried out.

SOURCES OF WATER

- Open Well water
- Bore water

A Main source of water is Groundwater is extracted to fill the requirement. At present there are 5# wells out of which with 1# has open well structure whereas remaining 04 are bore wells. The college stores the water in an overhead tank.

The source of wastewater is Domestic Waste Water i.e., Sewage water. The Sewage water mainly comes from Toilets of college, hostel, kitchen and canteen. 3# a Sewage Treatment Plant was installed in the campus of each 100 KLD. Total sewage treatment plant capacity is 300 KLD.

Sr. No.	SECTION	LOCATION	QUANTITY	REMARKS
1.	RO Plant	Ground Floor	02	
		Canteen	01	
		Library	01	
		First floor	02	
		Third floor	02	
	Total:		08	

2.	Fire extinguisher	Ground floor	05	3 Fire Alarm System
		Library	02	
		Chemistry Lab	03	
		Junior IT Lab	01	
		First floor	01	
		Physics Lab	01	
		IT Lab	01	
		Botany Lab	02	
		Third floor	03	
	Total		19	
3.	Fire Safety Pipelines	College campus	04	
4.	LPG Cylinder	Zoology Lab	01	
		Botany Lab	03	
		Biotechnology Lab	03	
		Physics Lab	01	
		Ground Floor Canteen	01	
		Chemistry Lab	18	
	Total:		27	

7. SUMMARY

Environment Audit is one of the important tools to check the balance of natural resources and its judicious use.

Environment auditing is the process of identifying and determining whether institutional practices are eco-friendly and sustainable. It is a process of regular identification, quantification, documenting, reporting and monitoring of environmentally important components in a specified area. DSPM's K V Pendharkar College of Arts, Science and Commerce, (Autonomous) has conducted a "Environment Audit" in the academic year 2022-2023. The main objective to carry out an environmental audit is to check the green

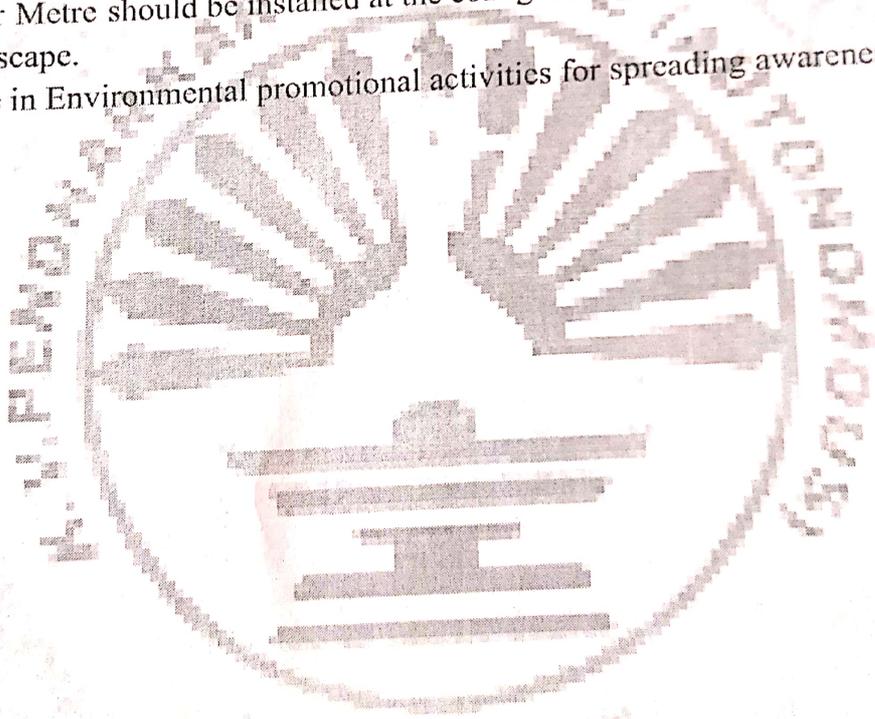
practices followed by the college and to conduct a well-defined audit report to understand whether the college is on the track of sustainable development.

8. CONCLUSION

From the Environment audit following are the recommendations, which can be taken for improvement in the Campus.

Recommendations

- Formation of Environment Policy and communicated to all faculties and other staff members.
- Environmental Monitoring i.e. (Ambient Air Quality monitoring, Stack Monitoring of DG sets, Water monitoring need to be conducted by A.P. State Pollution Control Board, approved laboratory with frequency of six months)
- Reduction in use of paper work by 'go digital' system.
- A Water Metre should be installed at the college for monitoring of water consumption for landscape.
- Increase in Environmental promotional activities for spreading awareness at campus.



[Handwritten Signature]

Principal
DSPM's K.V. Pendharkar College
Dombivli

[Handwritten Signature]

B.T. SHIRSATI
Co-ordinator
I.Q.A.C. Committee
DSPM'S K.V. Pendharkar College
Dombivli