



Jalgaon District Maratha Vidya Prasarak Co-op Samaj's,
Shri. S. S. Patil Art's, Shri. Bhausaheb T. T. Salunkhe Commerce and Shri. G. R.
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Jalgaon District Maratha Vidya Prasarak Co-op. Samaj's

**Shri. S. S. Patil Art's, Shri. Bhausaheb T. T. Salunkhe
Commerce and Shri. G. R. Pandit Science College,
(Nutan Maratha College), Jalgaon**



Environment (Green) & Energy Audit Report

(2021-22)

SRUSHTI EHS Consultant Services

(Registered under MSME, Gov. of India)

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A
ENVIRONMENT (GREEN) & ENERGY AUDIT
REPORT

of



Jalgaon District Maratha Vidya Prasarak Co-op Samaj's,

SHRI. S. S. PATIL ART'S, SHRI. BHAUSAHEB T. T.
SALUNKHE COMMERCE AND SHRI. G. R. PANDIT
SCIENCE COLLEGE,
(NUTAN MARATHA COLLEGE), JALGAON

Taluka: Jalgaon, District: Jalgaon, Pin Code: 425001, State: Maharashtra

For the year

2021 - 22

Submitted by,

SRUSHTI EHS Consultant Services

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SRUSHTI


EHS Consultant Services




Environment (Green) & Energy Audit

This is to certify that “**J.D.M.V.P. Samaj's, Shri. S. S. Patil Art's, Shri. Bhausaheb T. T. Salunkhe Commerce and Shri. G. R. Pandit Science College, (Nutan Maratha College), Jalgaon Taluka: Jalgaon, Dist.: Jalgaon (Maharashtra)**” has satisfactorily handled the **Environmental (Green) & Energy Audit** for the college covering all the details in accordance with the required norms for the year **2021 - 22**.

The audit shall assist them to develop measures to save the environment and its individual units.


Dr. Kiran P. Pawar
DIRECTOR
SRUSHTI EHS CONSULTANT
JALGAON



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Preamble

The rapid environmental degradation at local, regional and global level is real, which is leading us to global “Environmental Poverty”. Stabilization of human population, adoption of environmentally sound and sustainable technologies, reforestation, and ecological restoration are crucial elements in creating an equitable and sustainable future for all humankind in harmony with nature. Thus, academic leaders must initiate and support mobilization of internal and external resources and knowledge so that their institute responds to environmental challenges.

Nutan Maratha College, Jalgaon is deeply concerned and unconditionally believes that there is an urgent need to address these fundamental problems and reserves the trends. We deeply subscribe to the fact that humans should be steward of Mother Nature and that we all have a profound responsibility to protect the earth’s resources in perpetuity. Being a premier institute of higher learning, Nutan Maratha College, Jalgaon has resolved to play a major role in the education, research, policy formation, and information exchange necessary for a sustained environmental campaign.

The current environmental audit represents the first stage in our efforts to build environmental sustainability on the campus. The audit was conducted by a Dr. Kiran P. Pawar (Director, SRUSHTI EHS Consultant Service, Jalgaon). SRUSHTI EHS Services have conduct this audit not only for the institution itself, but just as importantly to be role model institution for others to emulate and bring the environmental concerns and related mitigating measures to center stage of campus life in the city of Jalgaon, District – Jalgaon, the state of Maharashtra and extend locally, regionally and beyond.

The overall goals of this audit were:

- To introduce students to real concern of environment and its sustainability using the Nutan Maratha College, Jalgaon Campus as a study site.
- To analyze the pattern and extent of resources use on the campus.
- To make the college a more environmentally sustainable institution of higher learning
- To bring out a status report on environmental compliance.

About the JDMVPs, Jalgaon



Jalgaon District Maratha Vidya Prasarak Co-operative Samaj Ltd. Jalgaon (JDMVP) was established in 1917 with the motto, ‘Bahujan Hitay, Bahujan Sukhay’ i.e. ‘In the interest of the masses, for the welfare of the masses.’ The college strives with the objectives of reaching out to the less privileged, to uplift the needy and poor downtrodden to open for them the avenues of higher education. The objectives encompass the goals to facilitate access to higher education for poor students from nearby villages approximately Jalgaon city for boosting their courage and confidence and develop them into sensitive youths with social and moral commitment. The institution also has objective to broaden their vision towards casteless, creedless society and promote in them the social awareness and to equip them with the knowledge and skills for self-employment opportunities.

When the institution was registered in 1917, the institution started its work with just seven students admitted for education. With the sincere efforts of the visionaries, the institution flourished with lips and bound from a single school of seven students to a multi-institute group delivering quality higher education at all levels. Today J.D.M.V.P. owns and manages 3 senior degree colleges, 30 Secondary schools, 14 Jr. Colleges, 10 M.C.V.C. centers, two Y.C.M.O.U. centers and a girl’s high school a D.Ed. College and a primary school.

About Nutan Maratha College, Jalgaon

The registered name of this college has become as JDMVPS Shri S. S. Patil Arts, Shri Bhausaheb T.T. Salunkhe Commerce and Shri G.R. Pandit Science College, Jalgaon This college is affiliated to KBC North Maharashtra University and college caters the education from 11th Std to M. A., M. Com, M.Sc. students. The college runs graduate course in Physics, Chemistry, Botany, Microbiology, Zoology, Mathematics, Computer Science, Electronic etc. Graduation and Post-Graduation in Languages English, Hindi, Marathi, Urdu and in all social sciences are available along with separate commerce faculty. The college has well qualified teaching staff to cater all of its courses and most of the teachers are also guiding M. Phil. and Ph. D. Students. The college is situated in the heart of the city with 08 acres of land & has built up area of 8584 square meters. The college has thirty-five class rooms, Science, computer science, Psychology, English language laboratories, Geography, Commerce Social Sciences departments, Gymkhana, partially automated central library, NSS, NCC, NAAC, IQAC offices, Principal, vice principal, administrative offices, gents and ladies staff rooms and ladies' room for girls. In addition to these the audio-visual aids, OHP, LCDs, power generator, invertors, safe and purified drinking water, vehicle parking for students and the teachers as well, playground, facilities for indoor and outdoor games etc.



Over the last two decades, our college has grown in terms of faculties, co-curricular and extra-curricular and extension activities. We are open to students of all community, the majority being SC, ST, SBC, NT, and OBC. We are permanently affiliated to North Maharashtra University, Jalgaon which was ranked first among the state university as per the survey by Career360

magazine. We try our best to inculcate knowledge through co-curricular and extra-curricular activities. Under the Student Welfare Committee we have NSS and Yuvati Sabha unit which undertake social causes and try its best to inculcate the same among the students and the masses.

The official and unofficial feedback we receive from the students, alumni, parents, educationists and Local Managing Committee helps us to identify the weakness and also helps us to achieve excellence in our endeavor. We were granted B (Pointer Score - 2.6) grade by the previous NAAC Peer team in February 2016 and have endeavored to implement their recommendations.

We do our best to provide all round development of our students in curricular, co-curricular and extra-curricular activities and in doing so we aim to achieve a contribution and commitment to a better India for all us.

The Internal Quality Assurance Cell has been instrumental in raising the quality of the college, implementing and enhancing the measures for quality improvement during the post accreditation period. This report is the outcome of the collective and collaborative effort of the entire college community. It has been prepared under the leadership of our Principal Dr. L. P. Deshmukh & IQAC coordinator- Prof. B. C. Patil (Department – English) who along with all the teaching staff members, meticulously collected, analyzed, documented and articulated all the records and activities, listed in the seven criteria for the last five years.

We have had several meetings with the staff, as the drafts of the report were being prepared, so that everyone would be familiar with the report and offer suggestions and indicate areas we had overlooked.

The college has also taken positive steps towards making the campus environmental friendly. No vehicle day is observed as a contribution to environment. For energy conservation, LED lights and solar lamp is installed in the campus. Water harvesting and RO system is installed for safe drinking and good health of all the staff and students.

The College has set the vision –

To broaden the horizon of knowledge to the laymen, to the masses from the nooks and corners of the valleys and villages. The visionaries of our ‘Samaj’ adopted the motto ‘Bahujan Hitai Bahujan Sukhay’, i.e. In the interest of masses, for the welfare of the masses.

Mission: We, at ‘Jalgaon District Maratha Vidya Prasarak Co-operative Samaj’s Shri. S.S.Patil Arts, Bhusaheb T. T. Salunkhe, Commerce and Shri. G.R. Pandit, Science college, Jalgaon’. Popularly known as ‘Nutan Maratha College’ Jalgaon are committed to reach out to the poor, the needy and segregated, the deprived and hitherto neglected, to boost their courage and enkindle confidence in them so that they could claim higher education/ learning as their legitimate right.

The College aspires "*To be a distinguished Institution which provides high quality education*". It wants to provide such courses which will be uniquely valued by industry and provide a firm basis for its students to build challenging careers in their professional life.

The College has set the objectives -

- To offer qualitative valuable service in the field of education to the people in and around Bhusawal city.
- To develop responsible youth having social commitment.
- To aim at overall personality development of students fraternity through extracurricular activities in association with various social and cultural organization.
- To provide a platform to the students, by giving them an opportunity to face the challenges of the competitive world with utmost utilization of their potential in sport sand other events.

About SRUSHTI EHS Consultant Services...



We, **SRUSHTI EHS Consulting Services**, are register under **Ministry of Micro, Small & Medium Enterprises (MSME), Govt. of India, ISO 9001:2015 certified firm.**



We are pioneer in Khandesh region for providing the Environmental and Engineering solutions, Consulting services in the field of Environment, Health & Safety. We are work only for Quality Assurance up to Client Satisfaction. We provide Sustainable Environmental solutions that meet specific client's need by employing/partnering with highly educated & experienced team members as they will assist with in-depth Research, Proactive Strategy, Operative Implementation, and long term support to fulfill all of our client's needs. We are maintain high standard of professional behavior & will comply with Regional, State & National regulations as well as guidelines.

