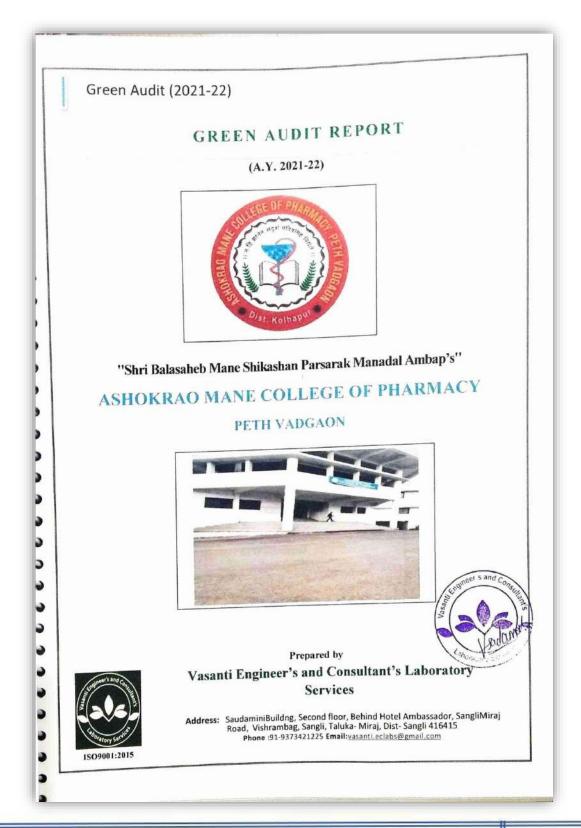


# **INDEX**

Sr. No.	Details	Page No.
1	Green Audit Report	3-25
2	Environmental Audit Report	26-58



# **GREEN AUDIT REPORT**



21



# Green Audit (2021-22)

#### CONTENTS SR NO CONTENT PAGE NO 1 Acknowledgement 2 2 Disclaimer 3 3 Concept 4 4-6 Introduction 4.1 Green audit executive summary report 6-7 5 Audit objectives & scope 5.1 Methodology Constitution of Green Audit 7-8 6 6.1 A) Good points B) Major Recommendation 7 9-11 Analysis of green practice 7.1 Water conservation A) Observations B) Recommendations 7.2 11-12 Waste Management A) Observations B) Recommendations 7.3 12-13 Air pollution A) Observations B) Recommendations 7.4 Noise pollution 13-14 A) Observations B) Recommendations 7.5 **Energy Conservation** 15 A) Observations B) Recommendations 7.6 Green area management/biodiversity survey 16-17 A) Observations B) Recommendations 8 Annexure - photographs of environment consciousness 18-29 9 Conclusion 20

References

# **Back to Index**



# 1. ACKNOWLEDGEMENT

Vasanti Engineer's and Consultant's Laboratory Services Green Audit Team thanks the management "Ashokrao Mane College of Pharmacy Peth Vadgaon" for assigning this important work of Green Audit. We appreciate the co-operation to our team for completion of study.

Our special thanks are due to:

Principal of the college - Dr. Sachinkumai Vasantrao Patil

IQAC Member- Mr. Vipul Malgonda Patil

Environment Expert at the Campus - Ms. Aishwarya Prakash Bhosale.

Green Audit coordinator & Associate Professor of College - Dr. Pournima Sachin Sankpal

For giving us necessary inputs to carry out this very vital exercise of Green Audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.





# 2. DISCLAIMER:

Vasanti Engineer's and Consultant's Laboratory Services green Audit Team has prepared this report for "Ashokrao Mane College of Pharmacy Peth Vadgaon" based on input data submitted by the representatives of College complemented with the best judgment capacity of the expert team.

It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by audit team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

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Report by Auditor:

Vasanti S Sadamate Sadamat

Supriya S Patil



2



#### 3. CONCEPT

The green audit process was began in the 1970s with an intention of identifying the activities carried out in a given institution or company. Green Audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The 'Green Audit' aims to analyse environmental practices within and outside the College campus, which will have an impact on the eco-friendly ambience. It was initiated with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit. The audit also seeks to identify possible means and methods to save investments, enhance work quality, improve health and safety of their employees, reduce liabilities and reduce the rate of environmental pollution. A continuous process of such audit might result in maintaining the quality of these aspects within the premises of any organisation.





## 4.INTRODUCTION

Ashokrao Mane college of B-Pharmacy, Pethvadgaon, established in year 2006 with a vision of empowerment of nation with knowledgeable pharmacist by promoting quality pharmaceutical education to uplift talent from rural Maharashtra.

- One Stop Institute for Pharmacy Profession (Diploma+ UG+PG+Ph.D)
- Modern State-of-art Infrastructure, Wi-fi Campus
- College bus facility for Students & Staff
- Well-furnished Digital Library with E -Books, Textbooks, Reference Books, E Journals National & International Journals.
- Govt. financial assistance schemes like EBC & Minority Scholarships, also free ships to Respective category (SC,ST,OBC,NT, and SBC) Candidates available
- Dynamic, Experienced and Dedicated Faculty
- Well-equipped Computer Centre With Broadband Internet
- Ph.D. Research Centre Affiliated to Shivaji University, Kolhapur
- Sophisticated Instrumentation Lab
- Placement Driven Programmes Like Expert Talks, Employability Trainings, Campus Placements, Mock Interview, AMCAT Assessments, Industrial Visit, Etc.
- Collaboration with different Pharma Companies
- Conductance of regular Personality Development Programs for motivating and encouraging students.
- Individual attention & Mentoring of students.
- Separate hostels facilities for girls and boys.
- Organizing/ Conducting various seminars, conferences, workshops as well as sports and cultural events.
- Winner of several academic, sports, cultural & magazine championships at university and national level.
- GPAT Scholarship available.
- Competitive exam guidance cell, special GPAT coaching.
- Medicinal Plant Garden.
- Facility to Pursue higher studies M. Pharm, Ph. D.
- Facilities like Boys Common Room, Girls Common Room, Cafeteria & sports





- Academic Quality Assurance cell for monthly review of lectures/practical's, monthly attendance.
- Well functioning NSS Unit and Anti Ragging committee.

#### Vision

Empowerment of the nation with knowledgeable pharmacists for healthy India.
 Mission

- To provide pharmaceutical education par excellence.
- · To promote community, institutional and industrial pharmacy
- · To foster and disseminate productive research in new and emerging area
- · To generate human resource in the profession of pharmacy

#### 4.1 GREEN AUDIT EXECUTIVE SUMMERY REPORT

#### 1. BRIEF ABOUT COLLEGE:

· Courses offered by the College:

Courses	About College
Name of the Institution:	"Ashokrao Mane College of Pharmacy Peth Vadgaon ""
Courses	B. Pharmacy, M. Pharmacy, Ph.D.
No of students	533
No of teachers	29
No of Non-teaching staffs	31
Total campus area	2 acres
Girls common room	1
Garbage collection bins	14
Labs	16
Class rooms	10
	Name of the Institution:  Courses No of students No of teachers No of Non-teaching staffs Total campus area Girls common room Garbage collection bins Labs

#### 4.2. ENVIRONMENTAL POLICY OF THE COLLEGE:

"Ashokrao Mane College of Pharmacy Peth Vadgaon" always believes in maintaining its own standard in matter of environment and quality consciousness. It protects its own environment by implementing its green campus initiatives and maintains pollution free green and clean campus. Environment development is its basic work with the educational policies implemented on the campus.

Being an environmental conscious College, the administration and the students of the college look after the environment carefully. Institution owns responsibility to preserve the wo

5



carried out on the campus related to the environment. Every year, during rainy season, tree plantation is carried out and carefully looked after it.

