



Rayat Shikshan Sanstha's
Mahatma Phule Mahavidyalaya, Pimpri, Pune
*Reaccredited with 'A' Grade by NAAC/ DST-FIST funded /An ISO 9001:2015 Certified College
Affiliated to Savitribai Phule Pune University, Pune (PU/PN/ACS/053)*

2021-22

**GREEN /
ENVIRONMENT
AUDIT**



Karmaveer

BASELINE ENVIRONMENTAL ASSESSMENT (2021-22)



RAYAT SHIKSHAN SANSTHA'S

MAHATMA PHULE MAHAVIDYALAYA

PIMPRI, PUNE - 411 017.

(Affiliated to Savitribai Phule Pune University)

1. Introduction

COLLEGE INTRODUCTION:

Rayat Shikshan Sanstha's Mahatma Phule Mahavidyalaya, Pimpri, Pune-17.

We are proud to be Rayat Shikshan Sanstha's well-established Arts, Commerce and Science College over the last four decades. We are NAAC Re-accredited College with A grade.

Year of Establishment: June 1983

Year of Permanent Affiliation: CA/2107 date: 20.10.1997

Year of Last Reaccreditation and rating: Sep 2017 'A' Grade, CGPA: 3.16

Type: Private and Aided

Category: Affiliated

Following are some of the features of the college:

- U.G Programmes
 - B.A., B.Com. B.Sc., B.B.A. (C.A.), B. Voc. (Mass Communication)
- P.G Programmes
 - M.A. (Economics, Marathi, Geography, History, Hindi)
 - M.Sc. (Organic Chemistry, Microbiology)
 - M.com. (Banking, Costing)
- Highly qualified and experienced teaching faculty.
- "Earn and Learn Scheme", Scholarships from State & central Govt. for SC/NT/ST/OBC and economically backward students and other merit scholarships.
- Well established library with book bank and internet facility.
- Well-equipped Science Laboratories, English Language Laboratory, Computer Laboratory and Commerce Laboratory.
- Gymkhana, NSS, cultural activities and curricular, co-curricular and extra-curricular activities.
- Placement Cell, Recruitment Drives, Student Health Checkup, Women Empowerment Programs.
- Over 45 skills based & value added Short-Term Courses.
- Alumni Association.
- Competitive Exam Guidance Center.

History of College

In the years after the establishment of the Sanstha, in course of time, along with the industrial development a new class of workers arose. It was uneducated but trained in trade. This community was predominantly inhabited in the industrial areas. Pimpri-chinchwad industrial development sector has been one of them. Perhaps the largest in Asia. Incidentally, it is on the periphery of Pune the center of education. However, education was out of reach for the children of this class. Rayat Shikshan Sanstha, on the line of its mission, changed the focus from rural to semi urban, & opened new college in this area in 1983. At its inception, it was a two faculty college with limited options of the courses. With increasing number of students the subject options & departments increased which led to the development of the faculties right up to the post graduate level. Not only this, but acknowledging the needs of the industrial areas, science faculty was introduced in 1992. Today there are as many as 19 departments under the three faculties. "Arts, Commerce and Science College, Pimpri, Pune-17 was renamed as "Mahatma Phule Mahavidyalaya, Pimpri, Pune-17" as a homage to the great social reformer in Maharashtra.

1. COLLEGE VISION & MISSION:

VISION

Education for masses is principal instrument and the tool for eradication of all pervasive social evils and desirable effective social change. 'Education through self-help' is a significant and chief drive of social change to achieve different tasks of nation building by establishing social equality and social justice.

MISSION

In order to achieve the vision as to impart higher Education through the University formal courses and non-traditional self-financing and short term courses. By imparting higher education for the upliftment of the backward, the depressed, and the underprivileged and tribal communities of the region. To inculcate values and virtues among the students as mentioned the aims and the objectives of the college.

OBJECTIVE OF THE COLLEGE:

Following are the objectives of the college:

- To educate economically, socially and academically weaker students in Pimpri-Chinchwad Corporation area.
- To organize various co-curricular and extra - curricular activities for overall personality development of the students
- To conduct skill based vocational short - term courses to provide employability.
- To offer wide range of academic programmes at UG and PG level.

Perspective Plan

- To develop mechanism under NEP 2020 and AI Policies for directing academic profile of the college.
- To apply for additional division of F.Y.B.Sc..
- To introduce UG at tertiary level in Zoology, Botany, Mathematics, Statistics and Political Science,
- To introduce B. Com in IT, B. Sc. in Psychology.
- To introduce PG program in English, Mass Communication, M. C. A. and PG Diploma in Accounting and Taxation,
- To strengthen further locally relevant skill development courses.
- To organize timely relevant activities and sign linkages/ MoUs,
- To strengthen further remote access to TL. Material/ resource through LMS (Learning Management System),
- To increase e-Content development share in TLP,
- To set up Research Centre,
- To set up lecture recording studio/ system,
To initiate/ make provision for research seed money to boost research culture amongst students and faculty members.
- To initiate inter-departmental faculty exchange activities,
- To increase/ purchase number of books in the library,
- To seek increase in industrial financial support,
- To enrich laboratories and make them well-equipped.
- To increase number of research publications in UGC approved/ grade one journals,
- To undertake collaborative research projects by the faculty, To tie up with more professional and institutional bodies,
- To develop & enrich institutional repository.
- To promote and implement plastic free and zero garbage campus,
- To improve further digital library services and digital record room facility.
- To develop central office into automated mode,
- To strengthen further relationship with alumni,
- To increase students' placement rate,

- To develop 'Think globally, Act locally' policy,
- To reach to ease of doing policy in all its activities,
- To renovate/reconstruct college infrastructure in the wake of changing scenario in higher education, and to go for autonomy in the wake of NEP 2020 guidelines.