We are experienced and expertise to conduct the **“Green Audit” (Environmental Audit) of Educational Institutes, Colleges, & Universities (as per NAAC Criterion VII)**. With this, we develop **“Green Practices”** at client's site. We are also arrange Environmental activities, Environmental Awareness Champaign on special occasions like World Ozone day, Environment Day, etc.

Apart from these, we are expert in following consulting services:

- **Green Audit/Environmental Audit**
- **Energy Audit**
- **Water Audit (Water Conservation & Management, Rain Water Harvesting)**
- **Gender Audit**
- **Fire Safety Audit** (As per NBC-2016, mandatory for Schools, Colleges, Hospitals, Commercial Shops/Complex, Residential & Commercial Buildings, Industries, etc.)
- **Air Quality Monitoring** (Ambient Air Quality & Workplace Air Quality)
- **Water Quality Monitoring** (Drinking water, Waste water, Ground water)
- **Solid Waste Management**
- **Noise Monitoring & Mapping**
- **Illumination Monitoring**
- **Carbon Foot Printing & Pollution Load Assessment**
- **Workplace Hygiene Monitoring**
- **Training & Hand on Demo** (Environmental equipment's, Fire Safety equipment's, Handling of Hazardous/Flammable Chemical, Gas Cylinder, Waste Material, etc.)
- **Training on Defensive Driving & Material Handling Equipment's (MHE)**

Audit Team

External Audit Member

Sr. No.	Name of Auditors	Designation
1	Dr. Kiran P. Pawar	Director, SRUSHTI EHS Consultant Service, Jalgaon

Internal Audit Team Members

Sr. No.	Name of Auditors	Designation
1	Dr. L. P. Deshmukh	Principal, Nutan Maratha College, Jalgaon
2	Prof. B. C. Patil	IQAC Coordinator, Nutan Maratha College, Jalgaon
3	Dr. Mrs. M. S. Patil	HOD, Dept. of Chemistry, Nutan Maratha College, Jalgaon
4	Dr. P. B. Patil	HOD Dept. of Zoology, Nutan Maratha College, Jalgaon
5	Prof. R. B. Deshmukh	HOD, Dept. of Physics, Nutan Maratha College, Jalgaon

Executive Summary

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 institute, which will lead for sustainable development.

Green auditing can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The green audit aims to analyze environmental practices within and outside the college campus, which will have the impact on the eco-friendly ambiance. It was initiated with the motive of inspecting the work conducted within the campus whose exercises can cause risk to the health of inhabitants and the environment. Through green audit, one gets the direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out green audit.

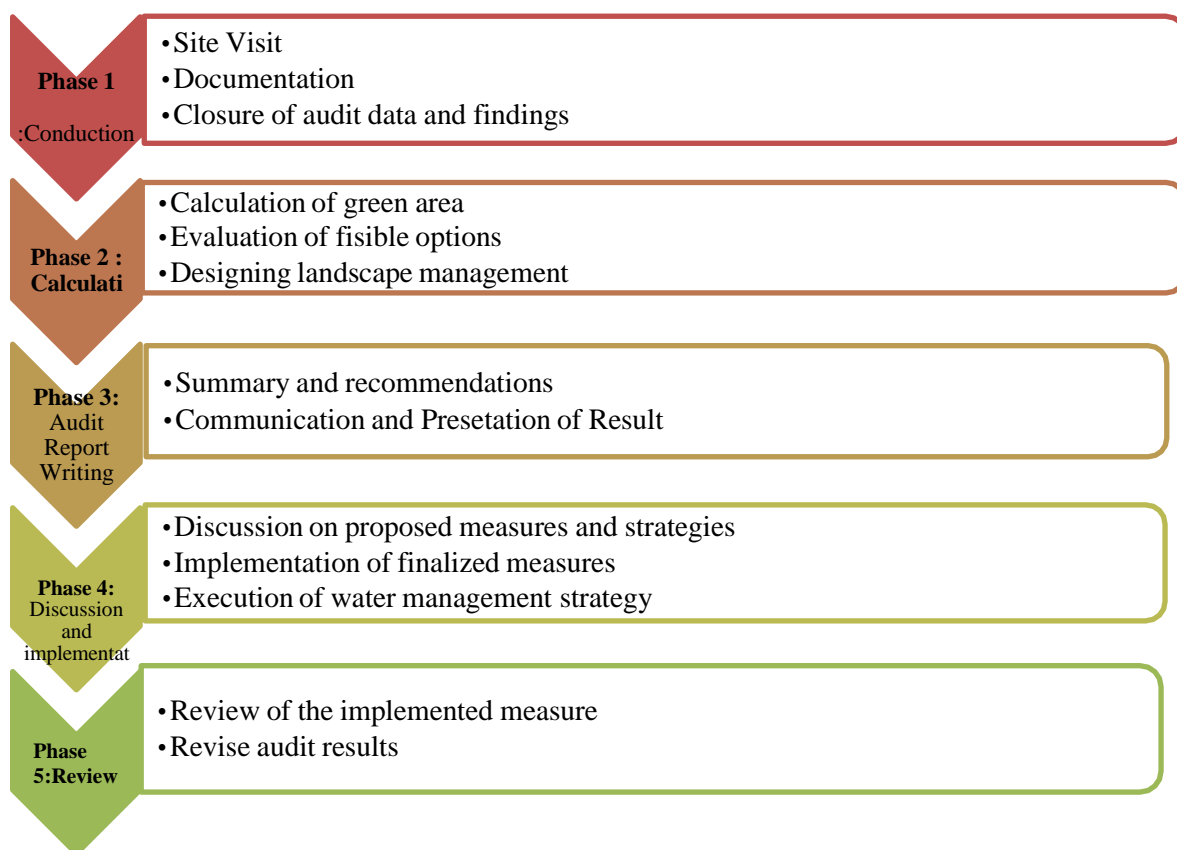
Objectives of Audit

The main objective of green analysis is to promote the environmental management and conservation in the campus. The purpose of auditing is to identify, quantify, describe, and prioritize framework of environmental sustainability in compliance with the applicable regulations, policies and standards.

The main objectives of carrying out green analysis are-

- To introduce and aware students to real concerns of environment and its sustainability.
- To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource used in the campus.
- To prepare a baseline report on sustainable development and other resources, measures to mitigate resource wastage and improve resource quality and sustainable practices.

Nutan Maratha College, Jalgaon is intensely concerned and totally believes that there is an urgent need to address these basic problems and reverse the trends. Being a leading institution of higher learning, the college has initiated ‘The Green Campus’ program four years back that actively promote the various projects for the environment protection and sustainability. The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. With this in mind, the specific objectives of the audit were to evaluate the adequacy of the management control framework of Environment Sustainability as well as the degree to which the Departments comply with the applicable regulations, policies and standards.



Phase I: Conduction of Audit

At the beginning of green audit, it is must to observe the supply, storing and consuming facilities are provided on the site. The Green audit team commits to:

1. Conduct site visit to locate the water points & Map them.
2. Locate the green landscapes.

3. Mark Native plants.
4. Compile the findings during visit.
5. Notice conditions of water fixtures (dirty, stuck, leaking etc.)

Phase II: Calculation

After completion of site visit, the audit team performed calculation to analyses the acquired data with reference to local bye laws (in India: NBC 2016) as base line. This enables to determine whether the premise is covered with green and well shaded.

Based on the calculation, the landscape management strategies have to be defined and implement in the respective premises.

Phase III: Audit Report

The team prepares detailed report based on procedure mentioned above. The audit report consists:

1. Observations done during audit.
2. All the measurements, calculations.
3. Summary and conclusions based on the calculations.

Phase IV: Discussion & Implementation

After formation of audit report, the audit team will hold meeting with the respective project team to discuss the current and future scenario towards the landscape management. The key discussion points are:

1. Possible water conservation measures & their implementation in landscape.
2. Areas where water can be conserved like rainwater harvesting & wastage of water can be minimized

Later, the project team will implement the measures that are finalized in accordance to the discussion and meetings held with audit team.

Phase V Review

After the implementation of measures, the review and maintenance of the same is much needed. Because, the continuous monitoring of the measures can only justify and revise the water savings occurring in the premises.

The formation of "Sustainable Cell" in the premises will help in proper & continuous execution of the measures, a This cell is also responsible to educate the occupants regarding effects of water management along with the finding and installing any new techniques at the project site.

LAND SCAPE USE

LOCATION	LENGTH (M)	WIDTH (M)	AREA (M)
New Science Building	57	8	456
Chemistry	31.70	11.4	361.38
Main Office Building (upto YCMOU)	97.5	11.4	1111.5
Library	27.0	25.0	675



Land scape area covered by College Buildings - 1



Land scape area covered by College Buildings - 2

Nutan Maratha College, Jalgaon and “Environment Committee” to perform various activities in the field of Green Campus. College is adopting zero waste discharge facility to manage the solid, liquid and e-waste.

Solid waste management: Around 03 kg/ day food and other waste is generated in the form of biodegradable solid waste from the campus. It is frequently dispatched to the solid waste collection vehicle of Municipal Corporation. With regard to green waste generated on campus, which includes grass clippings, leaf litter, and other landscaping related refuse is being treated for composts.

Liquid waste management: The College has designed the outflow of the liquid waste in such a way as to prevent contamination in the campus. A properly constructed leakage proof sewer system is used for drainage.

e-waste management: All electronic gadgets are periodically repaired for efficient utilization and replaced under buy back scheme of supplier. Hence, minimum e-waste is generated in the campus. The remaining non-working computers, monitors and printers are discarded and scrapped on a systematic basis. If some parts are useful, in other systems they are kept aside for future use.