## 4.3 ENVIRONMENTAL POLICY:

College teaching and Non-teaching staff of "Ashokrao Mane College of Pharmacy Peth Vadgaon" is committed for carrying out its activity for sustainable development. This we will achieve through the following:-

- · To protect and nature the Flora and Fauna on the campus.
- · The organization observes No Vehicle Day to reduce air pollution.
- To use of Energy saving equipment's are installed like LED light, LED monitors for computers.
- To maintain green campus.
- To bring in use the 'Rain Water Harvesting' on the campus.

#### 5. OBJECTIVES AND SCOPE

The main objective of the green audit is to promote the Environment Management and Conservation in the College Campus. The purpose of the audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards.

#### 5.1 GOALS OF GREEN AUDIT

- The objective of carrying Green Audit is securing the environment and cut down the threats posed to human health.
- To avoid the interruptions in environment that are more difficult to handle and their correction requires high cost
- To suggest the best protocols for adding to sustainable development

#### 5.2 BENEFITS OF GREEN AUDIT

- Would help to prepare plan to project the environment.
- Recognize the cost saving methods through waste minimization and management.
- > Point out the prevailing and fourth coming impacts on environment.





- Ensures conformity with the applicable laws.
- Empower the organizations to frame a better environmental performance.
- It portrays a good image of an institution which helps building better relationships with the group of interested parties. Promotes the alertness for environmental guidelines and duties.

#### 6. CONSTITUTION FOR GREEN AUDIT

In order to perform green audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summarise the present status of environment management in the campus:

- > Water conservation and management
- > Waste Management
- > Noise Pollution Management
- Tree plantations
- > Bio-diversity and threatened/ endangered species
- > Preservations Energy use and conservations
- > Eco-friendly campus
- Green environment and clean campus

#### GOOD POINTS OBSERVED

- College has to install LED light, LED monitors College has conducted.
- College cleaning activity twice in day.
- College has maintained collection, transportation, Storage and disposal of Waste.
- · College has to install 'Rain Water Harvesting' on the campus.
- College faculty and students participated in different environmental awareness programme
- College has celebrated No Vehicle day.
- Environment Awareness trainings and workshop for faculty and stu

7



 Various tree plantation programs are being organized at college campus and surrounding villages through NSS unit

#### MAJOR RECOMMENDATIONS

- To establish and implement the Water Conservation and Management Plan as per Environment Protection Act 1986.
- Focus to assess the consumption of energy, electricity, water as well as disposal of liquid waste, solid waste, hazardous waste, e-waste.
- PUC certificate for all the vehicles entering the campus to be made mandatory and to be checked by security.
- College should maintain the legal register for the applicable environment related regulations and comply with this as per the requirement.
- Display boards for switching off the taps to be put on at appropriate place.
- Display boards for switching off the switch boards to be put on at appropriate place.
- > Display various slogans and pictures to protect environment.
- > Automatic Leak detection systems for conservation of water.
- > To provide dustbin facility for solid waste at appropriate place.
- To use maximum use of ICT and minimize use of paper it will help towards paperless office.
- > To give waste water treatment process before use for agriculture and gardening.
- > Display the name of plants.
- Display boards in the library and other places for awareness to maintain silence in the college.
- > To provide drip and sprinkling irrigation system to avoid waste of water
- Vermin-compost pit should be providing at campus premises.
- As an outcome efforts will be made to reduce carbon foot prints by using electrical vehicles in the campus, and green computing in the administration and examination





# 7. ANALYSIS OF GREEN PRACTICES

# 7.1 WATER CONSERVATION AND MANAGEMENT:

Water is a valuable natural resource for all living organisms. It is freely available depending on the climate and topographic features of a region. Although water is natural freely available but portable (drinkable) water is not available freely for human consumption. In our planet 70% area is covered by water but only 3% of it is fresh water. Around 1.1 billion people of the word face water crisis. Water pollution and wastage plays a vital role in water crisis. Water contaminations are taking place at an alarming rate. Drinking or using contaminated water leads to many diseases or death. That is why it is important to ensure that drinking water is safe, clean and free from bacteria and disease. It is also important to conserve protect and manage the water resources availability and usage so that it is sustainably used. Water auditing is conducted for the evaluation of facilities of raw water intake and determining the facilities for water treatment and reuse. A water audit is an on-site survey and assessment to determine the water quality, use and hence improving the efficiency of its use.

- · USES AND MANAGEMENT:
- · SOURCE OF WATER:

SR. No.	PARAMETERS	Response
1	Source of water	Warana River, Mahalaxmi Lake
2	Water reserve /Storage tank	03
3	Capacity of tank	5000 L -1 2000L-2

#### WATER USERS IN CAMPUS:

Sr. No.	Person in different section	Strength (No. of person )
1	Staff	29
2	Non teaching Staff	31
3	Visitors	95
4	Hostel Boarders	28

Rodomad Sang Contraction of the Contraction of the



The visitors of the College vary with respect to different activities conducted in the College campus. During admission and different competitive exam conducted in the College campus.

# • QUANTITY OF WATER USED IN DIFFERENT SECTIONS OF THE CAMPUS

Sr. No.	Sections	Water Use (Litter/day)
1	Academic building	64144
2	Canteen /Mess	6000
3	Laboratories	1200
4	Garden	1000
5	Leakage	500

# • WATER CONSUMPTION IN DIFFERENT ACTIVITY IN COLLEGE CAMPUS

Activity	Water used per activity (in Litter)	No. of times Activity performed in a day	Average water used Person/Day	No. of people using water	Total water consumption per Day
Hand and face wash	4-6 L	4	16-24L	709	14180
Drinking Water	0.2-0.4L	6	1.2-2.4L	700	1260
Toilet Flush	8-10L	4	32-40L	709	25524
Bath	30-40L	1	30-40L	28	980
Cooking and washing in Resident	150-250L	2	300-500L	15	6000
Cooking	350-450L	2	700-900L	15	12000
Cloth washing	100-200L	1	100-200L	28	4200
			Total	Seguil Engineer and	64144



- MAJOR OBSERVATIONS IN REGARD OF WATER USAGES AND CONSERVATION PLAN
- The rain water is drained by storm water drain and released to gardening purpose.
- Hazardous liquid waste disposed by authorized agency
- Rain water harvesting system is installed and collected water used for gardening and agricultural purpose.
- RECOMMENDATIONS:

College administration may consider theses on top priority:-

- To establish and implement the Water Conservation and Management Plan as per Environment Protection Act 1986
- Display boards for switching off the taps to be put on at appropriate place.
- To provide any treatment for waste water before use for agriculture or gardening.
- To provide drip and sprinkling irrigation system to avoid waste of water
- · Automatic Leak detection systems for conservation of water.
- Special Internal Water Audit to be conducted quarterly.

#### 7.2 WASTE MANAGEMENT:

This indicator addresses waste production and disposal of different wastes like paper, food, plastic, biodegradable, glass, dust etc. reuse and recycling. Furthermore, solid waste often includes wasted material resources that could be channelled into better service through recycling, repair, and reuse. Solid waste generation and management is a burning issue. Unscientific handling of solid waste can create threats to everyone. The survey focused on volume, type and current management practice of solid waste generated in the campus.



11



 DIFFERENT TYPES OF WASTE GENERATED IN THE COLLEGE AND THEIR DISPOSAL.

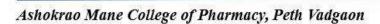
Types of waste	Particulars	Disposal method
Plastic waste	Pen, Refill, Plastic water bottles and other plastic containers, wrappers etc	Municipal
Solid wastes	Damaged furniture, paper waste, paper plates, food wastes	Municipal
Chemical wastes	Laboratory waste	Neutralize with water
Glass waste	Broken glass wares from the labs	Municipal
Sanitary Napkin	Napkin	Incinaration
Bio medical waste	catheters, syringes, IV bottles, Blood sample, medicines, infectious waste, cotton, bandages	Authorized disposal agency(SS Services)

- MAJOR OBSERVATIONS IN REGARD OF WATER USAGES AND CONSERVATION PLAN:
- At present total solid waste collected in the campus is 13 Kg/day. Waste generation from tree droppings, canteen and lawn management is a major solid waste generated in the campus.
- Other solid waste directly disposal to municipal corporation.
- RECOMMENDATIONS:
- Dustbins should be providing at classrooms and campus premises.
- > Vermin-compost pit should be providing at campus premises.