Mahatma Phule Mahavidyalaya, Pimpri, Pune-17 & Campus-2 Sambhajinagar, Cinchwad demonstrates its commitment to implement sustainable solutions in different ways. It has taken a number of positive steps to reduce possible environmental impact. The management is keen on accepting new ideas of resource management.

The environmental assessment of an educational institute being carried out in different phases.

- To establish a baseline of existing environmental scenario
- To provide basis for improved sustainability
- To promote environmental awareness through the assessment process
- To create an educational document for future use

In view of making green and eco-friendly campus the organization has taken an important step to understand the environmental parameters within the campus. This report serves to highlight, the efforts towards greener campus. The first step taken in this direction is establishing a baseline of existing condition.

The different environmental criterias with their current status, action being taken by an institution and effective ways to improve the actionable points being highlighted in this report. Sensitization of all the stakeholders of an institution towards eco-friendly campus is very crucial at this juncture.

2. Environmental criteria's

2.1. 'Know green and think green' there is promoted on the campus

Governance and Leadership

The college has clear policies, principles or goals that provide direction for staff, administrators, and other members of the campus community. Clear decision-making power and reporting mechanisms with responsibilities to monitor, report, give advice about, and promote action and awareness around environmental sustainability.

Action:

The College currently has an Environmental Advisory Committee (EAC), which is composed of members each from different stake holders of the college. It is co-chaired by a student and by the head of facilities. The EAC has been very active in discussing and advising the College on campus sustainability issues.

Environmental Advisory Committee (EAC) – (2021- 2022)

SN	Name of the Committee Member	Designation
1	Dr. Pandurang Gaiwad	President, (Principal)
2	Miss. Swapana Hajare	Coordinator
3	Mr. Babasaheb Pawal	Member
4	Dr. Shubhada Londhe	Member
5	Dr. Indira Patil	Member
6	Mrs. Ratnprabha Naik	Non-Teaching representative
7	Mr. Krushna Jadhav (S.Y. B.A.)	Boys representative
8	Ms. Pratiksha Chawak (S.Y. B.Sc.)	Girls representative

Since commencement, the committee has discussed such topics as campus energy use, recycling of plastic, reduce use of plastic, composting of dining hall waste, saving water and sustainable use of resources.

Dining

The college campus accommodates 2536 members including students and staff. The college authorities have not appointed any food supply vender within the campus area. Due to Covid-19 pandemic the functioning of the college was partially through online platform & partially physical presence, so there was partial physical utilization of the campus.

Action: The waste being collected by Municipal corporation system from campus area on daily basis.

Vermicomposting pit is maintained well.

Water conservation and prevention of water wastage

The source of water for the college is Municipal corporation water supply for drinking and ground water (Bore well) for other uses. The college has 7 water filters & coolers with 40 Litter LPH capacity and filter water supplied within the premises for drinking purposes. The water quality monitoring is being done regularly. The water consumption within the campus is controlled by campus authority. The storage tanks are as follows

Underground tanks 1: Capacity-25000 litrs

Overhead tank : Capacity - 5000 lits

So total water storage capacity 30,000 Litters

The approximate water uses on any working day during working hours can be summarized as follows.

Sr.No	Activity	Utilization (Student + staff)	Total Lits (Approx.)
1	Drinking	2536 x approximately 1 lit	2500
2	Toilet	2500 x approximately 3lit	7500
4	Watering plants		500
5	Spraying on play ground		500
6	Canteen area		N/A
			11000

Action:

- 1) 1) Awareness on minimum and adequate water use.
- 2) Regular water quality monitoring. (Water & Waste water).
- 3) Well planned experimental schedule of different classes. Laboratory waste water discharged into soak pit.
- 4) The design of urinals Indian & western Washrooms, Urinals & Latrines- 19 (Girls, Boys & staff) was made in such way that it causes minimum wastage of water. Drainage water from urinals discharged into Municipal drainage system.

Solid waste management

The college working hours are from 7.45 am to 5.30 pm. There are different activities and projects being implemented in different departments. The number of students in the campus along with staff members goes to approximately 2536.

Due to covid-19 Situation College was partially open in first half & in second half college activities were regular.

The daily solid waste being generated in the camps categorized in the following way.