Land Scape – Water Schedule

MONTH	NO.OF DAYS	REMARK
JUNE	15	ALTERNATE DAYS
JULY	6	ONCE IN A WEEK
AUGUST	6	ONCE IN A WEEK
SEPTEMBER	10	TWICE IN A WEEK
OCTOBER	10	TWICE IN A WEEK
NOVEMBER	10	TWICE IN A WEEK
DECEMBER	10	TWICE IN A WEEK
JANUARY	10	TWICE IN A WEEK
FEBURARY	10	TWICE IN A WEEK
MARCH	15	ALTERNATE DAYS
APRIL	15	ALTERNATE DAYS
MAY	16	ALTERNATE DAYS

College is concern about water conservation, so the college authority save the runoff of rain water from the terrace of the buildings constructed in the college campus by Rain water harvesting structures. Rooftop of main building is used to collect the rainwater, which is used by department of chemistry for regular practical sessions. The runoff from the unpaved area is intercepted at certain locations by collection trenches. This runoff eventually facilitates groundwater recharge.

Colleges willingly accepted the green practices and strictly follow them. The college conducts campaign for students and faculty to understand the importance of environmental protection and be mindful about saving energy. The authority frequently appeals to the students and faculty to maintain the tradition of no vehicle day on any one day in month. To understand the plant biodiversity of the campus, the college has been conducting census of tree, herbs and shrubs every five years since 2020. As per recent survey (2022), the college campus has rich plant biodiversity having more than 250 + plants. Around 20% of the total campus area covered with plantation more than 250 plants and trees species thus giving pure oxygen to students and staff and making campus green and beautiful.

Statement of Assurance

The audit has been conducted in accordance with the standard procedures for the professional practice of internal auditing.

In our professional judgement, sufficient and appropriate audit procedures were completed and evidence gathered to support the accuracy of the conclusions reached and contained in this report. The conclusions are based on a comparison of the situations, as they existed at the time of the audit with the established area.

Methodology of Audit

In order to meet its objectives, this audit combined physical inspection with review of relevant documentation and interactions with departmental staff members and students.

- **Review of the Documentation:** For the purpose of this audit, Green audit framework was reviewed.
- **Interviews:** Interviews were conducted with the principal, departmental faculties and students.
- **Physical Inspection:** The audit team was conduct physical observation in the college campus to inspect the green practices.

Summary of Findings

The main findings of the audit show that, all the department staff and students are aware about the needed for environmental protection at a general level. It was also observed that a number of best practices such as maintaining the collection of waste separately, introduce rain water harvesting to new building structures, implementing plastic free campus etc. are followed in the college premises.

Audit framework and detailed findings

The following audit framework is used for conducting Green Audit in 2021-22. The frame work also lists the finding and also observations for every criterion.

Criteria- 1: Deployment of Environment Committee

Objective: Development of the Environment Committee who set the best standards in the field of environmental monitoring system through different activities.

Activity: Creating the awareness among all students, staff members & all stakeholders of institute regarding clean & green environment.

Audit Observation: For this purpose, college management deployed the some staff members and prepared designated “Environmental Committee” for the year 2021 to 2024. The committee as follows:

“Environment Committee”

Sr. No.	Name of the Members	Department	Designation
1	Dr. Madhuri S. Patil	Chemistry	Chairperson
2	Prof. B. C. Patil	English	IQAC Coordinator
3	Dr. P. B. Patil	Zoology	Member
4	Prof. R. B. Deshmukh	Physics	Member

The above committee members are responsible for conducting different environmental activities from time to time. As evidence, the institute celebrates World Environment Day on 5th June of every year. Institutes involved in Tree plantations in and outside the college, arrangement of Guest lectures on current environment topics, distributing plant species instead of gifts, etc. The committee members continuously spread the deep knowledge regarding the importance of Environment through different competitions like Poster presentation, PPT presentation, Rangoli competitions, and the theme of the same is environment & its factors.

Criteria- 2 (A): Waste Generation and Management

Objective: Maximize the waste recycled and minimize the quantity of non-recycled refuse.

Activity: Segregation of waste

Audit Observation: Waste Material is segregated as per category like Paper, Cardboard, Scrap Wood, Scrap Metal, Plastic scrap, glass, laboratory rags etc. Each waste is stored at departmental level and periodically sending to other purposes.

Type of waste	Audit Observation
Paper Waste	<ul style="list-style-type: none"> • One-side rough papers are used for the printing of Notices, Time Tables etc. in each department. • Email and Mobile media communication is used for minimize the use of paper.
Scrap Material	<ul style="list-style-type: none"> • Plastic bottles, caps and other waste material are stored separately at departmental level and handover to local scrap vendor system as a scrap material
Glass Waste	<ul style="list-style-type: none"> • Empty chemical glass bottles are stored separately and periodically sending as a scrap material to registered agency.
Construction Waste	<ul style="list-style-type: none"> • In case of small expansion, construction waste is use for land filling and landscaping within the college premises.
Electrical Waste	<ul style="list-style-type: none"> • Electrical waste like damaged electrical board, switches, cut wires are collect by electrician and replace this with new one and remaining wastage is sold as scrap. • Electrical waste related to computer, key boards, and mouse is collect by Computer science department for repairing and replaces the damaged one and remaining wastage is sold as scrap.

Criteria- 2 (B): Waste Generation and Management

Objective: Collection of waste.

Activity: Students as well as faculties of different department concern about waste collection. They do not throw the paper, plastic and other solid waste in the surrounding premises of college campus.

Audit Observation: In addition, separate plastic dustbins (for dry & wet solid waste) are installed at various locations in the college campus for collection of waste including administration office, college campus, garden area etc. Jalgaon Municipal Corporation collects the stored waste on every day.

Criteria- 2 (C): Waste Generation and Management

Objective: Plastic free Campus.

Activity: Motivate students about harm of plastic carry bags and items to convince them for no use of plastic in college premises.

Audit Observation: Proper dustbins are provided to each department. To aware all students as well as faculties of different department about “No Use of Plastic” in college campus, awareness boards are display at various location in the college campus.

Criteria- 3 (A): Water Management & Conservation

Objective: Use of water for drinking purpose.

Activity: Provision of water cooler

Audit Observation: As a part of an essential facility, a water cooler is installed for the drinking water purpose for students and staff members. Frequent cleaning is also carried out to avoid the contamination and maintain the hygiene condition. The outlet of the water cooler is provided to the near garden area to use the water for gardening purposes and avoid the wastage of water.

Criteria- 3 (B): Water Management & Conservation

Objective: Water conservation.

Activity: Rain Water Harvesting

Audit Observation: Surface & roof water harvesting facility is provided to the main building, & college campus ground. Due to this facility, bore wells are charged naturally and the ground water table may increase. Watering in Botanical garden is carried out using the wastewater coming from Botany and Zoology lab. Many plants in the campus are watered using wastewater from drinking water tank. These plants are watered using canals as well as pipes.



Rain Water Harvesting Area

Sr. No.	Name	Quantity	Location
1	Rain water Harvesting Pit	One	Back side of Bhaskaraacharya Bhavan
2	Rain water Harvesting Pit	One	Back side of Chemistry Lab

One of medium of harvesting rainwater is providing the incoming rainwater directly to the ground. This will increase ground water table of the location and also helps in achieving the ground water at same or at less level than the existing level. Further, the rainwater is reused in the landscape of campus.

Water Audit
(Academic Year 2021-22)

Water User Profile:

Water User Includes students, staff, visitors etc.

- a. Total number of water users : Approx. 1500
- b. Number of Employee: (Teaching + Non Teaching) = 110
- c. Number of students : 3606
- d. Number of visitors (daily Average) : 15 to 20 Approximately
- e. Average working days: 06 per week
- f. Office timings: 7.30 to 5.30
- g. Rain water harvesting system availability : Yes
- h. Is rainwater harvesting system working? Yes
- i. Daily water supply (liters) :1200 liters approx.

Assessment of water requirement

Sr. No.	Site	Total no. of Sources	Measurement of water Uses (Daily)				
			Rate of Discharge (Liter/min)	Average Duration of Use (min)	Average Quantity per use (liter)	No. of Uses (No.)	Total Daily Use (liter)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Urinals	14	01	2.00	2.00	1500	3000
2.	Bathroom	20	01	2.00	2.00	1500	3000
2.	Laboratory	17	05	05	25	1000	25000
3.	Other (Drinking purpose with RO)	01	0.50	10	05	1000	5000
4.	Gardening Purpose	01	10	5	50	100	5000
TOTAL							41000

Water Source & Storage:

Water from tube-well & Mahanagarpalika is directly pumped to the overhead tank and underground water tank.

Criteria- 3 (C): Water Management & Conservation

Objective: Water Conservation.

Activity: Checking of water sources regularly

Audit Observation:

- The storage (overhead/underground tank) checked periodically for any leakage.
- The departmental Tap was checked periodically to prevent from any leakage.
- The leakage Tap replace by new one.

Criteria- 4 (A): Energy Consumption (Electrical Energy)

Objective: To save the electrical energy.

Activity: Installation of “Solar Lamp” at ground of college campus.

Audit Observation: College management has a positive approach for the installation of Solar panels to save electrical energy by using natural resources. The environmental committee is in the planning phase for the same. Currently one solar lamp is installed and used for lighting purposes in college campuses.



Solar Lamp

Criteria- 4 (B): Energy Consumption (Electrical Energy)

Objective: To save the electrical energy.

Activity: Planning for Installation of LED light at administration.

Audit Observation: Currently the college used traditional tube lights (61 nos.), halogen lights (03 nos.) and LED lights (06 nos.). College management is in the planning phase to install the LED lights at the office and laboratories area. It will conserve electrical energy instead of tube lights. College used natural light as maximum in daytime to reduce the load on electricity.

Particulars	Tube Lights	LED's (Tube & Bulb)
Number of Lights	50	570
Watt/light	40	08
Average Cost/light (Rs.)	60	250
Initial Investment (Rs.)	3000	142500
Kwh energy consumed by the lights	14	1.75
Cost of energy (Rs. 5/kwh) (Rs.)	70	8.75
Kwh energy consumed per month 8 hours working/22 days	2464	308
Avg. Cost of energy consumed per month (Rs.)	12,320	1,540

Average consumption & Cost related to use of lighting system in college premises

Criteria- 4 (C): Energy Consumption (Electrical Energy)

Objective: To save the electrical energy.