#### 7.3 AIR POLLUTION MANAGEMENT:

> PERIODIC AWARENESS PROGRAMME FOR STAFF, STUDENTS AND SOCIETY

Every day there are 40 Two wheelers 2 buses and 9 four wheelers are coming in College premises but there is no system observed to check for PUC certificate, Vehicle Exhaust Gas Analysis and Vehicular movement noise and vibration pollution but buses





are having PUC certificate. The air pollution at the time of ignition off and on is more than it is in riding mode.

#### > RECOMMENDATIONS

The College may consider these on top priority:-

- World Environment Day to be celebrated in College premises every year on 5th June
- College shall monitor the Ambient Air Quality as per the guidelines of "Air (Prevention and Control of Pollution) Act 1981.
- · Use of bicycle in campus to be promoted.

# 7.4 NOISE POLLUTION AND ILLUMINATION MANAGEMENT:

# MAJOR OBSERVATIONS IN REGARD NOISE POLLUTION:

#### SILENCE ZONES IN THE COLLEGE

No display boards have been placed in the library and other places for awareness to maintain silence in the College.

#### Noise Study:

Noise level monitoring was carried out using Noise Level Meter. The noise level survey was carried out two locations, at outside as well as inside.

#### Noise Monitoring

#### Observations:

Location	Time	1	2	3	4	5	Noise Level Readings dB(A)
Outside	12.20	48.2	44.8	47.2	50.1	51.2	48.3
	1.20	51.1	52.1	49.2	48.1	48.4	49.78
Inside	12.20	50.2	46	49.1	45.1	47.2	47.52
1115166	1.20	49.1	48.2	49.8	47.4	45.2	47.94
As per 7	he Noise I	Pollution	Regulati	on & Co	ntrol)Ru	les, 2000	(Rules 3(1 and 4(1))
Area C		Area			Limits	in dB (A)	weighted scale
				Day (6 10p	29-36-63	N	ight(10pm to 6am)
В		Comm	ercial	6:	5		55

It is observed that noise level of the campus is within limit as per the noise pollution regulations and control rules 2000.

#### Illumination study

The illumination study was carried out using Lux Meter. The illumination study out at two locations, in Classroom and Laboratory.

13



#### Observations:

Sr.	Location	Time		Lux Lev	el Readin	g (Lux)		Average
No.			1	2	3	4	5	Lux
1.	Classroom	12.20	180	185	208	225	214	202.4
2.	Laboratory	12.20	197	190	178	210	188	192.6

All results of Illumination Study (Classroom and Laboratory) found within limits as per MF Rules- Section-35, Schedule B.

#### RECOMMENDATIONS

The College administration may consider on top priority

- Vehicular exhausts shall be examined regularly in the collage as per Central Motor Vehicle Act 1988
- Vehicular movement shall be restricted by putting boundary limit and beyond that limit bicycles usage shall be promoted to all students and staff.
- The College adopts no honking policy and prevents use of any honk and noise in campus. Certain areas like library, classrooms are declared as silence zone and noise pollution is kept to minimum on college campus





#### 7.5 Energy Audit Report

Table shows the energy consumption pattern of the college for a month. The college has consumed an average of 6074.848~kW/hr electricity in a month and the one year.

Sr. No.	Particulars	Wattage (W)	Quantit y	Run Time (Hr/Day)	Load (KW)	Energy consumed per day kWh/day
1	Tube light (copper choke)	40	163	6	6.52	39.12
2	Fan	80	160	6	12.8	76.8
3	Air Conditioner	1070	3	6	3.21	9.26
4	Projector	300	6	6	1.8	10.8
5	Computer system	250	70	6	17.5	105
6	LED bulb	20	46	6	0.92	5.52
7	T.V	60	2	6	0.12	0.72
8	Printer	40	6	4	0.24	0.96
9	Xerox Machine	1500	2	4	3	12
10	Geyser	3000	0	0	0	0
11	Electric Motor	3728.5	2	4	7.457	29.828
		Total	1		53.567	300.008





# 7.6 GREEN BELT AREA & BIO-DIVERSITY:

The Green Belt Area is meant for conservation of nature and aesthetic value of the College premises. The Green Area in the College includes the plants, greenery and sustainability of the campus to ensure that the buildings conform to green standards This also helps in ensuring that the Environmental Policy is enacted, enforced and reviewed using various environmental awareness programmes

#### OBSERVATIONS

Campus is located in the vicinity of approximately 30 types (species) flora and fauna.

# Types of trees planted which are environment friendly are enlisted below:

Sr. No.	Botanical Name	QTY
1	Bauhinia variegata	1
2	Bauhinia purpurea	1
3	Lawsonia inermis	1
4	Cassia tora	1
5	Datura metel	1
6	Gossypium Herbaceum	1
7	Mimosa pudica	1
8	Bixa orellana	1
9	Nyctanthesarbo-tristis	2
10	Elettaria cardamomum	1
11	Plantago ovata	1
12	Zingiber officinale	1
13	Withaniasomnifera	1
14	Tylophora indica	i
15	Bacopa monnieri	1
16	Eclipta alba	1
17	Trachyspermumammi	2
18	Tinospora cordifolia	1
19	Gymnemasylvestre	1
20	Caesalpinia bonduc	1
21	Rapis Palm	6
22	Croton	6
23	Thoja Plant	6
24	Cristina	6
25	Champane Palm	2
26	Dracena	3
27	ficus	6
28	Euphorbia	2 and C
29	Table palm	2 1000
30	Gymnemm Sylvestre	1 5
31	Tinospora Cardifollia	1 (sault
	16	2 2 1 1 1



#### • Animal Welfare

More than 15 Squirrels are found in the campus, Approx. 2 dogs, 2 owl, 4 green beceater, 4 Black sparrow, 2 crow pheasants, 12 pigeon, and others including butterflies, insects, bees, earthworms, etc. are there in campus.

#### RECOMMENDATIONS

The Management of College may consider on top priority that

- ✓ Drip irrigation is strongly recommended to conserve the water.
- ✓ Reuse of the water shall be done instead of use of fresh water.
- ✓ Watering schedule to be planned according the season
- ✓ The Biodiversity is to be maintained while considering the plantation in future
- ✓ The selection of trees species to be based on environmental conservation and carbon sequestration value.
- Artificial nests and water ponds are recommended to attract different birds in their migrating and breeding season.
- ✓ Display the name of plants.
- ✓ Total 33% area is to be reserved for plantation
- Special Tree Plantation shall be celebrated every year on environment day and also competitions for bird species identification and knowing the tree values in terms of medicinal and environment conservation.







**Back to Index** 







#### 9. Conclusion

Few recommendations are added to curb the menace of waste management using eco friendly and scientific techniques. This may lead to the prosperous future in context of Green Campus & thus sustainable environment and community development. As part of green audit of campus, we carried out the environmental monitoring of campus includes Illumination, Noise level, Ventilation and Indoor Air quality of the class room. It was observed that Illumination and Ventilation is adequate considering natural light present. Noise level in the campus well within the limit i.e. below 65 dB at day time.

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 effort 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 become a more sustainable institution.





