

MES PONNANI COLLEGE

*Green Audit
Report*

2022-2023



GREEN AUDIT

2022-2023



MES PONNANI COLLEGE
MALAPPURRAM
KERALA

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ACKNOWLEDGEMENTS

We express our sincere gratitude to the **MES COLLEGE, PONNANI** for giving us an opportunity to carry out the project of Green Audit. We are extremely thankful to all the staffs for their support to carry out the studies and for input data, and measurements related to the project of Green audit.

College Team Members

- 1 Dr. Riyas A Assistant Professor
- 2 Dr. Sreejalakshmi S Assistant Professor

Also congratulating our Green audit team members for successfully completing the assignment in time and making their best efforts to add value.

1. GREEN AUDIT SUMMARY

The actionable summary of the audit report is given in the table below.

- ❖ College constructed its buildings without disturbing its natural geography of land and thus avoid the damage to the ecosystem
- ❖ The buildings are constructed as to provide maximum sun light and ventilation to classrooms, and we observed the carbon dioxide levels are as per standard level in college.
- ❖ Rainwater harvesting done by collecting water from main office, hostels and stored and then feed into cultivation are of vetiver in the college.
- ❖ Students of NSS unit of college, nature club, and Boomithrasena volunteers conducted several programmes as nature camps, environmental day celebrations, seminars, photo exhibition, rally's, etc.

2. GENERAL DETAILS

The general details of the MES College are given below in table.

Table 1: General Details

Sl.No:	Particulars	Details
1	Name of the College	MES Ponnani College
2	Address	Ponnani South
		Malapuram- 679586
3	Contact Person	Dr. Ameera V.U
4	Contact Phone numbers & Fax	0494-266607
		0494-2666077
5	E-mail ID	principal.mesponnani@gmail.com
6	Type of Building	Educational Institution
7	Annual Working Days	210
8	No: of Shifts	Day Shift (One) (9AM -4PM)

ABOUT MES COLLEGE

The last five decades have witnessed the remarkable transformation in the educational status of Muslims in Kerala, supposedly the most backward in education. The driving force behind this effort has been M.E.S., the largest educational agency of the Muslim community in India having thousands of life members and hundreds of institutions. The movement started under the great leadership of late Dr. P.K. Abdul Gafoor in 1964 at Calicut, was supported by a large number of professionals and businessmen and in a short span of time, it spread to all Districts, Taluks and even to the Panchayaths in Kerala and other parts of India and abroad. As on today it is the largest Muslim service organization in the country. It has also well-established units in Middle East countries like Saudi Arabia, Qatar, Oman, Dubai, Abu Dhabi, Kuwait, etc. and still the organization is growing fast, extending its services further to reach every nook and corner of the world. MES is the largest corporate educational agency of Muslims in India, with more than 150 institutions including Medical College, Dental College, Engineering Colleges, College of Nursing, Arts and Science colleges, Training Colleges, CBSE schools, State syllabus Higher Secondary Schools and Industrial Training Centres with more than 60,000 students and around 15,000 employees. Hospitals, Orphanages, Old age homes, Special Schools for Mentally Challenged, Cultural complexes and various hostels draw up the broad canvas of the services offered and activities undertaken by the society. The idea of a college at Ponnani actually emanated from the brain of late Dr. P.K. Abdul Gafoor Sahib, while addressing a public meeting organized by M.E.S. Ponnani unit in 1967. In the keynote address, he unequivocally stated that M.E.S. was ready to start a College here at Ponnani, provided the Ponnani M.E.S. units mobilize the required land and 1 lakh rupees. It was a great source of inspiration for the energetic members of the Ponnani unit. They took it up as a challenge and managed to accomplish all the requirements within a short duration. A sprawling 32 acres of land was obtained from the government and they also raised an amount of 1.25 lakhs rupees by means of public contribution. The long-cherished dream thus became a reality when the college came into existence in 1968 under the patronage of M.E.S. President late Dr. P.K. Abdul Gafoor, Sri. E.K. Imbichi Bava and Sri. C.H. Mohammed Koya, being then the Ministers of Kerala. The college enjoys 2(f) and 12(B) status of UGC and is affiliated to University of Calicut. At present it provides higher education to more than 1400 students in five Post Graduate courses and nine Under Graduate courses. Among five Post Graduate departments, three departments are recognized as Research Centres by Calicut University. There are 69 Teaching faculties and 25 Non- teaching staff in our college. The college was re- accredited by the NAAC at A level in