Activity: Conservation of Electrical Energy at Departmental Level

Audit Observation:

- All laboratory having panel boards MCB switch to control the electrical supply within the department. The responsibility is given to non-teaching staff to “Switch-off” this switch without any ignorance to avoid the wastage of electrical energy.
- Maximum area of the college building having the sunlight throughout the day. It reduce the burden on electricity. Natural light (Sun light) is use at the practical labs, classroom, admin office, etc.
- Signboards like “Switch off the fans / light when not in use” are displayed in the departments.
- The water pumps are regularly maintained for minimum consumption of electricity.
- College management thoughts about solar panel installation to save the electricity.
- Power saver lights, five star rating AC systems, LCD monitors, Branded fans are used to minimize the consumption.

Criteria- 5: Energy Consumption (Transportation)**Objective:** To save the fuel energy.**Activity:** Motivate to students and faculties for reduce the use of vehicles in college campus.**Audit Observation:** The Environmental committee is declared as a “No vehicle day” once a month to minimize the use of personal vehicles within the college campus. Students as well as faculty member’s respond to this theme very well. To motivate and educate the students regarding minimum use of vehicles, the “Cycle Day” programme is arranged by college facilities.**Criteria- 6:** Energy Consumption (LPG Cylinder)**Objective:** To save the LPG energy.**Activity:** Conserve the LPG at departmental Level**Audit Observation:**

- The gas burners, tubes are checked periodically to prevent the leakages of gas.
- Slow flame is adjusted during the practical work to minimize the excess use of gas.
- The practical is listed as per use and non use of LPG.
- The empty cylinder are stored centrally and labeled as “EMPTY”
- The use and requirements of each department about LPG is monitored by concern Lab Attendant.

Criteria- 7: Air Quality of the Campus**Objective:** To assess the air quality of Campus.**Activity:** The status of ambient air pollution will be monitored by using High Volume Sampler (Envirotech APM 460 BL Respirable Dust Sampler-RDS). SPM samples were collected with the help of a high volume sampler on a cup for 24 hr. with air flow rate of 1- 1.5 m³ min⁻¹. The difference in initial and final weights of the cup and filter paper was given the total quantity of SPM collected over the 24 hr period. Measurement of SO₂ (µg m⁻³) in the ambient air will be

analyzed by the West- Gaeke method (1956) and NO₂ (µg m⁻³) gas by the modified method of Jacob and Hochheisher (1958).



Ambient Air Monitoring Observations:

Location Code	Locations	Parameters		
		SO _x	NO _x	SPM
S-1	Main Gate	30.18	58.71	218.8
S-2	Left Side of the college	30.14	59.23	186.8
S-3	Right Side of the college	31.28	59.76	192.2
S-4	Back side of the college	31.65	50.06	188.5
NAAQS Limits		80	80	200

Status of Ambient Air Quality within the premises of College

Criteria- 8: Monitoring and Assessment of Noise

Objective: To measure the ambient as well as workplace noise within the college campus.

Activity: To measure the Noise Quality by Noise Level Meter.

Audit Observation:

Noise has been recognized as ambient air pollutant. Standards in this regards are laid down under Environment (protection) rules, 1986.

Sr. No.	Category of Zone	Permissible Limits dB (A) Leq	
		Day Time	Night Time
1	Industrial Zone	75	70
2	Commercial Zone	65	55
3	Residential Zone	55	45
4	Silence Zone	50	40

Permissible Limit of Noise in Different Zones

- The permissible limits are count as per the zones. The noise monitoring generally carried out at day time and at night time.
- The day timing is considered as morning 06:00 am to night 10:00 pm and the night timing consider as night 10:00 pm to morning 06:00 am.
- As per the observations are recorded the day time and night time standards are used for the comparisons.
- Zone assortment may be carried out by Municipal Authority of that particular locations or city.
- Hospitals, **Educational Institutes**, Governmental offices, Session courts and Police Stations include in “Silent Zone”
- So “Silent Zones” standards (Day Time only) used for the comparisons.

Sr. No.	Locations	Noise Level in dB (A)		MPCB Limits
		Day Time	Night Time	Silent Zone
1	Main Entrance	74.2	NA	
2	Central Point of Ground	69.6	NA	
3	Entrance Main Building	67.8	NA	
4	Principal’s Cabin	51.5	NA	
5	Faculty Staff room	42.4	NA	
6	Library (Office)	39.1	NA	

7	Library (Reading Room)	37.6	NA
8	Botany Laboratory	46.3	NA
9	Admin Office	49.6	
10	Chemistry Laboratory	52.6	NA
11	Geography Laboratory	51.9	NA
12	Phycis Laboratory	49.4	NA
13	Backside of college	52.8	NA
Classrooms			
14	Class Room No. 1	53.8	NA
15	Class Room No. 3	55.2	NA
16	Class Room No. 5	53.9	NA
17	Class Room No. 7	56.4	NA
18	Class Room No. 10	51.3	NA

Observation of Noise Level Monitoring (A)

Except Main gate, center point of ground and main entrance of building, all other observations are within the prescribed limits of Environment (protection) rules, 1986. Due to nearby areas the noise level high at Main gate and Centre point of ground.

Criteria- 9: Green Campus with Botanical Garden

Objective: To increase the Green Cover with different tree/plant species within the college campus in the form of botanical garden.

Activity: Develop & maintained the botanical garden. Tree plantation in and near by area of college.

Audit Observation: College & staff members are taking the efforts to develop & maintain the botanical garden within the college premises. Total 33 plant species with different families are present in the botanical garden. The details are shown in the table below. To understand the plant biodiversity of the campus, the college has been conducting a census of trees, herbs and shrubs every five years since 2020. As per recent survey (2022), the college campus has rich plant biodiversity having 250 + plants. List of the plants is mentioned below:

Sr. No.	Botanical Names	Family	Common Name	Total in campus
1.	<i>Azadiracta indica</i>	Meliaceae	Kaduneem	44
2.	<i>Caryota urens</i>	Arecaceae	Bottle Palm	25
3.	<i>Cocus nucifera</i>	Arecaceae	Coconut	02
4.	<i>Polyalthia longifolia</i>	Annonaceae	False Ashok	20
5.	<i>Tecoma stans</i>	Bignoniaceae	Yellow Bell	02
6.	<i>Murraya paniculata</i>	Rutaceae	Kamini	04
7.	<i>Annona squamosa</i>	Annonaceae	Sitaphal	02
8.	<i>Citrus ourientinum</i>	Rutaceae	Lemon	02
9.	<i>Laecuna lucocephala</i>	Mimosaceae	Subabhul	10
10.	<i>Thuja occidentalis</i>	Cupressaceae	Mayur Pankhi	03
11.	<i>Delonix regia</i>	Caesalpinaceae	Gold Mohar	11
12.	<i>Phyllanthus emblica</i>	Euphorbiaceae	Avla	03
13.	<i>Acharus sapota</i>	Sapotaceae	Chiku	02
14.	<i>Melingtonia hortensis</i>	Bignoniaceae	Buch	02
15.	<i>Psidium gauva</i>	Myrtaceae	Peru	02
16.	<i>Dalbergia sisoo</i>	Fabaceae	Sisam	20
17.	<i>Gmelina arborea</i>	Verbinaceae	Shivan	02
18.	<i>Pithecelbium dulce</i>	Mimosaceae	Vilaiti chinch	05
19.	<i>Ficus glomerata</i>	Moraceae	Umber	10
20.	<i>Albezia lebbec</i>	Mimosaceae	Shiris	09
21.	<i>Terminalia catapa</i>	Combretaceae	Badam	05

22.	<i>Tamarindus indica</i>	Caesalpinaceae	Chinch	05
23.	<i>Eucalyptus globulus</i>	Myrtaceae	Nilgiri	04
24.	<i>Peltophorum peltocarpum</i>	Caesalpinaceae	Peltophorum	17
25.	<i>Cassia fistula</i>	Caesalpinaceae	Amaltas	02
26.	<i>Mangifera indica</i>	Anacardiaceae	Mango	02
27.	<i>Ficus bengalensis</i>	Moraceae	Vad	08
28.	<i>Thavethia nerifolia</i>	Apocynaceae	Yellowkanher	04
29.	<i>Alstonia scholaris</i>	Apocynaceae	Saptapurne	10
30.	<i>Caesalpinia pulcherrima</i>	Caesalpinaceae	Shankasur	02
31.	<i>Ixora coccinia</i>	Rubiaceae	Ixora	02
32.	<i>Rosa indica</i>	Rosaceae	Rose	05
33.	<i>Hibiscus rosasinensis</i>	Malvaceae	Jaswand	02
34.	<i>Bougainvillea spectabilis</i>	Nyctaginaceae	Bogenvel	Hedge plants
35.	<i>Pongamia Pinnata</i>	Fabaceae	Karanj	02
36.	<i>Ocimum Tenuiflorum</i>	Lamiaceae	Tulsi	Bush
37.	<i>Ornamental plants in earthan pots</i>			

Some Plant Species available in the Botanical Garden



Facilities available at College Premises

- College provided Sanitary Napkin Vending & Disposal machine at girl’s washroom.
- Arrangement of walkway ramp for physically handicap students.
- Separate & clean washrooms, urinals, toilets for students & staff members.
- College provide sufficient numbers of Fire Extinguishers at every laboratories, admin building, corridors etc.



Sanitary Napkin Vending & Disposal Machine



DCP Type Fire Extinguisher
Total Fire Extinguishers: 22 Nos.
Total Fire Ball: 55 Nos.