#### 10. References:

- The Environment [Protection] Act 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- The Petroleum Act: 1934 The Petroleum Rules: 2002
- The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle
- Rules:1989 (Amended in 2005)
- Energy Conservation Act 2010.
- The Water [Prevention & Control Of Pollution] Act 1974 (Amended 1988) & the Water (Prevention & Control of Pollution) Rules – 1975
- The Air [Prevention & Control Of Pollution] Act –1981 (Amended 1987)
   The Air (Prevention & Control of Pollution) Rules –1982
- The Gas Cylinders Rules 2016 (Replaces the Gas Cylinder Rules 1981
- E-waste management rules 2016
- Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
- The Hazardous Waste (Management and Handling and Trans-boundary Movement)
   Rules, 2008 (Amended 2016)
- The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
- The Batteries (Management and Handling) rules, 2001 (Amended 2010)
- Relevant Indian Standard Code practices
- · Internal Records of the Campus



21



# ENVIRONMENTAL AUDIT REPORT

# ENVIRONMENTAL AUDIT REPORT

Client Name	Ashokrao Mane College of Pharmacy, Peth-Vadgaon
mashin oil maga	Tal- Hatkanangle, Dist- Kolhapur
Project Name	Ashokrao Mane College of Pharmacy, Peth-Vadgaon
denni sei compre	Tal- Hatkanangle, Dist- Kolhapur
Date	Year 2021-22
Submitted by	Ashokrao Mane Group of Institutions
	Vathar Tarf Vadgaon,
	Tal- Hatkanangale, DistKolhapur (Maharashtra state)









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# ACKNOWLEDGEMENT

We appreciate the interest and participation of the Honourable Management and Principal and Faculty in carrying out the energy audit at Ashokrao Mane College of Pharmacy, Peth-Vadgaon Tal- Hatkanangle, Dist- Kolhapur. Our special thanks to the Technicians and Staff involved in the college who have extended their cooperation and courtesy to the energy audit team during the audit.

Estd. 2006



# ENVIRONMENTAL AUDIT

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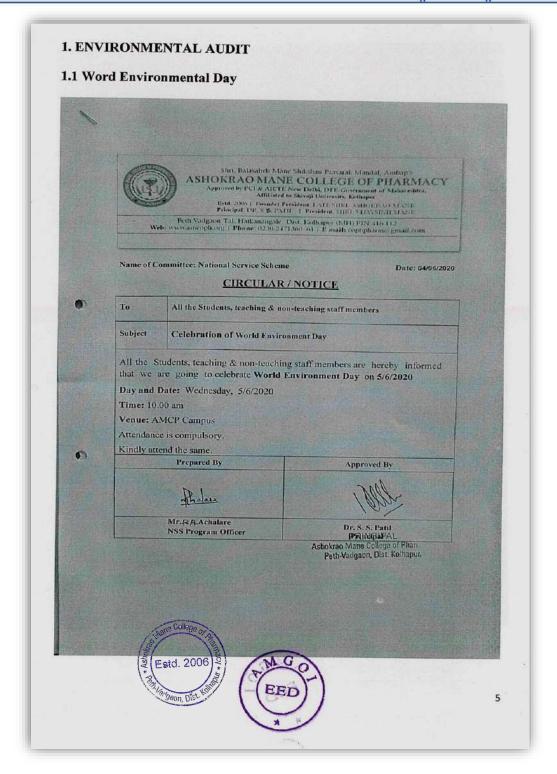
# **INDEX**

Chapter	Title	Page
1	ENVIRONMENTAL AUDIT	5
	1.1 Word Environmental Day	
	1.2 Tree Plantation	11
	1.3 National Pollution Day	21
	1.4 NO Vehicle Day	23
1,000	1.5 Plastic and Paper-Free Campus	28
	1.6 Liquid Waste Management	28
	1.7 Bio Medical waste	29
	1.8 Solid waste management	31
	1.9 E-waste management	31
2	Conclusion and General Recommendations of the Audit	33