S.No	Activity	Utilization (Student + staff)	Total kg.
1	Classroom 35 + Seminar Hall 2 + Staffroom 3 + Girls & Boys common room 2 + Exam section 1 +Reception area1+ Sport complex Auditorium)	14 Dustbin x 300gms	4 kg approximately
2	Laboratories 5 + Chemical store 1	Labs x 250 gms	1 kg approximately
3	Canteen/snaks/meal	Students & staff used for snacks or meal	5 kg approximately
4	Sweeping and cleaning	Campus	15 kg approximately
5	Admin block	All offices	3 kg approximately
			28 kg approximately

Action:

- 1) Usage of recycled paper bags was promoted among students by displaying boards like 'Say No to Plastic'
- 2) Reduce – Reuse – Recycle methods are followed – Different type of chemicals from different laboratories and chemical stores being returned to respective vendor after expiry date.
- 3) Office paper waste being collected and given to vendor for recycling on annual basis.
- 4) Examination paper being retained in the institution for 3 years and then given to vendor for shredding which in turn being sent for pulping for generating recycle paper.
- 5) The collection bins are made for specific types of waste.
- 6) The number of printouts has been reduced from admin blocks and computer laboratories.

Hazardous waste management

The college authorities are well aware about the monitoring and management of chemical-intensive process. This process considers toxicity, downstream impacts, staff safety, cost and packaging.

Action:

- 1) The college performs well in terms of custodial chemical use, monitoring their use, minimizing their impact, and keeping employees and others safe.
- 2) All the chemicals are bought from chemical supply vendors, by contracting on annual basis. The college reduces costs, limits inventory, limits overuse, and help maintain consistent chemicals (consistency helps keep workers safe).

E-waste management

The college has a system to collect e-waste separately in specially designated bin. The specific authorized vendor has been contracted for collection and disposal.

Carbon dioxide neutrality

Carbon dioxide neutrality has been maintained on the campus by developing greenery with available plants. The 10 to 20 % area is occupied by greenery by different type of plants. The list attached with its significance.

This 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 programme.

Campus is located in the vicinity of various (species) trees. Various tree plantation programs are being organized during the month of July and August at college campus

and surrounding villages through NSS unit. This program helps in encouraging eco-friendly actions in the environment which provides pure oxygen within the institute and awareness among citizens. The organization is keen on providing hands on experience to students by providing opportunity to participate in various government initiatives. Students are in real sense being connected to the community at large. The organization has decided to adopt certain villages and to work for rural development purpose.

Action:

1) The campus is situated in such an area that there is no any other type of disturbance.

2) Specific strategies and plans in place in order to reduce transportation impacts.

a) The layout of the campus is relatively open with much green space, thus keeping the amount of impermeable surface area below 50%

b) The college has a canopy of trees and plants that make the environment healthy.

c) Plants were selected with low maintenance requirements and that otherwise fit the local ecosystem (i.e. provide habitat for native species of insects and birds).

d) At present the indigenous trees are dominant all over the campus. The medicinal plants planted and maintained in the campus. Some plants mentioned in list of medicinal plants are really important. The college has developed and maintained “Environment Interpretation Centre” which is being utilized for educational and research purpose.

Campus Culture and Environmental Awareness

The college has aim to educate all students in the area of environmental studies in an interdisciplinary framework, and provide adequate training for those students who wish to pursue environmental research in accordance with engineering or environmentally-related career choices.

Action:

1. College has developed a clear assessment of the environmental studies curriculum for faculty, students, and administration.
2. The college undertakes various activities through effective use of ongoing schemes like N.S.S., through Earn and Learn Scheme. In these schemes students work for beautification of campus, water and power management, the biodegradable and non-biodegradable waste segregation. To create eco-friendly awareness among the students, college arranges special programmes by inviting the eminent personalities, who in turn train and educate stake holders. Students are encouraged to participate in eco-friendly activities by making the activities of eco-club part of the curriculum.
3. College authorities have created an atmosphere of awareness and sense of responsibility within the campus regarding environmental issues. Engaged students, faculty, staff and administration in cooperative analysis and response to these issues.
4. College has developed its own environmental policy for the campus and displayed it everywhere.

Environment Policy

We are committed to protect Environment, Occupational Health and Safety of all through our work and activities. We Endeavour to...

Mahatma Phule Mahavidyalaya, Pimpri, Pune-17 is committed to reduce its impact on the environment. We will strive to improve our environmental performance over time and to initiate additional projects and activities that will further reduce our impacts on the environment.

Our commitment to the environment extends to our students, our staff, and the community in which we operate. We are committed to:

- 1) Comply with all applicable environmental regulations.
- 2) Prevent pollution whenever possible.
- 3) Minimizing waste by reviewing purchasing practices and segregating waste for reuse and recycling.
- 4) Purchase and use environmentally responsible (recyclable, refurbished, etc.) products from environmentally responsible suppliers (i.e. suppliers who emphasize the need for renewable energy supplies).
- 5) Train all of our staff on our environmental program and empower them to contribute and participate.
- 6) Continually improve over time by striving to measure our environmental impacts and by setting goals to reduce these impacts each year.