September 2012. Ponnani lies on the western outskirts of Malappuram district. The college is situated in Ponnani municipal area and its campus stretches to the west side of Tippu Sultan road. This is the only higher education centre between Tirur and Guruvayoor in the coastal belt of Malappuram district. The

National Highway 66, the K.S.R.T.C. bus depot and the private bus stand make commuting very easy for the students. Kuttipuram railway station is 18 kms towards northeast and Guruvayoor railway station in 29 kms towards south.

Vision

To immortalize the legendary Ponnani wisdom and tradition, whilst assimilating the ever-altering spirit and ingenuity of the academic firmament.

Mission

To ensure the scholastic, social and cultural emancipation and empowerment of people of the environs especially of the fisher folk whose rights and privileges have been suppressed and trampled upon for centuries owing to the historical, political and social reasons.

Objectives

We endeavor to fulfill the fair aspirations of all stakeholders and to disseminate the fame of institution as an epitome of excellence in all walks by setting the following objectives: -

- Developing a culture of equality, secular outlook, all-inclusiveness and impartiality.
- Embracing innovative curricular, co-curricular and extracurricular activities from the globalized world.
- Setting an exceptional academic ambience ensuring the collaboration and contribution of all stakeholders.
- Promoting scientific temperament and rationale thinking as envisioned in the Constitution of India.
- Empowering the vulnerable sections of the society through committed and unswerving programs.
- Providing a life-oriented education to students, making them agents of transformation for the wellbeing of the Nation.

Core Values

1. Social Equity
2. Ethical Justice
3. Civic Responsibility
4. Accountability and Transparency
5. Intellectual Integrity

6. Inclusive Employment



GREEN AUDIT

The Quality of life and the beauty of nature are being lost due to anthropogenic influences and climate change. Conservation of nature in its original forms is needed for the sustainability of the future. It is very important to do a detailed study about the effects on the environment. A green audit, also known as an environmental audit or sustainability audit, in a college involves assessing and evaluating the institution's environmental impact and sustainability practices. This process is designed to identify areas where the college can improve its environmental performance and reduce its ecological footprint. The relevance of a green audit in a college setting is significant for several reasons:

- 1. Environmental Responsibility:** Colleges, like any other organizations, have a responsibility to minimize their negative impact on the environment. Conducting a green audit helps the institution identify areas where it can adopt more sustainable practices, reduce resource consumption, and minimize waste generation.
- 2. Cost Savings:** Many sustainable practices are also cost-effective. By identifying and implementing more energy-efficient technologies, reducing water consumption, and minimizing waste, colleges can often save money in the long run. A green audit can highlight opportunities for cost savings through sustainable practices.
- 3. Educational Value:** Colleges play a crucial role in educating the next generation of leaders and professionals. Integrating sustainability principles into the curriculum and campus practices helps instill a sense of environmental responsibility in students. A green audit can serve as an educational tool, raising awareness and fostering a culture of sustainability among students, faculty, and staff.
- 4. Community Engagement:** Demonstrating a commitment to sustainability can enhance the college's reputation and community engagement. Many students and parents are increasingly considering the environmental practices of institutions when making decisions about education. A green audit can be a transparent way for a college to showcase its commitment to environmental stewardship.
- 5. Compliance and Regulations:** Environmental regulations and standards are becoming more stringent, and colleges must ensure compliance with local, state, and federal environmental laws. A green audit can help identify areas where the college may be at risk of non-compliance and ensure that the institution meets all necessary environmental regulations.
- 6. Long-Term Planning:** A green audit provides valuable data and insights that can inform long-term sustainability planning. By understanding the current environmental impact and resource usage patterns, colleges can develop strategic plans to continuously improve sustainability practices over time.