Best Practices conducted by the College

- College celebrates “World Environment Day” on 5th June every year.
- The Environment Committee every year has been managed a programme on tree plantation and their nurturing to aware the students and the nearby society about the maintenance of the environment. The result is that, they have a beautiful green campus.
- World Ozone Day is celebrated each year on 16th September to spread the awareness among the students about the depletion of the ozone layer and to take certain steps for the solution of the problem.
- College management, Members of Environment Committee believe that, our environment is becoming increasingly contaminated because of the technological development. To aware the people and students about it, Earth Day is celebrated on 22 April every year.
- College provides Fire Extinguishers at science laboratories to tackle the fire emergency.
- The college has been taken initiative to make pollution free campus from the year 2020-21. The college started “No Vehicle Day” once in a month to reduce the air pollution and noise pollution.
- The college also try to prohibited mobile ban or limited use of mobile in the college campus. The mobiles of official persons kept on silent mode in the college campus.
- The college also invited guest to delivered lecture on environment topics.
- For all students of first year, university has started Environmental Studies to aware the students to conserve of environment.
- The college has also kept dustbins at different places. The separate store room is created to keep all the deadstock material of the college.
- The college planted trees around the campus are to reduce pollution.
- The college also organizes Fire Cracker less campaign in the city.
- The wastages are not burns and it is composed in the vermicomposting pit.
- The roof water harvesting is implemented in the college campus.

Photographic Plate



Library Reading Room – Utilize Natural Light



Admin Office Cabin – Utilize LED Light

Recommendations

Following the audit, some recommendations were made to the college authority by external audit team.

Sr. No.	Criteria	Recommendations
1.	Illumination Monitoring	It is recommended that to conduct the Illumination study to check the light intensity with in college campus.
2.	Vehicles	Monitoring the PUC of every vehicle within the campus at least once in a year to minimize the vehicular pollution load.
3.	Fire fighting Training	It is recommended that, firefighting training must be provided to lab assistants of science laboratories & official persons from admin block from external competent agency to tackle the fire emergency.

Declaration

I agree with all the recommendations and observations mentioned in this report.

Original signed with college seal by,

Dr. L. P. Deshmukh
(Principal)



Jalgaon District Maratha Vidya Prasarak Co-op Samaj's,
Shri. S. S. Patil Art's, Shri. Bhausaheb T. T. Salunkhe Commerce and Shri. G. R.
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Jalgaon District Maratha Vidya Prasarak Co-op. Samaj's

**Shri. S. S. Patil Art's, Shri. Bhausaheb T. T. Salunkhe
Commerce and Shri. G. R. Pandit Science College,
(Nutan Maratha College), Jalgaon**



Environment (Green) & Energy Audit Report

(2022-23)

SRUSHTI EHS Consultant Services

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A
ENVIRONMENT (GREEN) & ENERGY AUDIT REPORT
of



Jalgaon District Maratha Vidya Prasarak Samaj's,
SHRI. S. S. PATIL ART'S, SHRI. BHAUSAHEB T. T. SALUNKHE
COMMERCE AND SHRI. G. R. PANDITSCIENCE COLLEGE,
(NUTAN MARATHA COLLEGE), JALGAON

Taluka: Jalgaon, District: Jalgaon, Pin Code: 425001, State: Maharashtra

For the year

2022 - 23

Submitted by,

SRUSHTI EHS Consultant Services

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SRUSHTI


EHS Consultant Services




Environment (Green) & Energy Audit

This is to certify that “**J.D.M.V.P. Samaj's, Shri. S. S. Patil Art's, Shri. Bhausaheb T. T. Salunkhe Commerce and Shri. G. R. Pandit Science College, (Nutan Maratha College), Jalgaon Taluka: Jalgaon, Dist.: Jalgaon (Maharashtra)**” has satisfactorily handled the **Environmental (Green) & Energy Audit** for the college covering all the details in accordance with the required norms for the year **2022 - 23**.

The audit shall assist them to develop measures to save the environment and its individual units.


Dr. Kiran P. Pawar
DIRECTOR
SRUSHTI EHS CONSULTANT
JALGAON



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Preamble

The rapid environmental degradation at local, regional and global level is real, which is leading us to global “Environmental Poverty”. Stabilization of human population, adoption of environmentally sound and sustainable technologies, reforestation, and ecological restoration are crucial elements in creating an equitable and sustainable future for all humankind in harmony with nature. Thus, academic leaders must initiate and support mobilization of internal and external resources and knowledge so that their institute responds to environmental challenges.

Nutan Maratha College, Jalgaon is deeply concerned and unconditionally believes that there is an urgent need to address these fundamental problems and reserves the trends. We deeply subscribe to the fact that humans should be steward of Mother Nature and that we all have a profound responsibility to protect the earth’s resources in perpetuity. Being a premier institute of higher learning, Nutan Maratha College, Jalgaon has resolved to play a major role in the education, research, policy formation, and information exchange necessary for a sustained environmental campaign.

The current environmental audit represents the first stage in our efforts to build environmental sustainability on the campus. The audit was conducted by a Dr. Kiran P. Pawar (Director, SRUSHTI EHS Consultant Service, Jalgaon). SRUSHTI EHS Services have conduct this audit not only for the institution itself, but just as importantly to be role model institution for others to emulate and bring the environmental concerns and related mitigating measures to center stage of campus life in the city of Jalgaon, District – Jalgaon, the state of Maharashtra and extend locally, regionally and beyond.

The overall goals of this audit were:

- To introduce students to real concern of environment and its sustainability using the Nutan Maratha College, Jalgaon Campus as a study site.
- To analyze the pattern and extent of resources use on the campus.
- To make the college a more environmentally sustainable institution of higher learning
- To bring out a status report on environmental compliance.

About the JDMVPs, Jalgaon



Jalgaon District Maratha Vidya Prasarak Co-operative Samaj Ltd. Jalgaon (JDMVP) was established in 1917 with the motto, 'Bahujan Hitay, Bahujan Sukhay' i.e. 'In the interest of the masses, for the welfare of the masses.' The college strives with the objectives of

Reaching out to the less privileged, to uplift the needy and poor downtrodden to open for them the avenues of higher education. The objectives encompass the goals to facilitate access to higher education for poor students from nearby villages approximately Jalgaon city for boosting their courage and confidence and develop them into sensitive youths with social and moral commitment. The institution also has objective to broaden their vision towards casteless, creedless society and promote in them the social awareness and to equip them with the knowledge and skills for self-employment opportunities.

When the institution was registered in 1917, the institution started its work with just seven students admitted for education. With the sincere efforts of the visionaries, the institution flourished with lips and bound from a single school of seven students to a multi-institute group delivering quality higher education at all levels. Today J.D.M.V.P. owns and manages 3 senior degree colleges, 30 Secondary schools, 14 Jr. Colleges, 10 M.C.V.C. centers, two Y.C.M.O.U. centers and a girl's high school a D.Ed. College and a primary school.

About Nutan Maratha College, Jalgaon

The registered name of this college has become as JDMVPS Shri S. S. Patil Arts, Shri Bhausahab T.T. Salunkhe Commerce and Shri G.R. Pandit Science College, Jalgaon This College is affiliated to KBC North Maharashtra University and college caters the education from 11th Std to M. A., M. Com, M.Sc. students. The college runs graduate course in Physics, Chemistry, Botany, Microbiology, Zoology, Mathematics, Computer Science, Electronic etc. Graduation and Post- Graduation in Languages English, Hindi, Marathi, Urdu and in all social sciences are available along with separate commerce faculty. The college has well qualified teaching staff to cater all of its courses and most of the teachers are also guiding M. Phil. and Ph. D. Students. The college is situated in the heart of the city with 08 acres of land & has built up area of 8584 square meters. The college has thirty-five class rooms, Science, computer science, Psychology, English language laboratories, Geography, Commerce Social Sciences departments, Gymkhana,



partially automated central library, NSS, NCC, NAAC, IQAC offices, Principal, vice principal, administrative offices, gents and ladies staff rooms and ladies' room for girls. In addition to these the audio-visual aids, OHP, LCDs, power generator, invertors, safe and purified drinking water, vehicle parking for students and the teachers as well, playground, facilities for indoor and outdoor games etc.

Over the last two decades, our college has grown in terms of faculties, co-curricular and extra-curricular and extension activities. We are open to students of all community, the majority being SC, ST, SBC, NT, and OBC. We are permanently affiliated to North Maharashtra University, Jalgaon which was ranked first among the state university as per the survey by Career360

magazine. We try our best to inculcate knowledge through co-curricular and extra-curricular activities. Under the Student Welfare Committee we have NSS and Yuvati Sabha unit which undertake social causes and try its best to inculcate the same among the students and the masses.

The official and unofficial feedback we receive from the students, alumni, parents, educationists and Local Managing Committee helps us to identify the weakness and also helps us to achieve excellence in our endeavor. We were granted B (Pointer Score - 2.6) grade by the previous NAAC Peer team in February 2016 and have endeavored to implement their recommendations.

We do our best to provide all round development of our students in curricular, co-curricular and extra-curricular activities and in doing so we aim to achieve a contribution and commitment to a better India for all us.

The Internal Quality Assurance Cell has been instrumental in raising the quality of the college, implementing and enhancing the measures for quality improvement during the post accreditation period. This report is the outcome of the collective and collaborative effort of the entire college community. It has been prepared under the leadership of our Principal Dr. L. P. Deshmukh & IQAC coordinator- Prof. B. C. Patil (Department – English) who along with all the teaching staff members, meticulously collected, analyzed, documented and articulated all the records and activities, listed in the seven criterions for the last five years.

We have had several meetings with the staff, as the drafts of the report were being prepared, so that everyone would be familiar with the report and offer suggestions and indicate areas we had overlooked.

The college has also taken positive steps towards making the campus environmental friendly. No vehicle day is observed as a contribution to environment. For energy conservation, LED lights and solar lamp is installed in the campus. Water harvesting and RO system is installed for safe drinking and good health of all the staff and students.

The College has set the vision –

To broaden the horizon of knowledge to the laymen, to the masses from the nooks and corners of the valleys and villages. The visionaries of our ‘Samaj’ adopted the motto ‘Bahujan Hitai Bahujan Sukhay’, i.e. In the interest of masses, for the welfare of the masses.