As per the policy guidelines the institution is implementing

- 1) College is implementing Environmental Module as prescribed by the Savitribai Phule Pune University, Pune.
- 2) Organization of various seminars & workshops on regular basis

3. General Recommendations:

- The College should improve its monitoring and reporting of energy, water and other resource usage.
- To reach the goal of a 30% recycling rate, which some institutions have achieved, college should compost food waste and be more vigorous about recycling education.
- College should continue to work towards composting post-consumer food waste generated by the dining areas. In order to help reduce the large amount of post-consumer food waste, the College should provide better labeling and more self-service options and work to educate students about food waste.
- The college should continue to stay with current chemical products that may have a minimal environmental impact and make this an explicit formal goal.
- Any future increases in servers should be consolidated in one “machine room,” rather than building another on campus with the same high maintenance requirements.
- The EAC should make decisions with respect to continuous input, interests and commitments of the students, participating faculty, and administration.
- College should develop a mechanism of monitoring and information dissemination of various environmental parameters. As have problems with accurately and consistently monitoring electrical usage (especially in terms of individual buildings) and water usage.
- College should take efforts by putting Environment awareness slogans on the walls to inculcate values on student’s mind.
- Chemistry department should encourage “Green Chemistry” program.

- The roof area shows potential for rain water harvesting.
- Environment Awareness programmes and Environmental field visits should be arranged on more frequent basis for Hands on Experience.

4. Conclusions

The findings of this report show that the college performs fairly well on sustainability issues. The college does consider the environmental impacts of most of its actions and makes a concerted efforts to act in an environmentally responsible manner. In conversations with faculty, staff administration at the college, shows improvements made over the last few years to enhance environmental awareness.

Even though the college does perform fairly well, the recommendations in this report highlights many ways in which the college can work to improve its actions and become a more sustainable institution.

In this section, the recommendations are ranked in terms of priority.

The high priority recommendations are:

- Continue working towards worm composting the post-consumer food waste generated by the dining halls.
- Adopt the proposed Environmentally Responsible Purchasing Policy, and work towards creating and implementing a strategy to reduce the environmental impact.
- With regards to the concerns mentioned in this report, the College should consider adopting specific goals and targets in its pursuit of sustainability.

The medium priority recommendations are:

- Look towards meeting different environmental standards.
- Develop explicit policies concerning the impact of new construction on impervious surface area and runoff.
- Continue to support the work of the EAC and should ensure that its recommendations are considered carefully and in a timely manner through the appropriate chain of command.

The minor and future concerns are:

- Encourage student project on environmental footprint for College.
- Continue expanding research program to better educate students about natural history and college role in preserving biodiversity and optimum utilization of natural resources.
- Apply fees/charges for parking and implement it across all types of employees, faculty, and students in order to encourage use of public transport.
- Should formulate “Environmentally Responsible Purchasing Policy” for college

List of Plants available at Mahatma Phule Mahavidyalaya & Vocation Guidance Centre:

- 1) Coconut -Cocos nucifera (19).**
- 2) Amla Emblica officinalis (34)**
- 3) Mango - Mangifera Indica (23)**
- 4 Neem Azadirakta indica (07)**
- 5) Guava - Psidium guajava (03)**
- 6)Shevari-Sesbania seban (10)**

- 7) Moringa - Moringa oleifera (04)**
- 8) Cassia SP (07)**
- 9) Papaya-Carica papaya**
- 10) Jackfruit-Artocarpus heterophyllus**
- 11) Gulmohar - Delonix regia (01)**
- 12) Lemon- Citrus limon (02)**
- 13) Fig- Ficus racemosa (01)**
- 14) Pipal - Ficus religiosa (01)**
- 15) Banana - Musa paradisiaca (19)**
- 16) Ornamental plants (18)**

Annexure No1.

Solid waste collection bins



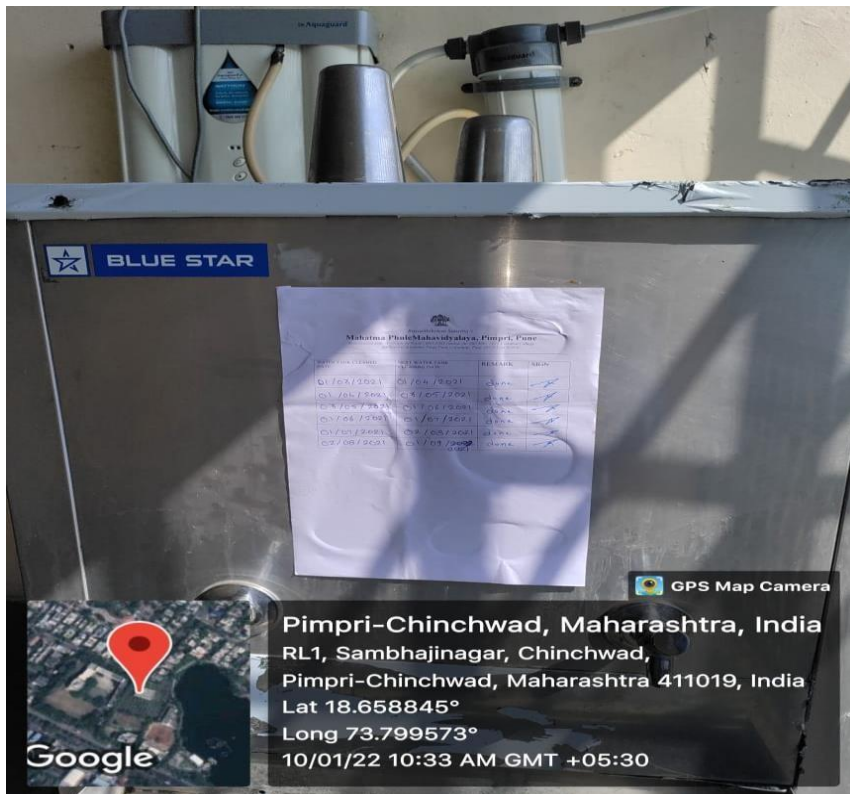
Solid waste disposal to municipal corporation vehicle