- 7. Innovation and Leadership:** Colleges have the opportunity to be leaders in sustainability and drive innovation in environmental practices. A green audit can identify areas where the college can implement cutting-edge technologies and practices, positioning itself as a leader in sustainable education.

CAMPUS ENVIRONMENT

The environment in and around the college campus plays an important part in maintaining a healthy atmosphere in nurturing talents. It encompasses various elements that contribute to the overall atmosphere and experience for students, faculty, and staff. Having plantations on a campus can offer a range of benefits, both for the environment and the well-being of the campus community. Trees are the major source of the oxygen we breath and the receiver of the carbon dioxide we exhale. Various plants attracting birds, insects, and other wildlife, promoting biodiversity on campus. The sustainability of an ecosystem depends on the number of plants and trees in and around the surroundings. We planted native plants on the campus, which support local ecosystems and require less maintenance. MES College constructed in the location were the sands are infertile and having water porosity and hence it does not hold the water in surface. They perfectly maintain different buildings of college such as main building, academic block, auditorium, hostels, mosque etc. in an aesthetic way and do not affecting ventilation of each building. Large open space in the college is used for gardening and maintain a botanical garden and different species of birds in a vernacular manner.

Scientific studies are proved that the nature can able to cure any diseases and this will reduce the stress among students during theirs studies and increase the compassion among them and to nature Ultimately the campus is maintaining natural equilibrium trees, birds and cattle's and water bodies with human beings. Gardens and landscape are an aesthetic delight and it promotes attentiveness of students. Persons exposed to plants have higher level of positive feelings (pleas ants, calm) as opposed to negative feelings (anger, fear).



FIGURE 1: BOTANICAL GARDEN

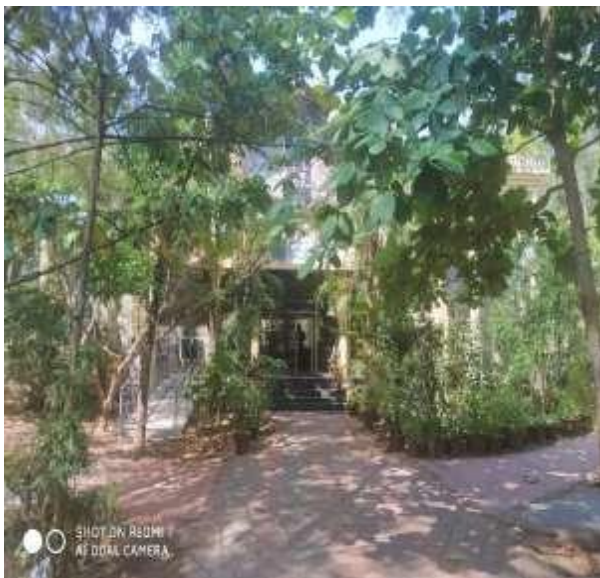


SUSTAINABLE CONSTRUCTION OF BUILDINGS

MES Ponnani has adopted practices that minimize the environmental impact of constructions and operations while promoting energy efficiency, and resource conservation. They approach the constructional activities consciously to conserve energy and ecology and avoid the adverse effects of ecological damage. Incorporated passive design principles to optimize natural lighting, ventilation, and heating/cooling. We have chosen energy-efficient building shapes and orientations to maximize natural resources and used sustainable building materials with low environmental impacts and considered locally sourced materials to reduce transportation emission.

Energy-consuming devices installed to achieve comfort levels for the occupants of the building give rise to heat generation which adversely affects the environment within the building and in the surrounding. Buildings are thus the major pollutants that affect urban air quality and contribute to climate change. Buildings are the major consumers of energy during their construction, operation, and maintenance.

Library Building



1. CARBON DIOXIDE LEVELS

Freshness of air and its availability is an important area of concern for the construction of building. The percentage share of oxygen and carbon dioxide should be such that the occupants can perform their tasks without any discomfort. This is generally done through the provision of fresh air duct for the air conditioning systems or by providing windows. Numerous factors need to be considered for the design and fabrication of the fresh air supply system like the number of occupants, weather pattern and air quality of the location, and so on. For the human comfort, production of carbon-dioxide (CO₂) within a building space is the prime area of consideration. This is associated with respiration which produces CO₂. As a result, the carbon-dioxide levels will increase if ventilations are not provided. As per various standards (like the ASHRAE Standard 2023), indoor CO₂ concentrations up to 1100 ppm is considered acceptable. For a typical outdoor condition, this value may change from 300 to 400 ppm.