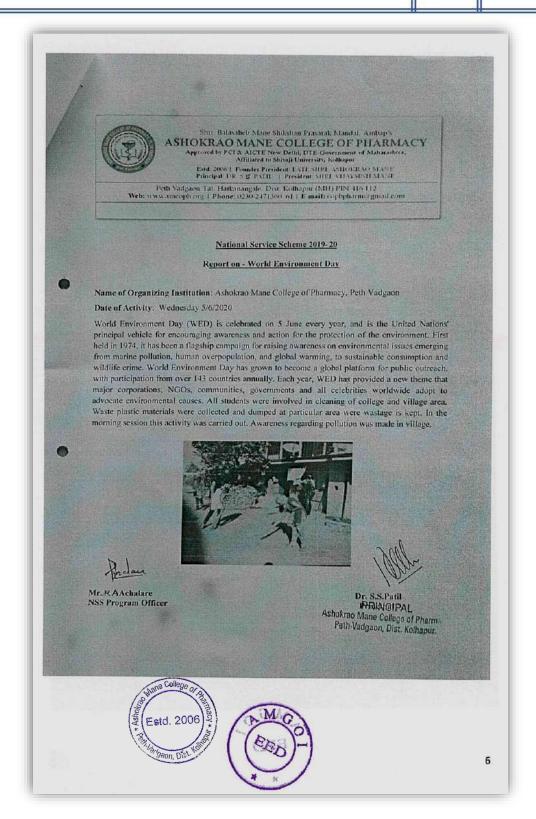






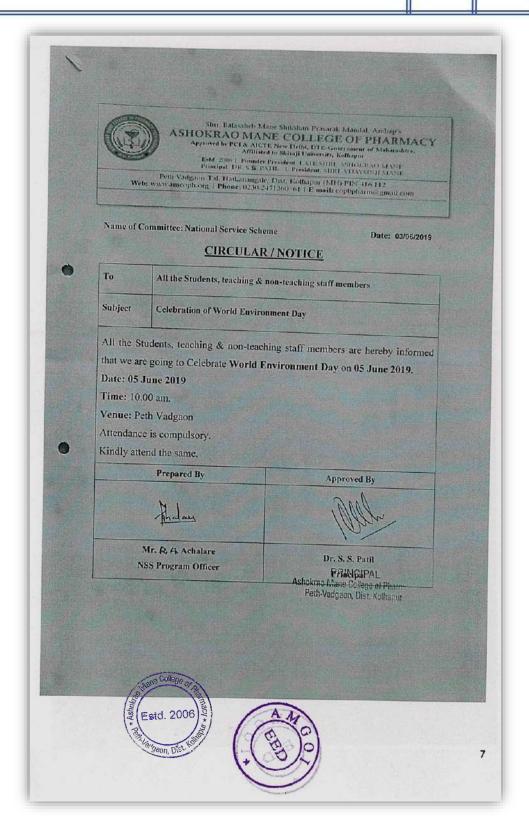




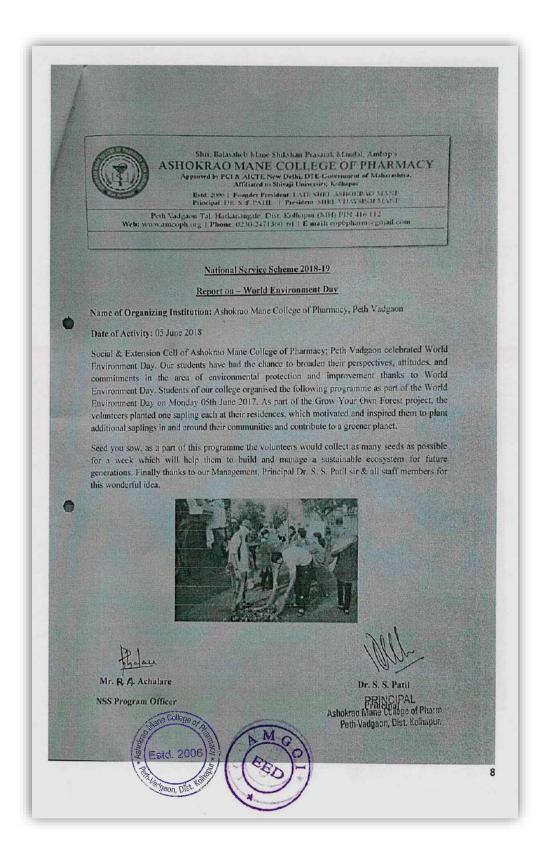


**Back to Index** 



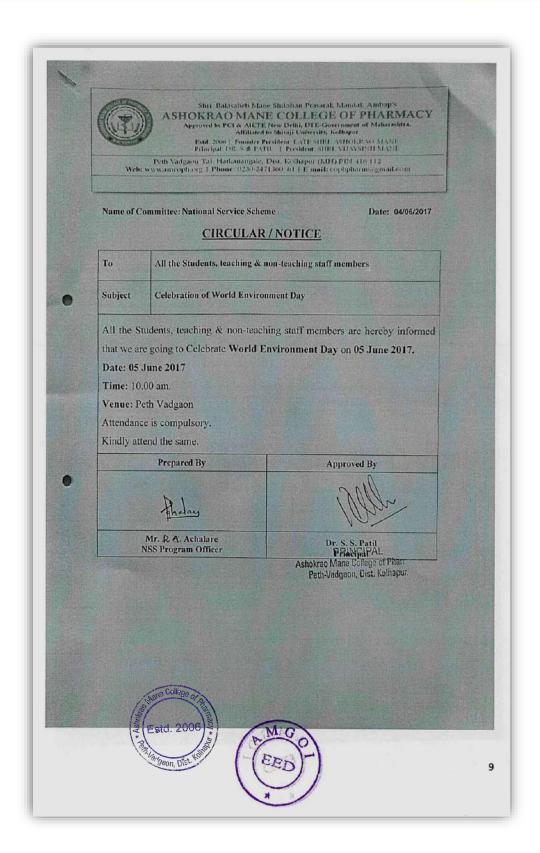




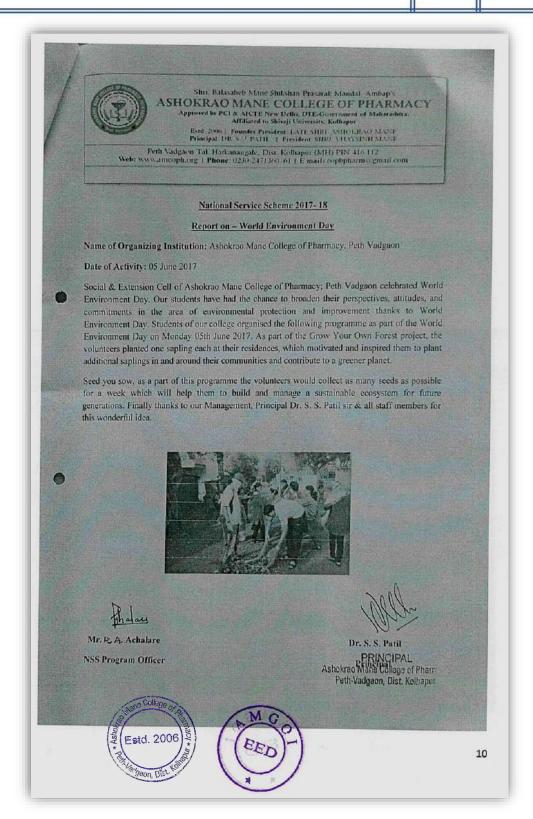


**Back to Index** 

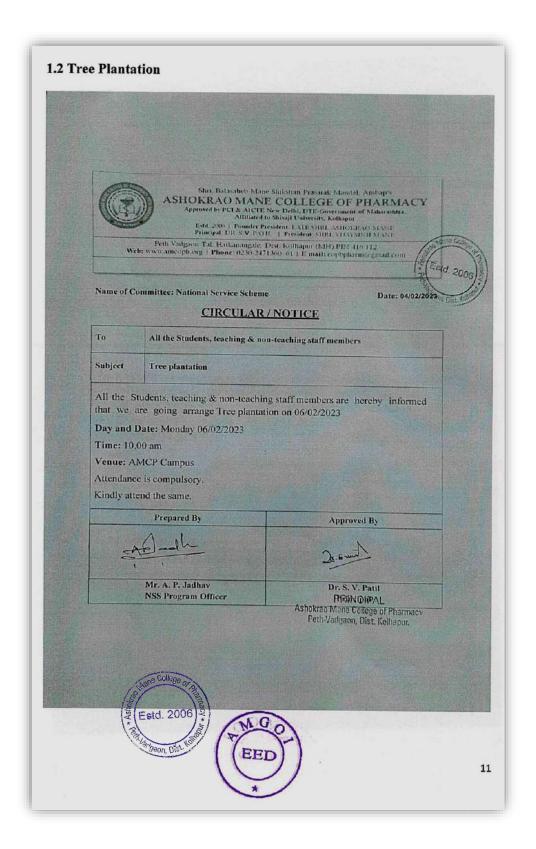




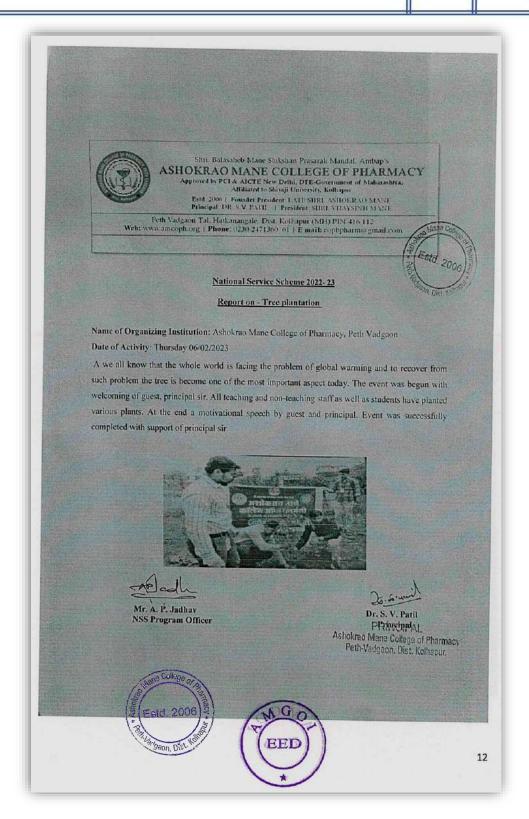






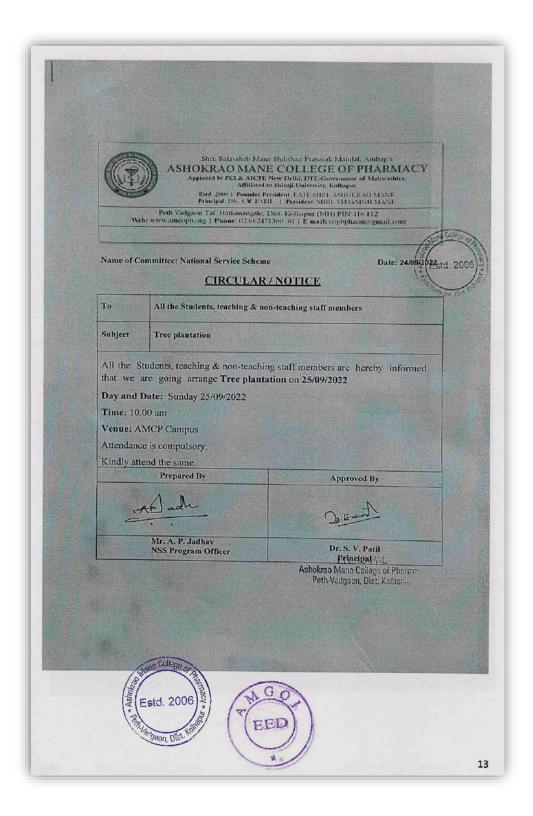




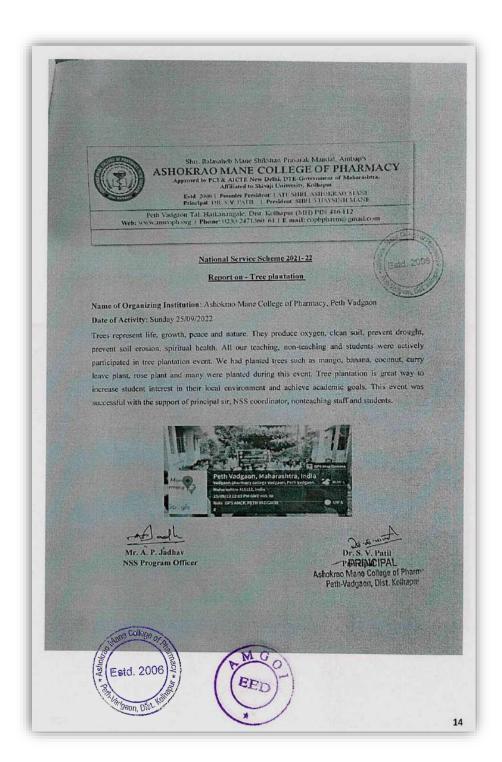


**Back to Index** 



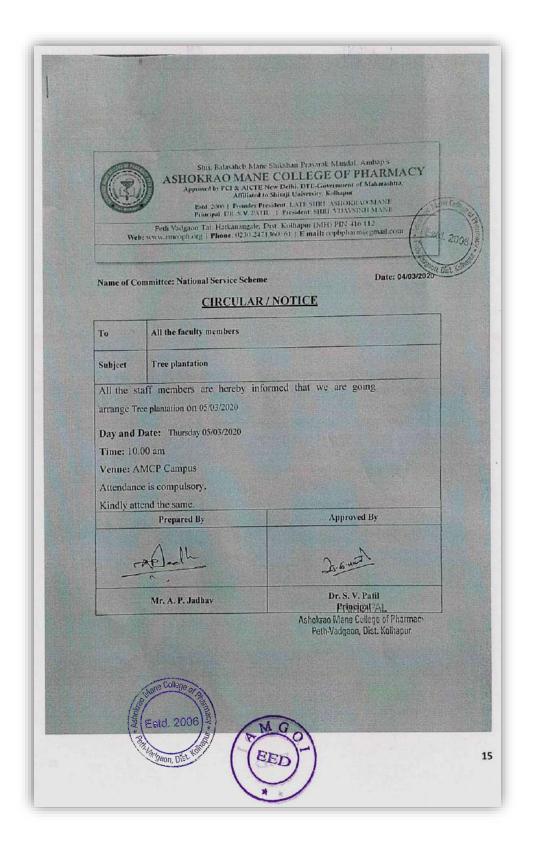




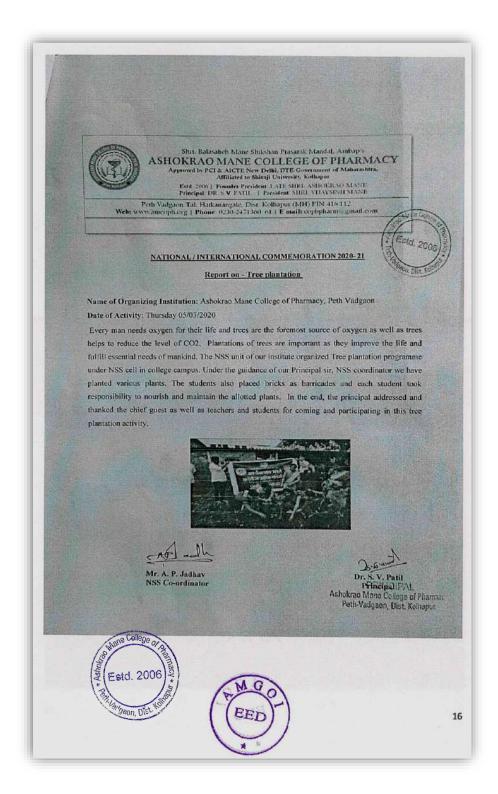


**Back to Index** 



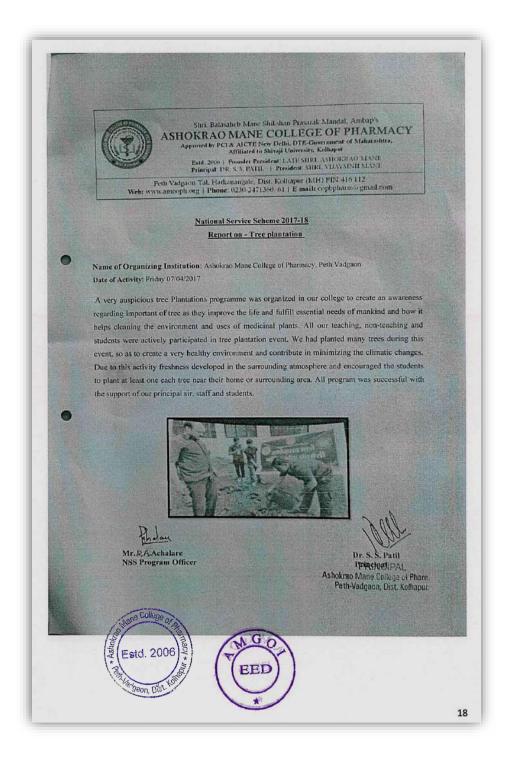




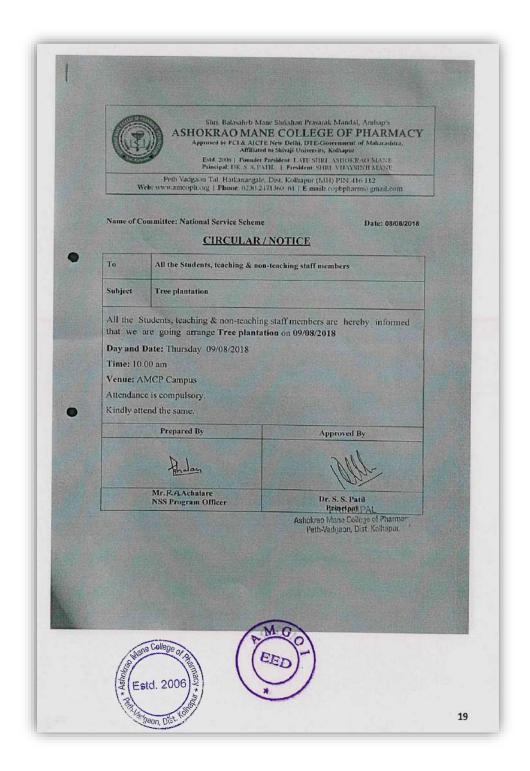


**Back to Index** 

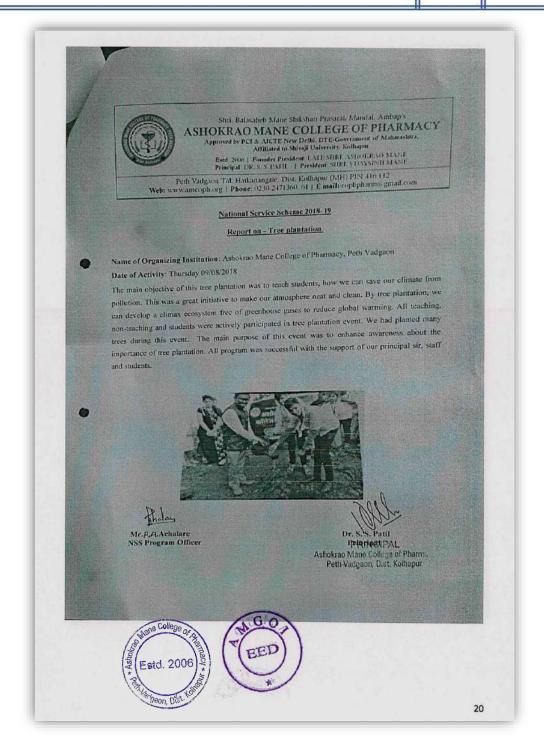






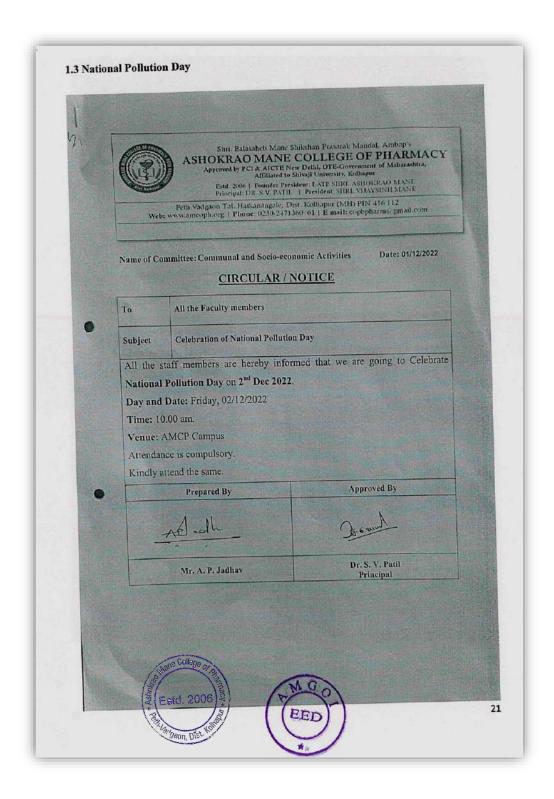




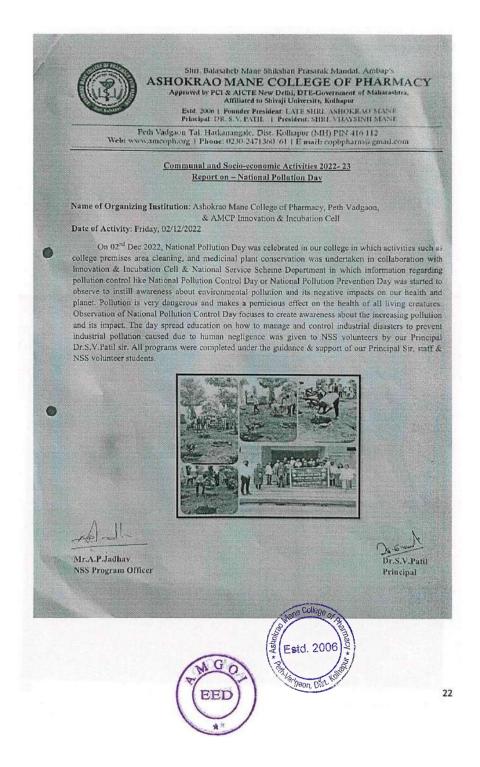


## **Back to Index**

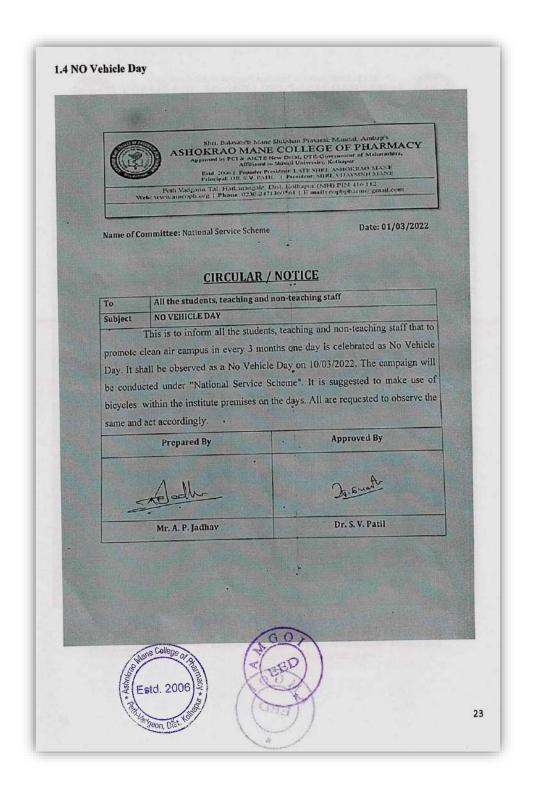


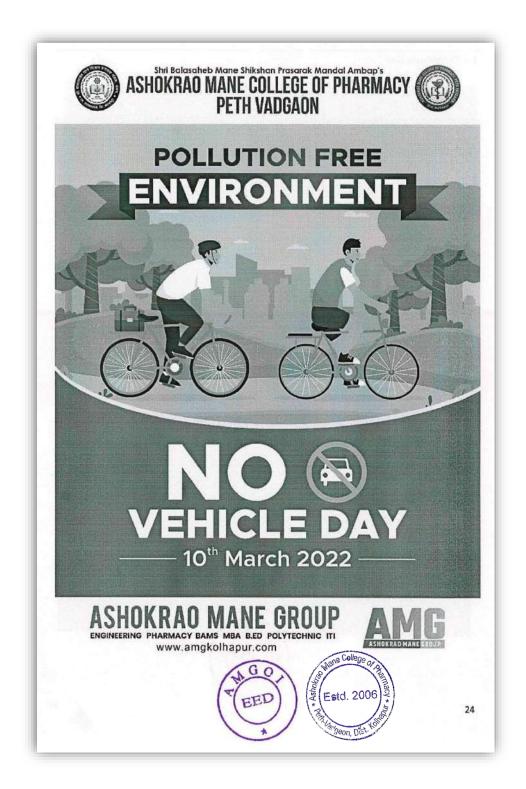




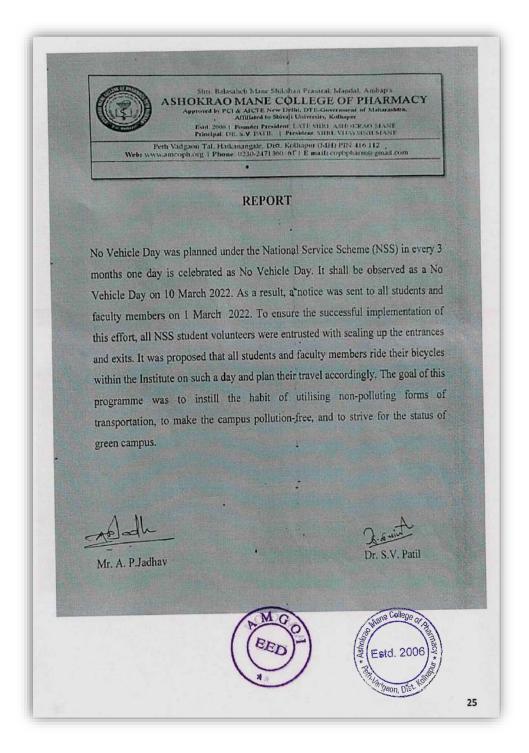


**Back to Index** 

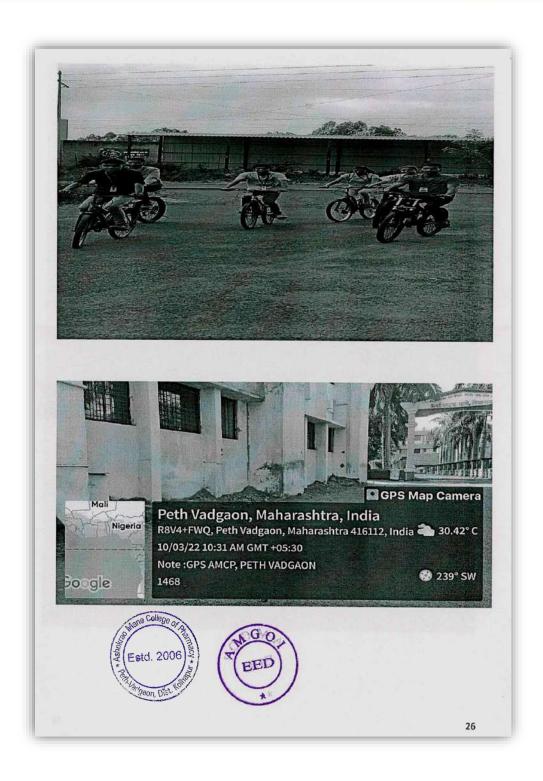




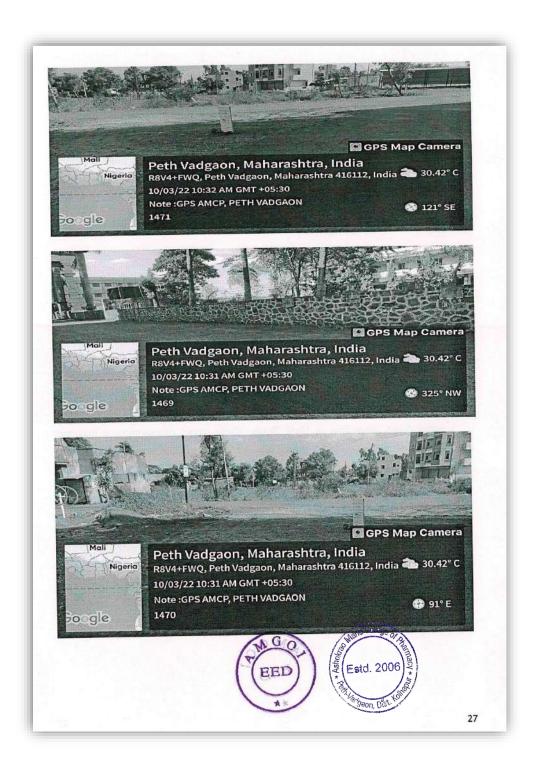












**Back to Index** 



### 1.5 Plastic and Paper-Free Campus

The initiative has been taken by the college administration to make the campus plastic and paper free. Most of the information is now shared with the faculty and students by email and social media applications rather than paper notices. Also, the college has organized an awareness program for students on the above topic. It has been decided that 1 day in a month will be celebrated as bicycle day which will avoid the use of motor vehicles Below is the image of the awareness program conducted in college.