Mission: We, at ‘Jalgaon District Maratha Vidya Prasarak Co-operative Samaj’s Shri. S.S.Patil Arts, Bhausahab T. T. Salunkhe, Commerce and Shri. G.R. Pandit, Science college, Jalgaon’. Popularly known as ‘Nutan Maratha College’ Jalgaon are committed to reach out to the poor, the needy and segregated, the deprived and hitherto neglected, to boost their courage and enkindle confidence in them so that they could claim higher education/ learning as their legitimate right.

The College aspires "*To be a distinguished Institution which provides high quality education*". It wants to provide such courses which will be uniquely valued by industry and provide a firm basis for its students to build challenging careers in their professional life.

The College has set the objectives -

- To offer qualitative valuable service in the field of education to the people in and around Bhusawal city.
- To develop responsible youth having social commitment.
- To aim at overall personality development of students fraternity through extracurricular activities in association with various social and cultural organization.
- To provide a platform to the students, by giving them an opportunity to face the challenges of the competitive world with utmost utilization of their potential in sports and other events.

About SRUSHTI EHS Consultant Services...



We, **SRUSHTI EHS Consulting Services**, are register under **Ministry of Micro, Small & Medium Enterprises (MSME), Govt. of India, ISO 9001:2015** certified firm.



We are pioneer in Khandesh region for providing the Environmental and Engineering solutions, Consulting services in the field of Environment, Health & Safety. We are work only for Quality Assurance up to Client Satisfaction. We provide Sustainable Environmental solutions that meet specific client's need by employing/partnering with highly educated & experienced team members as they will assist with in-depth Research, Proactive Strategy, Operative Implementation, and long term support to fulfill all of our client's needs. We are maintain high

standard of professional behavior & will comply with Regional, State & National regulations as well as guidelines.

We are experienced and expertise to conduct the **“Green Audit” (Environmental Audit)** of **Educational Institutes, Colleges, & Universities (as per NAAC Criterion VII)**. With this, we develop **“Green Practices”** at client's site. We are also arranging Environmental activities, Environmental Awareness Champaign on special occasions like World Ozone day, Environment Day, etc.

Apart from these, we are expert in following consulting services:

- **Green Audit/Environmental Audit**
- **Energy Audit**
- **Water Audit (Water Conservation & Management, Rain Water Harvesting)**
- **Gender Audit**
- **Fire Safety Audit** (As per NBC-2016, mandatory for Schools, Colleges, Hospitals, Commercial Shops/Complex, Residential & Commercial Buildings, Industries, etc.)
- **Air Quality Monitoring** (Ambient Air Quality & Workplace Air Quality)
- **Water Quality Monitoring** (Drinking water, Waste water, Ground water)
- **Solid Waste Management**
- **Noise Monitoring & Mapping**
- **Illumination Monitoring**
- **Carbon Foot Printing & Pollution Load Assessment**
- **Workplace Hygiene Monitoring**
- **Training & Hand on Demo** (Environmental equipment's, Fire Safety equipment's, Handling of Hazardous/Flammable Chemical, Gas Cylinder, Waste Material, etc.)
- **Training on Defensive Driving & Material Handling Equipment's (MHE)**

Audit Team

External Audit Member

Sr. No.	Name of Auditors	Designation
1	Dr. Kiran P. Pawar	Director, SRUSHTI EHS Consultant Service, Jalgaon

Internal Audit Team Members

Sr. No.	Name of Auditors	Designation
1	Dr. L. P. Deshmukh	Principal, Nutan Maratha College, Jalgaon
2	Prof. B. C. Patil	IQAC Coordinator, Nutan Maratha College, Jalgaon
3	Dr. Mrs. M. S. Patil	HOD, Dept. of Chemistry, Nutan Maratha College, Jalgaon
4	Dr. P. B. Patil	HOD Dept. of Zoology, Nutan Maratha College, Jalgaon
5	Prof. R. B. Deshmukh	HOD, Dept. of Physics, Nutan Maratha College, Jalgaon

Executive Summary

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 institute, which will lead for sustainable development.

Green auditing can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The green audit aims to analyze environmental practices within and outside the college campus, which will have the impact on the eco-friendly ambiance. It was initiated with the motive of inspecting the work conducted within the campus whose exercises can cause risk to the health of inhabitants and the environment. Through green audit, one gets the direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out green audit.

Objectives of Audit

The main objective of green analysis is to promote the environmental management and conservation in the campus. The purpose of auditing is to identify, quantify, describe, and prioritize framework of environmental sustainability in compliance with the applicable regulations, policies and standards.

The main objectives of carrying out green analysis are-

- To introduce and aware students to real concerns of environment and its sustainability.
- To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource used in the campus.
- To prepare a baseline report on sustainable development and other resources, measures to mitigate resource wastage and improve resource quality and sustainable practices.

Nutan Maratha College, Jalgaon is intensely concerned and totally believes that there is an urgent need to address these basic problems and reverse the trends. Being a leading institution of higher learning, the college has initiated ‘The Green Campus’ program four years back that actively promote the various projects for the environment protection and sustainability. The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. With this in mind, the specific objectives of the audit were to evaluate the adequacy of the management control framework of Environment Sustainability as well as the degree to which the Departments comply with the applicable regulations, policies and standards.



Phase I: Conduction of Audit

At the beginning of green audit, it is must to observe the supply, storing and consuming facilities are provided on the site. The Green audit team commits to:

1. Conduct site visit to locate the water points & Map them.
2. Locate the green landscapes.

3. Mark Native plants.
4. Compile the findings during visit.
5. Notice conditions of water fixtures (dirty, stuck, leaking etc.)

Phase II: Calculation

After completion of site visit, the audit team performed calculation to analyse the acquired data with reference to local bye laws (in India: NBC 2016) as base line. This enables to determine whether the premise is covered with green and well shaded.

Based on the calculation, the landscape management strategies have to be defined and implement in the respective premises.

Phase III: Audit Report

The team prepares detailed report based on procedure mentioned above. The audit report consists:

1. Observations done during audit.
2. All the measurements, calculations.
3. Summary and conclusions based on the calculations.

Phase IV: Discussion & Implementation

After formation of audit report, the audit team will hold meeting with the respective project team to discuss the current and future scenario towards the landscape management. The key discussion points are:

1. Possible water conservation measures & their implementation in landscape.
2. Areas where water can be conserved like rainwater harvesting & wastage of water can be minimized

Later, the project team will implement the measures that are finalized in accordance to the discussion and meetings held with audit team.

Phase V Review

After the implementation of measures, the review and maintenance of the same is much needed. Because, the continuous monitoring of the measures can only justify and revise the water savings occurring in the premises.

The formation of "Sustainable Cell" in the premises will help in proper & continuous execution of the measures, a This cell is also responsible to educate the occupants regarding effects of water management along with the finding and installing any new techniques at the project site.

LAND SCAPE USE

LOCATION	LENGTH (M)	WIDTH (M)	AREA (M)
New Science Building	57	8	456
Chemistry	31.70	11.4	361.38
Main Office Building (upto YCMOU)	97.5	11.4	1111.5
Library	27.0	25.0	675



Land scape area covered by College Buildings - 1



Land scape area covered by College Buildings - 2

Nutan Maratha College, Jalgaon and “Environment Committee” to perform various activities in the field of Green Campus. College is adopting zero waste discharge facility to manage the solid, liquid and e-waste.

Solid waste management: Around 03 kg/ day food and other waste is generated in the form of biodegradable solid waste from the campus. It is frequently dispatched to the solid waste collection vehicle of Municipal Corporation. With regard to green waste generated on campus, which includes grass clippings, leaf litter, and other landscaping related refuse is being treated for composts.

Liquid waste management: The College has designed the outflow of the liquid waste in such a way as to prevent contamination in the campus. A properly constructed leakage proof sewer system is used for drainage.

e-waste management: All electronic gadgets are periodically repaired for efficient utilization and replaced under buy back scheme of supplier. Hence, minimum e-waste is generated in the campus. The remaining non-working computers, monitors and printers are discarded and scrapped on a systematic basis. If some parts are useful, in other systems they are kept aside for future use.

Land Scape – Water Schedule

MONTH	NO.OF DAYS	REMARK
JUNE	15	ALTERNATE DAYS
JULY	6	ONCE IN A WEEK
AUGUST	6	ONCE IN A WEEK
SEPTEMBER	10	TWICE IN A WEEK
OCTOBER	10	TWICE IN A WEEK
NOVEMBER	10	TWICE IN A WEEK
DECEMBER	10	TWICE IN A WEEK
JANUARY	10	TWICE IN A WEEK
FEBURARY	10	TWICE IN A WEEK
MARCH	15	ALTERNATE DAYS
APRIL	15	ALTERNATE DAYS
MAY	16	ALTERNATE DAYS

College is concern about water conservation, so the college authority save the runoff of rain water from the terrace of the buildings constructed in the college campus by Rain water harvesting structures. Rooftop of main building is used to collect the rainwater, which is used by department of chemistry for regular practical sessions. The runoff from the unpaved area is intercepted at certain locations by collection trenches. This runoff eventually facilitates groundwater recharge.

Colleges willingly accepted the green practices and strictly follow them. The college conducts campaign for students and faculty to understand the importance of environmental protection and be mindful about saving energy. The authority frequently appeals to the students and faculty to maintain the tradition of no vehicle day on any one day in month. To understand the plant biodiversity of the campus, the college has been conducting census of tree, herbs and shrubs every five years since 2020. As per recent survey (2022), the college campus has rich plant biodiversity having more than 250 + plants. Around 20% of the total campus area covered with plantation more than 250 plants and trees species thus giving pure oxygen to students and staff and making campus green and beautiful.

Statement of Assurance

The audit has been conducted in accordance with the standard procedures for the professional practice of internal auditing.

In our professional judgement, sufficient and appropriate audit procedures were completed and evidence gathered to support the accuracy of the conclusions reached and contained in this report. The conclusions are based on a comparison of the situations, as they existed at the time of the audit with the established area.

Methodology of Audit

In order to meet its objectives, this audit combined physical inspection with review of relevant documentation and interactions with departmental staff members and students.