E-waste management facility created during lock down period (Covid)

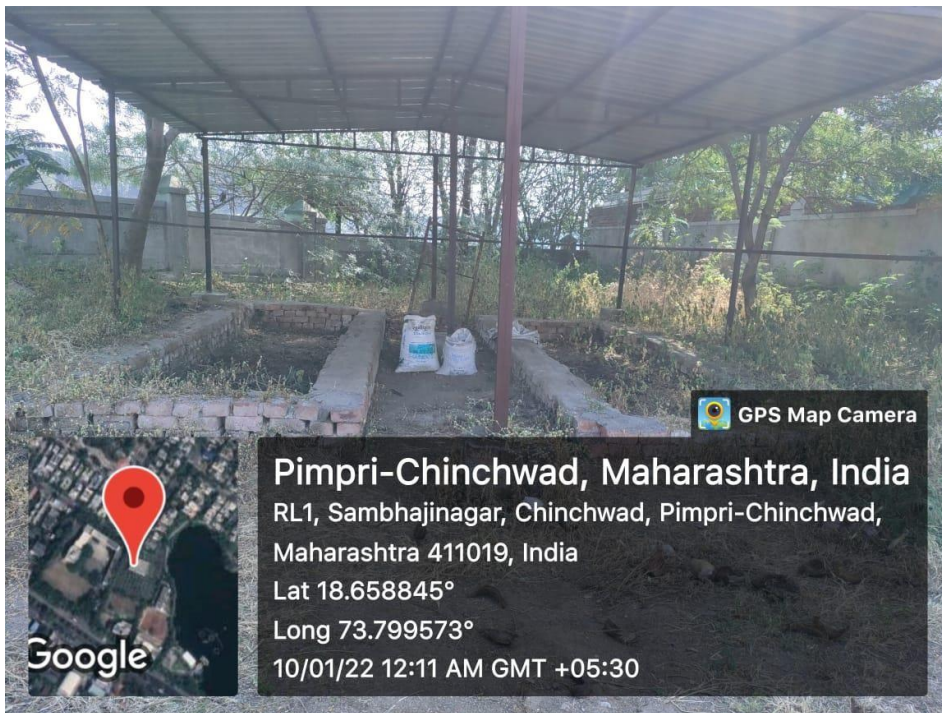


Mainataincnace & cleaning work of water storage tanks



Annexure 2

Vermicomposting Pit



Annexure 3

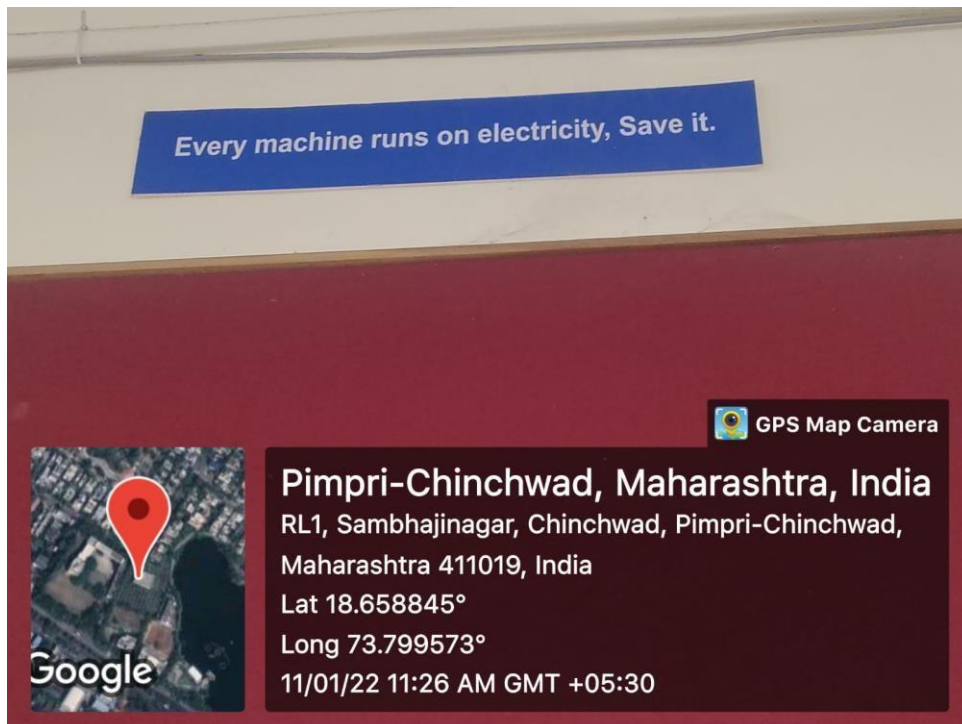
Collage conducts Tree Plantation every year