## 1.6 Liquid Waste Management

- · Liquid waste management:
- The waste chemicals mixed water from the laboratory passes through concealed pipeline into a soak pit & recycled water is used for watering trees or non-potable usage.
- Liquids are diluted by getting mixed with the washroom and toilet liquid wastes into the common drainage.
- Water Conservation

Water conservation is the practice of using water efficiently to reduce unnecessary water usage. According to Fresh Water Watch, water conservation is important because fresh clean water is a limited resource, as well as a costly one.



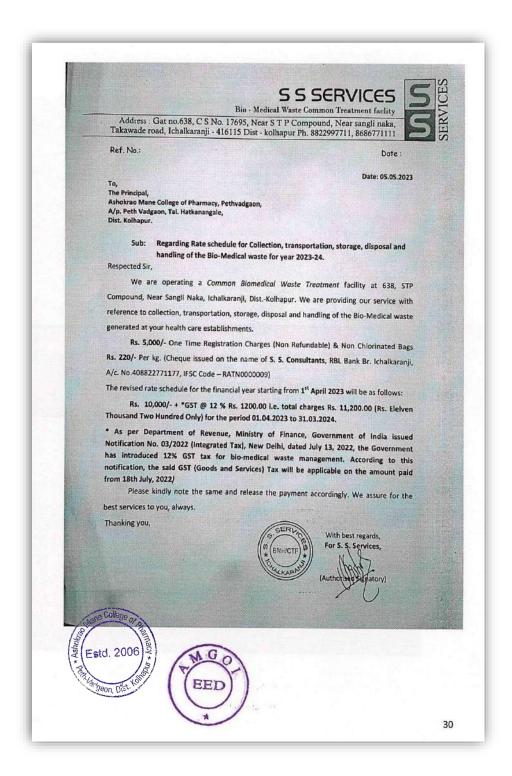


28









## **Back to Index**



- · To reduce waste at the institute, students and staff are educated on proper waste management practices through lectures, advertisements on notice boards, displaying slogan boards on the campus.
- Waste is collected on a daily basis from various sources and is separated as dry and wet waste.
- Color-coded dustbins are used for different types of waste. Green for wet and blue for solid waste.
- · Daily garbage is collected by housekeeping personnel and handed over to authorized personnel of vadgaon nagar parishad for further processing. All wastewater lines from toilets; bathrooms etc. are connected with Municipal drainage mains. Waste materials like plastic, paper, etc. are collected and sold out to scrap vendors from time to time.