The measurements were recorded along different locations inside the campus and the peak values are given in the following sections. The key concentration was on the study of carbon dioxide levels. The measurement has been done. The measured readings are given below in Table.

Table 2: Carbon Dioxide Levels

Sl. No.	AREA	Measured CO ₂ PPM	Standard Maximum CO ₂ level PPM	Remarks
1	Classrooms	382	400	Good
2	Staff rooms	350	400	Good
3	Air-conditioned labs	520	600	Good
4	Computer lab	500	600	Good
5	Hostel Rooms	392	400	Good
6	Adm Office	502	600	Good

LIST OF PLANT IN THE CAMPUS

Table 3: List of Trees with Botanical Name

Sl No:	Botanical Name	No: of plants
1	<i>Mangifera indica</i>	27
1.	<i>Alstomia scholaris</i>	2
2.	<i>Acacia auriculiformis</i>	11
3.	<i>Acacia mangleum</i>	4

4.	<i>Casuarina neriifolia</i>	24
5.	<i>Samanea saman</i>	8
6.	<i>Delonix regia</i>	1
7.	<i>Phyllanthus emblica</i>	19
8.	<i>Psidium guajava</i>	6
9.	<i>Citharexylum spinosum</i>	1
10.	<i>Syzygium cumini</i>	9
11.	<i>Acacia catechu</i>	6
12.	<i>Pithecellobium dulce</i>	3
13.	<i>Anacardium occidentale</i>	13
14.	<i>Azadirachta indica</i>	11
15.	<i>Saraca asoca</i>	9
16.	<i>Macaranga indica</i>	6
17.	<i>Ficus religiosa</i>	13
18.	<i>Bauhinia purpurea</i>	19
19.	<i>Pongamia pinnata</i>	8
20.	<i>Caesalpinia sappan</i>	6
21.	<i>Swietenia mahagoni</i>	6
22.	<i>Vitex negundo</i>	2
23.	<i>Bambusa arundinacea</i>	7
24.	<i>Phyllostachys aureosulcat</i>	2

25.	<i>Ziziphus jujuba</i>	6
26.	<i>Terminalia catappa</i>	9
27.	<i>Tamarindus indica</i>	10
28.	<i>Ochlandra sp.</i>	1
29.	<i>Moringa pterygosperma</i>	1
30.	<i>Garcinia cambogia</i>	1
31.	<i>Lagerstroemia ispeciosa---</i>	6
32.	<i>Tectona grandis</i>	3
33.	<i>Artocarpus hirsutus</i>	4
34.	<i>Polyalthia longifolia</i>	4
35.	<i>Simarouba glauca</i>	1
36.	<i>Thespesia populnea</i>	3
37.	<i>Cocos nucifera</i>	14
38.	<i>Ferula asafoetida</i>	1
39.	<i>Mimusops elengi</i>	3
40.	<i>Terminalia chebula</i>	1
41.	<i>Terminalia bellirica</i>	1
42.	<i>Ficus bengalensis</i>	1
43.	<i>Artocarpus heterophyllus</i>	2
44.	<i>Pterocarpus marsupium</i>	3
45.	<i>Biancaea sappan</i>	2
46.	<i>Phyllanthus acidus</i>	1
47.	<i>Santalum album</i>	2
48.	<i>Cassia fistula</i>	2
49.	<i>Gmelina arborea</i>	1
50.	<i>Achras sapota</i>	3
51.	<i>Annona squamosa</i>	4
52.	<i>Annona reticula</i>	3
53.	<i>Annona muricata</i>	1
54.	<i>Caesalpinia pulcherrima</i>	2
55.	<i>Garcinia mangostana</i>	3
56.	<i>Ficus racemosa</i>	1

Special initiatives of college

Establishment of oxygen park

Plantation of oxygen rich plants Our College has a beautiful green campus. We have skilfully planted the plants like, Neem Trees, Tulasi and Vetiver to make the campus full of oxygen. The greenery has remained useful in developing Oxygen Park in our college.