- **Review of the Documentation:** For the purpose of this audit, Green audit framework was reviewed.
- **Interviews:** Interviews were conducted with the principal, departmental faculties and students.
- **Physical Inspection:** The audit team was conduct physical observation in the college campus to inspect the green practices.

Summary of Findings

The main findings of the audit show that, all the department staff and students are aware about the needed for environmental protection at a general level. It was also observed that a number of best practices such as maintaining the collection of waste separately, introduce rain water harvesting to new building structures, implementing plastic free campus etc. are followed in the college premises.

Audit framework and detailed findings

The following audit framework is used for conducting Green Audit in 2021-22. The frame work also lists the finding and also observations for every criterion.

Criteria- 1: Deployment of Environment Committee

Objective: Development of the Environment Committee who set the best standards in the field of environmental monitoring system through different activities.

Activity: Creating the awareness among all students, staff members & all stakeholders of institute regarding clean & green environment.

Audit Observation: For this purpose, college management deployed the some staff members and prepared designated “Environmental Committee” for the year 2021 to 2024. The committee as follows:

“Environment Committee”

Sr. No.	Name of the Members	Department	Designation
1	Dr. Madhuri S. Patil	Chemistry	Chairperson
2	Prof. B. C. Patil	English	IQAC Coordinator
3	Dr. P. B. Patil	Zoology	Member
4	Prof. R. B. Deshmukh	Physics	Member
5	Dr, K. B. Patil	Electronics	Member

The above committee members are responsible for conducting different environmental activities from time to time. As evidence, the institute celebrates World Environment Day on 5th June of every year. Institutes involved in Tree plantations in and outside the college, arrangement of Guest lectures on current environment topics, distributing plant species instead of gifts, etc. The committee members continuously spread the deep knowledge regarding the importance of Environment through different competitions like Poster presentation, PPT presentation, Rangoli competitions, and the theme of the same is environment & its factors.

Criteria- 2 (A): Waste Generation and Management

Objective: Maximize the waste recycled and minimize the quantity of non-recycled refuse.

Activity: Segregation of waste

Audit Observation: Waste Material is segregated as per category like Paper, Cardboard, Scrap Wood, Scrap Metal, Plastic scrap, glass, laboratory rags etc. Each waste is stored at departmental level and periodically sending to other purposes.

Type of waste	Audit Observation
Paper Waste	<ul style="list-style-type: none"> • One-side rough papers are used for the printing of Notices, Time Tables etc. in each department. • Email and Mobile media communication is used for minimize the use of paper.
Scrap Material	<ul style="list-style-type: none"> • Plastic bottles, caps and other waste material are stored separately at departmental level and handover to local scrap vendor system as a scrap material
Glass Waste	<ul style="list-style-type: none"> • Empty chemical glass bottles are stored separately and periodically sending as a scrap material to registered agency.
Construction Waste	<ul style="list-style-type: none"> • In case of small expansion, construction waste is use for land filling and landscaping within the college premises.
Electrical Waste	<ul style="list-style-type: none"> • Electrical waste like damaged electrical board, switches, cut wires are collect by electrician and replace this with new one and remaining wastage is sold as scrap. • Electrical waste related to computer, key boards, and mouse is collect by Computer science department for repairing and replaces the damaged one and remaining wastage is sold as scrap.

Criteria- 2 (B): Waste Generation and Management

Objective: Collection of waste.

Activity: Students as well as faculties of different department concern about waste collection. They do not throw the paper, plastic and other solid waste in the surrounding premises of college campus.

Audit Observation: In addition, separate plastic dustbins (for dry & wet solid waste) are installed at various locations in the college campus for collection of waste including administration office, college campus, garden area etc. Jalgaon Municipal Corporation collects the stored waste on every day.

Criteria- 2 (C): Waste Generation and Management

Objective: Plastic free Campus.

Activity: Motivate students about harm of plastic carry bags and items to convince them for no use of plastic in college premises.

Audit Observation: Proper dustbins are provided to each department. To aware all students as well as faculties of different department about “No Use of Plastic” in college campus, awareness boards are display at various location in the college campus.

Criteria- 3 (A): Water Management & Conservation

Objective: Use of water for drinking purpose.

Activity: Provision of water cooler

Audit Observation: As a part of an essential facility, a water cooler is installed for the drinking water purpose for students and staff members. Frequent cleaning is also carried out to avoid the contamination and maintain the hygiene condition. The outlet of the water cooler is provided to the near garden area to use the water for gardening purposes and avoid the wastage of water.

Criteria- 3 (B): Water Management & Conservation

Objective: Water conservation.

Activity: Rain Water Harvesting

Audit Observation: Surface & roof water harvesting facility is provided to the main building, & college campus ground. Due to this facility, bore wells are charged naturally and the ground water table may increase. Watering in Botanical garden is carried out using the wastewater coming from Botany and Zoology lab. Many plants in the campus are watered using wastewater from drinking water tank. These plants are watered using canals as well as pipes.



Rain Water Harvesting Area

Sr. No.	Name	Quantity	Location
1	Rain water Harvesting Pit	One	Back side of Bhaskaraacharya Bhavan
2	Rain water Harvesting Pit	One	Backside of Chemistry Lab

One of medium of harvesting rainwater is providing the incoming rainwater directly to the ground. This will increase ground water table of the location and also helps in achieving the ground water at same or at less level than the existing level. Further, the rainwater is reused in the landscape of campus.

Water Audit

(Academic Year 2021-22)

Water User Profile:

Water User Includes students, staff, visitors etc.

- a. Total number of water users : Approx. 1500
- b. Number of Employee: (Teaching + Non Teaching) = 110
- c. Number of students : 3606
- d. Number of visitors (daily Average) : 15 to 20 Approximately
- e. Average working days: 06 per week
- f. Office timings: 7.30 to 5.30
- g. Rain water harvesting system availability : Yes
- h. Is rainwater harvesting system working? Yes
- i. Daily water supply (liters) :1200 liters approx.

Assessment of water requirement

Sr. No.	Site	Total no. of Sources	Measurement of water Uses (Daily)				
			Rate of Discharge (Liter/min)	Average Duration of Use (min)	Average Quantity per use (liter)	No. of Uses (No.)	Total Daily Use (liter)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Urinals	14	01	2.00	2.00	1500	3000
2.	Bathroom	20	01	2.00	2.00	1500	3000
2.	Laboratory	17	05	05	25	1000	25000
3.	Other (Drinking purpose with RO)	01	0.50	10	05	1000	5000
4.	Gardening Purpose	01	10	5	50	100	5000
TOTAL							41000

Water Source & Storage:

Water from tube-well & Mahanagarpalika is directly pumped to the overhead tank and underground water tank.

Criteria- 3 (C): Water Management & Conservation

Objective: Water Conservation.

Activity: Checking of water sources regularly

Audit Observation:

- The storage (overhead/underground tank) checked periodically for any leakage.
- The departmental Tap was checked periodically to prevent from any leakage.
- The leakage Tap replace by new one.

Criteria- 4 (A): Energy Consumption (Electrical Energy)

Objective: To save the electrical energy.

Activity: Installation of “Solar Lamp” at ground of college campus.

Audit Observation: College management has a positive approach for the installation of Solar panels to save electrical energy by using natural resources. The environmental committee is in the planning phase for the same. Currently one solar lamp is installed and used for lighting purposes in college campuses.



Solar Lamp

Criteria- 4 (B): Energy Consumption (Electrical Energy)

Objective: To save the electrical energy.

Activity: Planning for Installation of LED light at administration.

Audit Observation: Currently the college used traditional tube lights (61 nos.), halogen lights (03 nos.) and LED lights (06 nos.). College management is in the planning phase to install the LED lights at the office and laboratories area. It will conserve electrical energy instead of tube lights. College used natural light as maximum in daytime to reduce the load on electricity.

Particulars	Tube Lights	LED's (Tube & Bulb)
Number of Lights	50	570
Watt/light	40	08
Average Cost/light (Rs.)	60	250
Initial Investment (Rs.)	3000	142500
Kwh energy consumed by the lights	14	1.75
Cost of energy (Rs. 5/kwh) (Rs.)	70	8.75
Kwh energy consumed per month 8 hours working/22 days	2464	308
Avg. Cost of energy consumed per month (Rs.)	12,320	1,540

Average consumption & Cost related to use of lighting system in college premises

Criteria- 4 (C): Energy Consumption (Electrical Energy)

Objective: To save the electrical energy.

Activity: Conservation of Electrical Energy at Departmental Level

Audit Observation:

- All laboratory having panel boards MCB switch to control the electrical supply within the department. The responsibility is given to non-teaching staff to “Switch-off” this switch without any ignorance to avoid the wastage of electrical energy.
- Maximum area of the college building having the sunlight throughout the day. It reduce the burden on electricity. Natural light (Sun light) is use at the practical labs, classroom, admin office, etc.
- Signboards like “Switch off the fans / light when not in use” are displayed in the departments.
- The water pumps are regularly maintained for minimum consumption of electricity.
- College management thoughts about solar panel installation to save the electricity.
- Power saver lights, five star rating AC systems, LCD monitors, Branded fans are used to minimize the consumption.

Criteria- 5: Energy Consumption (Transportation)**Objective:** To save the fuel energy.**Activity:** Motivate to students and faculties for reduce the use of vehicles in college campus.**Audit Observation:** The Environmental committee is declared as a “No vehicle day” once a month to minimize the use of personal vehicles within the college campus. Students as well as faculty member’s respond to this theme very well. To motivate and educate the students regarding minimum use of vehicles, the “Cycle Day” programme is arranged by college facilities.**Criteria- 6:** Energy Consumption (LPG Cylinder)**Objective:** To save the LPG energy.**Activity:** Conserve the LPG at departmental Level**Audit Observation:**

- The gas burners, tubes are checked periodically to prevent the leakages of gas.
- Slow flame is adjusted during the practical work to minimize the excess use of gas.
- The practical is listed as per use and nonuse of LPG.
- The empty cylinder are stored centrally and labeled as “EMPTY”
- The use and requirements of each department about LPG is monitored by concern Lab Attendant.