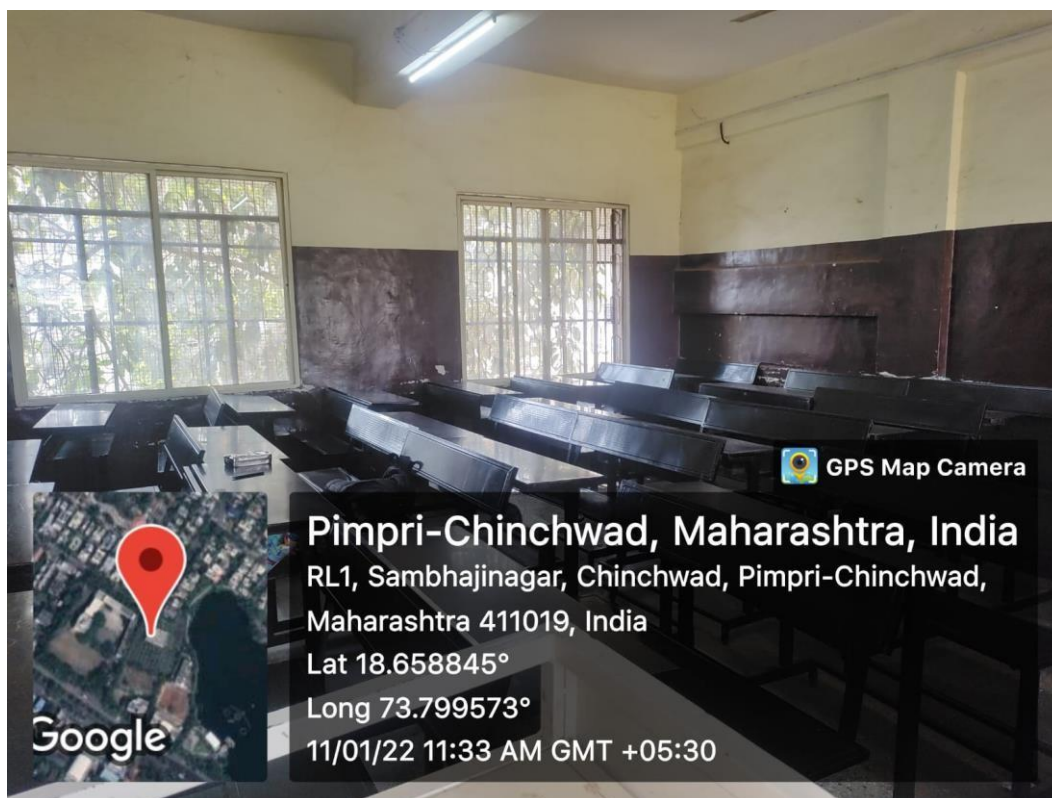
Importance of water conservation



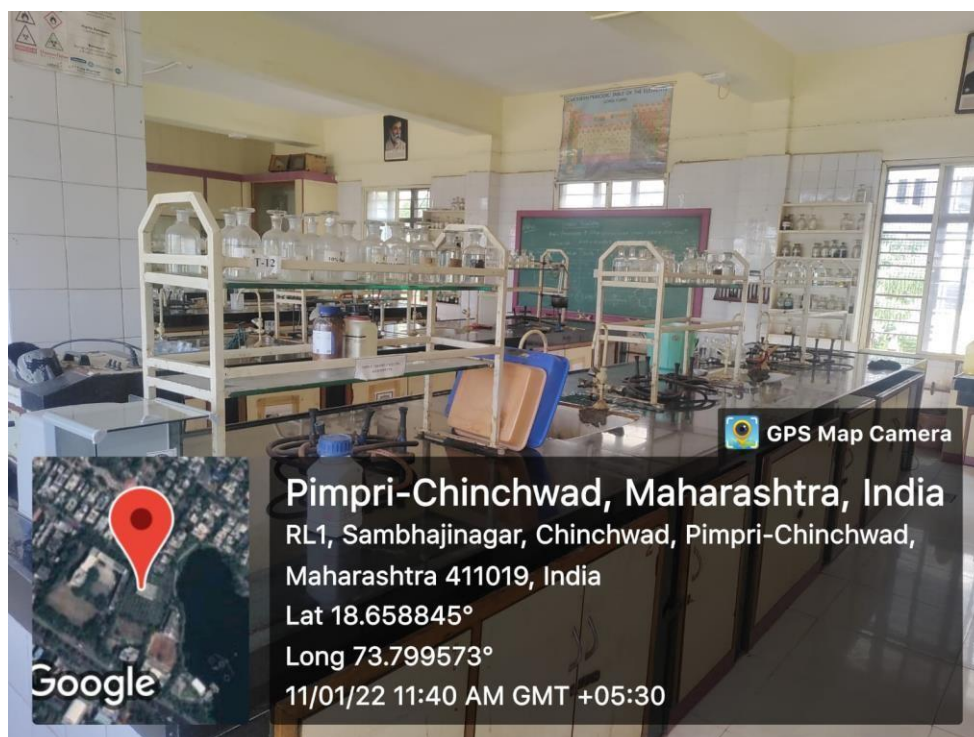
Environment awareness slogans



Ventillated Classrooms

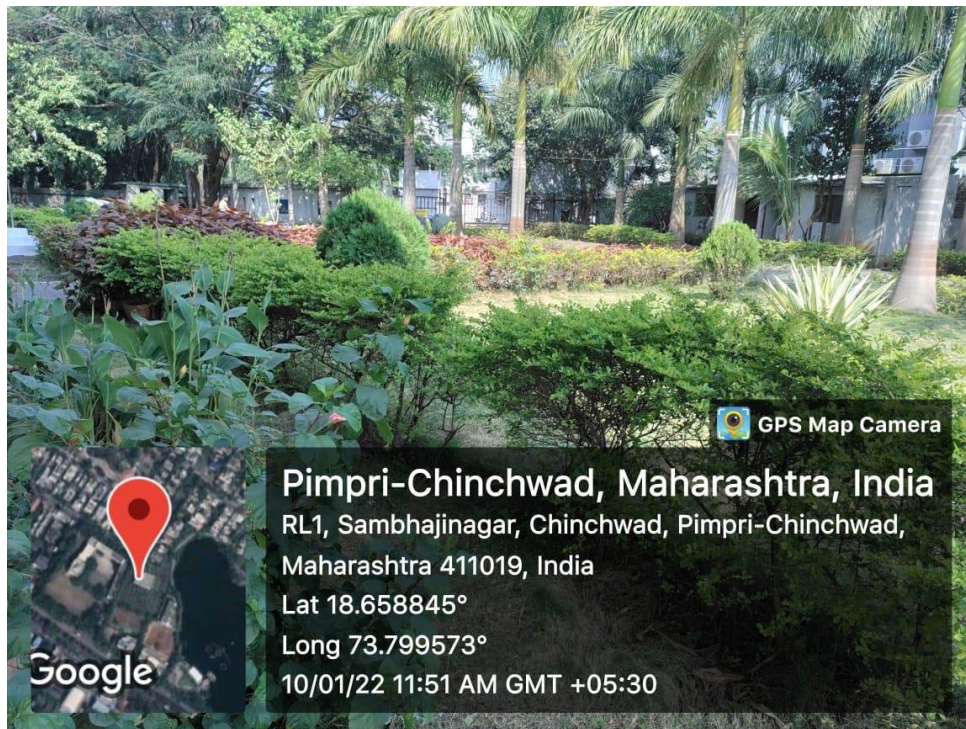


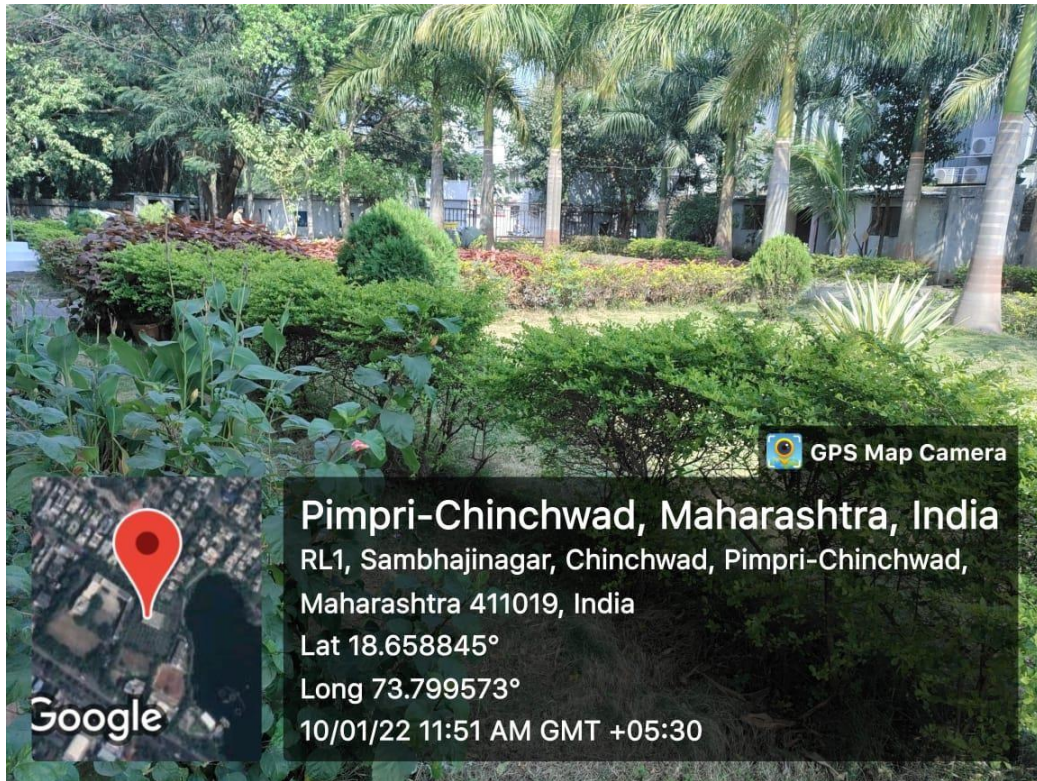
Well maintained Laboratories



Annexure 4

Greenery within Campus: Tree canopy





GPS Map Camera

Pimpri-Chinchwad, Maharashtra, India

RL1, Sambhajinagar, Chinchwad, Pimpri-Chinchwad,