“Parking bay for Vehicles”

To avoid the air pollution the vehicles are not allowed in the campus, but they are parked in the parking area, reasonably away from college. Our college has a separate parking area to avoid pollution

Silence zones in the college

Various display boards have been placed in the library and other places for awareness to maintain silence in the college



Figure 2: Oxygen Park

1. WATER RESOURCES

The requirement of water for the college, hostels and gardening etc are met by borewell water as 14 Numbers of different capacities and all are working well. The water is collected in many tanks. Borewell water is pumped into different tanks located in each building. The details of Borewell and capacity and locations are given below table. Water table in the MES college area is very high because it is nearer to sea shore and bay of Bharathapuzha river.

Table 4. List of Water Resources in the Campus

Sl No:	Capacity (HP)	Location
1	0.5	HM Hall
2	1.5 -02 No	Aquaculture back side
3	0.5	Old Building
4	0.5	Library
5	1	Commerce Building
6	1.5	Academy Block
7	0.5	Golden Jubilee Block
8	1.5	EK Auditorium
9	0.5	Computer Science
10	0.5	Canteen
11	1.5	Mosque
12	0.5	Men's Hostel
13	0.5	Ladies Hostel

WATER UTILITIES

The labs have the highest tap points whereas the toilet accounts for the major consumption. The water outlet points in the college campus and hostel are listed in the following table.

Table 5: Water Taps

Location	No: of taps
Canteen area taps	17
Toilets	24
Flushes	18
College compound and garden	12
College hostel	18
Ladies Hostel	24
Lab	42
Staff and other office rooms	24
Total	174

1. GROUND WATER RECHARGING

Ground water is one of the valuable resources. Ground water occurs in the saturated soil and rock below the water table. Pumping from wells can have great deal of influence on water levels below ground especially in the vicinity of the well. If the water drawn from at faster rate which is replenished either by infiltration from the surface or from streams, then the water table become lower resulting a cone of depression around the well. By recharging these aquifers or balancing of cone of depression during rainy season is important for recharging the drain out points and for reducing the saline ingress into the ground water.

Ground water recharging is adopted by the college is cultivation of vetiver in the college helps to reduce the soil erosion from the surface soil the roots of these vetiver will help the water to percolate into ground water.

Notes:

- The use of biomass in the form coconut shells can be used to cover the foot of the trees which can behave as recharging soak pits.
- Suggested to conduct a detailed study on geological and hydrogeological mapping of the area to find out proper sizing, deep well recharging, collection of water collecting from roofs and possible methods for ground water recharging where the water table is in high level.

STUDENTS ACTIVITIES FOR NATURE

❖ TREE PLANTATION ON WORLD ENVIRONMENT DAY

In Connection With World Environment Day National Service Scheme MES Ponnani College Unit 28 & 67 Conducted Various Programs. With the Motto " രണര - നഢാഢ നമുക്കൊരു ടൈ തുടരഢഢ നമുക്കീ ഭൂമിയിര" about 100 saplings were planted in the houses of NSS volunteers.



❖ BEACH CLEANING ON WORLD OCEAN DAY

In association with World Ocean Day, the college NSS group has cleaned the Ponnani beach and the nearby areas and did an awareness campaign to the coastal peoples about the importance waste management.



❖ **TREE PLANTATION DRIVE COCONUT TREE FARMING (18/7/22)**

The club observed coconut plantation drive in the campus. The sandy soil of the campus is so congenial to the growth of coconut trees. In view of that the club in collaboration with the NSS unit procured 100 coconut saplings and planted in different parts of the campus.



❖ **GARDEN CLEANING**

NSS units conducted cleaning of the organic vegetable garden of MES college on 18th July 2022. They have promoted organic vegetable cultivation themselves.