Criteria- 7: Air Quality of the Campus**Objective:** To assess the air quality of Campus.**Activity:** The status of ambient air pollution will be monitored by using High Volume Sampler (Envirotech APM 460 BL Reparable Dust Sampler-RDS). SPM samples were collected with the help of a high volume sampler on a cup for 24 hr. with air flow rate of 1- 1.5 m³ min⁻¹. The difference in initial and final weights of the cup and filter paper was given the total quantity of SPM collected over the 24 hr period. Measurement of SO₂ (µg m⁻³) in the ambient air will be

analyzed by the West- Gaeke method (1956) and NO₂ (µg m⁻³) gas by the modified method of Jacob and Hochheisher (1958).



Ambient Air Monitoring Observations:

Location Code	Locations	Parameters		
		SO _x	NO _x	SPM
S-1	Main Gate	30.18	58.71	218.8
S-2	Left Side of the college	30.14	59.23	186.8
S-3	Right Side of the college	31.28	59.76	192.2
S-4	Back side of the college	31.65	50.06	188.5
NAAQS Limits		80	80	200

Status of Ambient Air Quality within the premises of College

Criteria- 8: Monitoring and Assessment of Noise

Objective: To measure the ambient as well as workplace noise within the college campus.

Activity: To measure the Noise Quality by Noise Level Meter.

Audit Observation:

Noise has been recognized as ambient air pollutant. Standards in this regards are laid down under Environment (protection) rules, 1986.

Sr. No.	Category of Zone	Permissible Limits dB (A) Leq	
		Day Time	Night Time
1	Industrial Zone	75	70
2	Commercial Zone	65	55
3	Residential Zone	55	45
4	Silence Zone	50	40

Permissible Limit of Noise in Different Zones

- The permissible limits are count as per the zones. The noise monitoring generally carried out at day time and at night time.
- The day timing is considered as morning 06:00 am to night 10:00 pm and the night timing consider as night 10:00 pm to morning 06:00 am.
- As per the observations are recorded the day time and night time standards are used for the comparisons.
- Zone assortment may be carried out by Municipal Authority of that particular locations or city.
- Hospitals, **Educational Institutes**, Governmental offices, Session courts and Police Stations include in “Silent Zone”
- So “Silent Zones” standards (Day Time only) used for the comparisons.

Sr. No.	Locations	Noise Level in dB (A)		MPCB Limits
		Day Time	Night Time	Silent Zone
1	Main Entrance	74.2	NA	
2	Central Point of Ground	69.6	NA	
3	Entrance Main Building	67.8	NA	
4	Principal’s Cabin	51.5	NA	
5	Faculty Staff room	42.4	NA	
6	Library (Office)	39.1	NA	

7	Library (Reading Room)	37.6	NA
8	Botany Laboratory	46.3	NA
9	Admin Office	49.6	
10	Chemistry Laboratory	52.6	NA
11	Geography Laboratory	51.9	NA
12	Physcis Laboratory	49.4	NA
13	Backside of college	52.8	NA
Classrooms			
14	Class Room No. 1	53.8	NA
15	Class Room No. 3	55.2	NA
16	Class Room No. 5	53.9	NA
17	Class Room No. 7	56.4	NA
18	Class Room No. 10	51.3	NA

Observation of Noise Level Monitoring (A)

Except Main gate, center point of ground and main entrance of building, all other observations are within the prescribed limits of Environment (protection) rules, 1986. Due to nearby areas the noise level high at Main gate and Centre point of ground.

Criteria- 9: Green Campus with Botanical Garden

Objective: To increase the Green Cover with different tree/plant species within the college campus in the form of botanical garden.

Activity: Develop & maintained the botanical garden. Tree plantation in and near by area of college.

Audit Observation: College & staff members are taking the efforts to develop & maintain the botanical garden within the college premises. Total 33 plant species with different families are present in the botanical garden. The details are shown in the table below. To understand the plant biodiversity of the campus, the college has been conducting a census of trees, herbs and shrubs every five years since 2020. As per recent survey (2023), the college campus has rich plant biodiversity having 250 + plants. List of the plants is mentioned below:

Sr. No.	Botanical Names	Family	Common Name	Total in campus
1.	<i>Azadiracta indica</i>	Meliaceae	Kaduneem	44
2.	<i>Caryota urens</i>	Arecaceae	Bottle Palm	25
3.	<i>Cocus nucifera</i>	Arecaceae	Coconut	02
4.	<i>Polyalthia longifolia</i>	Annonaceae	False Ashok	20
5.	<i>Tecoma stans</i>	Bignoniaceae	Yellow Bell	02
6.	<i>Murraya paniculata</i>	Rutaceae	Kamini	04
7.	<i>Annona squamosa</i>	Annonaceae	Sitaphal	02
8.	<i>Citrus ourientinum</i>	Rutaceae	Lemon	02
9.	<i>Laecuna lucocephala</i>	Mimosaceae	Subabhul	10
10.	<i>Thuja occidentalis</i>	Cuprassaceae	Mayur Pankhi	03
11.	<i>Delonix regia</i>	Caesalpinaceac	Gold Mohar	11
12.	<i>Phyllanthus emblica</i>	Euphorbiaceac	Avla	03
13.	<i>Acharus sapota</i>	Sapotaceae	Chiku	02
14.	<i>Melingtonia hortensis</i>	Bignoniaceac	Buch	02
15.	<i>Psidium gauva</i>	Myrtaceae	Peru	02
16.	<i>Dalbergia sisoo</i>	Fabaceae	Sisam	20
17.	<i>Gmelina arborea</i>	Verbinaceae	Shivan	02
18.	<i>Pithecelbium dulce</i>	Mimosaceae	Vilaiti chinch	05
19.	<i>Ficus glomerata</i>	Moraceae	Umber	10
20.	<i>Albezia lebbec</i>	Mimosaceae	Shiris	09
21.	<i>Terminalia catapa</i>	Combretaceac	Badam	05

22.	<i>Tamarindus indica</i>	Caesalpinaceae	Chinch	05
23.	<i>Eucalyptus globulus</i>	Myrtaceae	Nilgiri	04
24.	<i>Peltophorum peltocarpum</i>	Caesalpinaceae	Peltophorum	17
25.	<i>Cassia fistula</i>	Caesalpinaceae	Amaltas	02
26.	<i>Mangifera indica</i>	Anacardiaceae	Mango	02
27.	<i>Ficus bengalensis</i>	Moraceae	Vad	08
28.	<i>Thavethia nerifolia</i>	Apocynaceae	Yellowkanher	04
29.	<i>Alstonia scholaris</i>	Apocynaceae	Saptapurne	10
30.	<i>Caesalpinia pulcherrima</i>	Caesalpinaceae	Shankasur	02
31.	<i>Ixora coccinia</i>	Rubiaceae	Ixora	02
32.	<i>Rosa indica</i>	Rosaceae	Rose	05
33.	<i>Hibiscus rosasinensis</i>	Malvaceae	Jaswand	02
34.	<i>Bougaivellea spectabilis</i>	Nyctaginaceae	Bogenvel	Hedge plants
35.	<i>Pongamia Pinnata</i>	Fabaceae	Karanj	02
36.	<i>Ocimum Tenuiflorum</i>	Lamiaceae	Tulsi	Bush
37.	<i>Ornamental plants in earthan pots</i>			

Some Plant Species available in the Botanical Garden



Facilities available at College Premises

- College provided Sanitary Napkin Vending & Disposal machine at girl’s washroom.
- Arrangement of walkway ramp for physically handicap students.
- Separate & clean washrooms, urinals, toilets for students & staff members.
- College provides sufficient numbers of Fire Extinguishers at every laboratories, adminbuilding, corridors etc.



Sanitary Napkin Vending & Disposal Machine



Fire extinguisher Ball and cylinder

Best Practices conducted by the College

- College celebrates “World Environment Day” on 5th June every year.
- The Environment Committee every year has been managed a programme on tree plantation and their nurturing to aware the students and the nearby society about the maintenance of the environment. The result is that, they have a beautiful green campus.
- World Ozone Day is celebrated each year on 16th September to spread the awareness among the students about the depletion of the ozone layer and to take certain steps for the solution of the problem.
- College management, Members of Environment Committee believe that, our environment is becoming increasingly contaminated because of the technological development. To aware the people and students about it, Earth Day is celebrated on 22 April every year.
- College provides Fire Extinguishers at science laboratories to tackle the fire emergency.
- The college has been taken initiative to make pollution free campus from the year 2020-21. The college started “No Vehicle Day” once in a month to reduce the air pollution and noise pollution.
- The college also tries to prohibited mobile ban or limited use of mobile in the college campus. The mobiles of official persons kept on silent mode in the college campus.
- The college also invited guest to delivered lecture on environment topics.
- For all students of first year, university has started Environmental Studies to aware the students to conserve of environment.
- The college has also kept dustbins at different places. The separate store room is created to keep all the dead stock material of the college.
- The college planted trees around the campus are to reduce pollution.
- The college also organizes Fire Cracker less campaign in the city.
- The wastages are not burns and it is composed in the vermicomposting pit.
- The roof water harvesting is implemented in the college campus.

Photographic Plate



Library Reading Room – Utilize Natural Light



Admin Office Cabin – Utilize LED Light

Recommendations

Following the audit, some recommendations were made to the college authority by external audit team.

Sr. No.	Criteria	Recommendations
1.	Illumination Monitoring	It is recommended that to conduct the Illumination study to check the light intensity with in college campus.
2.	Vehicles	Monitoring the PUC of every vehicle within the campus at least once in a year to minimize the vehicular pollution load.
3.	Firefighting Training	It is recommended that, firefighting training must be provided to lab assistants of science laboratories & official persons from admin block from external competent agency to tackle the fire emergency.

Declaration

I agree with all the recommendations and observations mentioned in this report.

Original signed with college seal by,

Dr. L. P. Deshmukh
(Principal)