Maharashtra 411019, India

Lat 18.658845°

Long 73.799573°

10/01/22 11:51 AM GMT +05:30

Google



GPS Map Camera

Pimpri-Chinchwad, Maharashtra, India

RL1, Sambhajinagar, Chinchwad, Pimpri-Chinchwad,
Maharashtra 411019, India

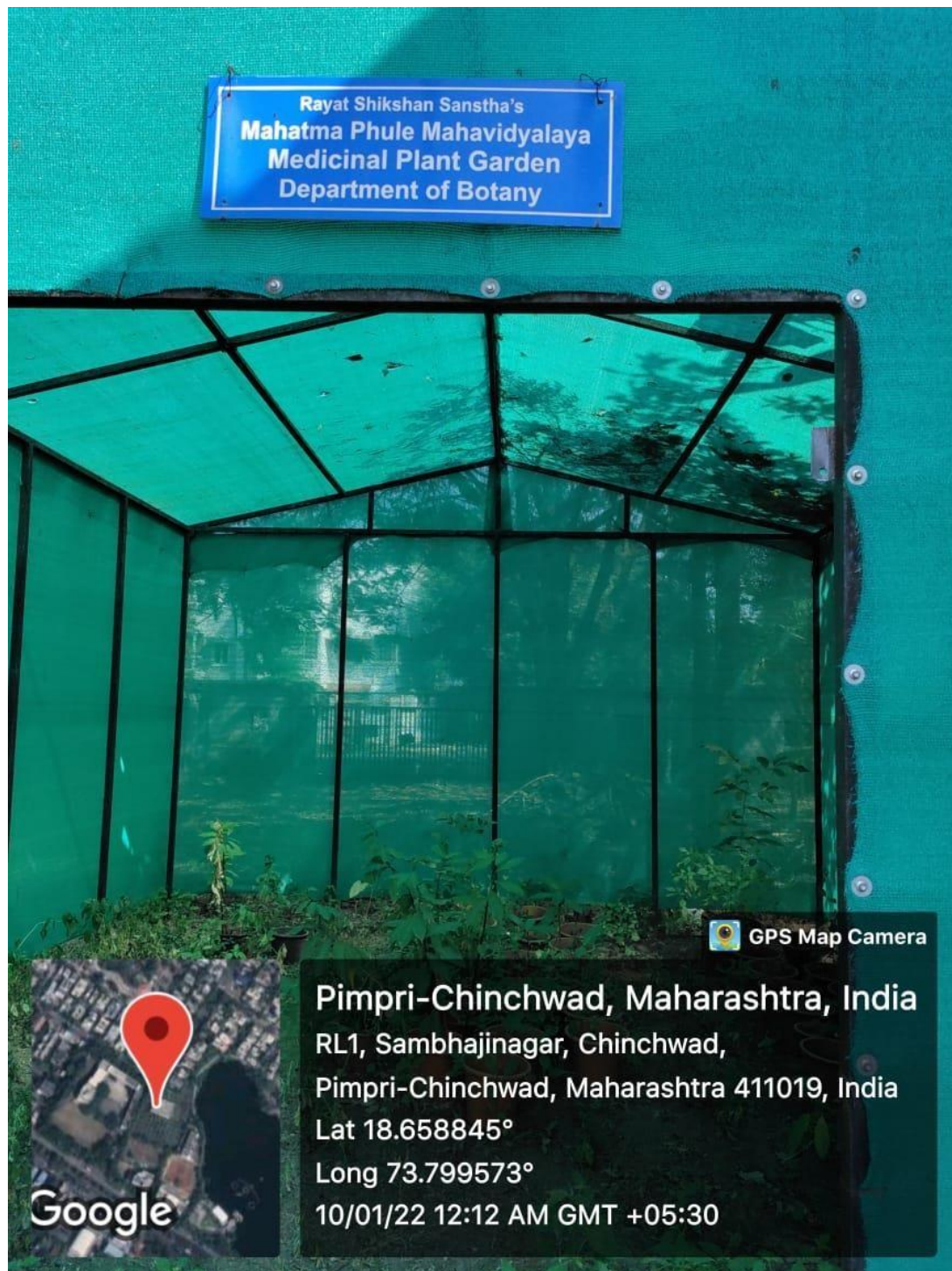
Lat 18.658845°

Long 73.799573°

10/01/22 11:52 AM GMT +05:30

Google

Medicinal Plant Garden developed by department of Botany



Audit Participants

On behalf of Institute:

Name	Position/Department
Dr. Pandurang Gaikwad	Principal, Mahatma Phule Mahavidyalaya, Pimpri, Pune-17
Miss. Swapana Hajare	Asst. Professor
Mr. Babasaheb Pawal	Asso. Professor
Dr. Shubhada Londhe	Asst. Professor
Mrs. Ratnprabha Naik	OS

On behalf of Aditya Envirotech:

Name	Position	Qualification
Ram Shinde	Lead Auditor	M.Sc. (Environment Science), Lead Auditor ISO 14001:2015,
Suryakant Samant	Co- Auditor	M.Sc. (Environment),



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