❖ **OBSERVANCE OF AZADI KA AMRIT MAHOLSAV (12/08/2022)**

Flamingo Nature Club, in connection with the National celebration of AZADI KA AMRIT MAHOLSAV, held a one week long CAMPUS TREE PLANTATION PROGRAMME. The programme was inaugurated by famous malayalam writer M S Madhavan. MES State President Prof Kadavanad Muhammed and college correspondent Prof. Sagir Khadri were present in the function. All dignitaries planted trees in the newly set campus park titled as “AZADI PARK”. All Nature club volunteers also took part in the programme and planted their own favorite trees in the stipulated area.

OBSERVANCE OF AZADI KA AMRIT MAHOLSAV (12/08/2022)



Famous malayalam writer N S Madhavan, inaugurating the Campus park "AZADI PARK" by planting trees. Standing side- Prof Kadavanad Muhammed, MES State president, and Prof Saghir Kadri, MES correspondent



Flamingo Nature club volunteers gathered for tree plantation, Programme posture

❖ **TREE PLANTATION ON INDEPENDENCE DAY**

NSS unit of MES Planted 75 plants in the campus in connection with Independence Day celebration 15th August 2022.



❖ **GARDEN CLEANING**

Cleaning a garden is an important task that can help to maintain its beauty and health. It involves removing debris, dead leaves, weeds, and other unwanted materials from the garden. NSS units conducted cleaning of the organic vegetable garden on 29th August 2023.



❖ **PLASTIC ERADICATION CAMPAIGN (29/11/22)**

Indiscriminate disposal of plastic waste is one of the menaces addressed by the campus. Under the initiative of Nature club volunteers, in collaboration with college union the club conducted a mass scale plastic waste disposal and awareness programme for the students. As a part of this, volunteers engaged in campus cleaning and awareness programme. Student Secretary Thanveer and Joint Secretary Fermisha supervised the programme.



Initiatives of Flamingo Nature club – for plastic free campus (29/11/22)



Student volunteers in action



Plastic threat awareness campaign



Class campaign on 14/9/22

❖ **Mass Campus Cleaning Drive**

A mass campus cleaning drive is a large-scale effort to clean up and maintain the cleanliness of a campus. The goal of this drive is to create a healthy and hygienic environment for the students, faculty, and staff. NSS Units College conducted a Mass Campus Cleaning Drive on 1st December 2022.



❖ **SEMINAR ON GREEN PROTOCOL, PROSPECTS, INTEREST, POSSIBILITIES AND CHALLENGES**

Bhoomithrasena Club of MES organized a one day seminar on “green protocol, prospects, Interest, possibilities and challenges” on 19th December 2022 at the College Auditorium.

MES PONNANI COLLEGE
 Govt. Aided Institution | Affiliated to the University of Calicut
 Estd.: 1968 | Recognized under UGC 2(f) & 12(B)
 NAAC Re-accredited with 'A+' Grade (III Cycle) CGPA 3.46

75
 Azadi Ka
 Amrit Mahotsav

GREEN PROTOCOL

PROSPECTS, INTERESTS, POSSIBILITIES & CHALLENGES

Inauguration

Resource Persons

Dr. Ameera .V.U
Principal

Anjaly Muralidharan
Assistant Professor,
St. Teresa's College,
Ernakulam

**Jyothilakshmi
S Babu**

Amala

Kate Roshan

Organised by
Bhoomithrasena Club

reduce
reuse
recycle

BMC Team Co-ordinators:
 Dr. Thoufeeq Rahman, Shamila.V.U, Sabna M

19 December 2022
10:30AM | Conference Hall



CONCLUSION:

Green Audit is the most efficient & ecological way to solve such an environmental problem. Green Audit is one kind of professional care which is the responsibility of everyone who are the part of economic, financial, social, environmental factor. Green audits can “add value” to the management approaches being taken by the college and is a way of identifying, evaluating and managing environmental risks (known and unknown). The green audit reports assist in the process of attaining an eco-friendly approach to the development of the college.

The auditors observed during the campus visit and after the conversation with the staff and students of MES college, Ponnani that they have taken continuous and considerable effort in several years for nurturing and maintaining the green coverage over the campus which is being well appreciated by us. There is still opportunity to attain the perfection some of the identified suggestions are listed in the executive summary.