- Efforts have been taken to produce compost manure from the canteen solid waste and waste from other sources and efficiently run by the students. Manure is used for the purpose of herbal gardens as well as for planting trees.

# 1.9 E-waste management

The disposal of E-Waste is a rapidly growing problem because electronic equipment frequently contains hazardous substances which affect the environment and human health. Ewaste such as discarded computers, office electronic equipment, monitors, and Hard Disks are disposed of as per their conditions. These wastes are sold to local scrap. Efforts are made to reduce e-waste by making optimum use of electronic devices.

#### Observations

The college conscientiously works towards generating minimal e-waste, for which the following strategies are adopted: Regular maintenance of electronic equipment and computers by the in-house technician and AMC ensures longer life. Weeded out computers from the computer science laboratories due to gradation are transferred to departments, the administration within the college campus. Outdated Computers, servers, monitors, compact discs (CDs), DVDs, printers, scanners, copiers, motherboards, battery cells, and other electronic equipment, weeded out from the proporter laboratory are used for demonstration of 31 Estd. 2006



internal parts of the equipment. Some electronic equipment is replaced with newer models due to the rapid technological advancements and production of newer electronic equipment.

#### Recommendations:

Electronic equipment may contain heavy metals and other materials. Computers and electronic equipment typically contain:

- Lead Computer monitors contain a picture tube known as a cathode ray tube (CRT). CRTs contain leaded glass and are the largest source of lead in municipal waste. The solder used in printed circuit boards may also contain lead.
- Cadmium The largest source of cadmium in municipal waste is rechargeable nickel-cadmium (NiCd) batteries. These batteries are found in most desktop and laptop computers.
- Mercury Some electronic equipment also contains recoverable quantities of mercury,

which is a toxic metal. Unwanted electronic equipment must therefore either be donated for reuse or sent for recycling.







32



# 2.0 CONCLUSIONS AND GENERAL RECOMMENDATION OF THE

#### AUDIT

- a) Consider planting trees and shrubs in strategic locations to help to reduce the temperature and airflow in Laboratory, classroom, etc. Trees planted on the west and south sides of buildings help to keep the buildings shaded during hotter weather.
- Formation of Environment Policy and communication to all faculties and other staff members.
- c) Reduction in use of paperwork by going digital system.
- d) Water Meter should be installed at the institute for monitoring water consumption for the landscape.
- e) Increase in Environmental promotional activities for spreading awareness at the campus.
- f) As practically feasible avoid use of personal vehicles inside the campus.

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33

**Back to Index**