

An Educational Institution run by the Government of Tamil Nadu Affiliated to Annamalai University. Re-Accredited by NAAC with 'B' Grade

ENVIRONMENTAL AUDIT REPORT 2022-2023



AUDIT/REPORT BY



ACKNOWLEDGEMENT

We at Alcheme Green Energy Company, Madurai are thankful to the principal for giving us the opportunity to carry out Environmental audit at Periyar Arts College Devanampattinam, Cuddalore-607001. Alcheme Green Energy Company team is also thankful to all other supporting Officers / Staffs of the above institute for their wholehearted support, hospitality and the courtesy extended to the Audit team during the course of the visit.

The following officers from Alcheme Green Energy Company under the guidance of Mr. C. Jebaraj, B.Tech., P.G.D.E.M., DIS have carried out the Environmental Audit.

Name	Qualifications	Certification Number		
	B.Tech., PDGEM., DIS.,			
	BEE Certificated Energy Auditor,			
Mr. C. Jebaraj	IRCA Certified Lead Auditor - OHSMS	EA-9047		
	Internal Auditor-QMS			
	CII Certified Carbon footprint Professional			
Mr. S. Lakhsmana	B.Tech., MSc., (Env. Science), MBA.,			
Kumaran	IRCA Certified Lead Auditor ISO 14001 EMS			

The following staff from the Institution participated in the audit process

SI. No.	Name	Designation	
1	Dr. R. Rajendira <mark>n</mark>	Principal	
2	Dr. K. Geetha	HOD of Computer Science, IQAC Coordinator	
3	Mrs. Ramakris <mark>hnan Santhi</mark>	Associate Professor & HOD of Economics	
4	Dr. K. Nirmal Ku <mark>mar</mark>	Associate Professor & HOD of Botany, Green Club Coordinator	
5	Dr. R. Thilak Kuma <mark>r</mark>	Associate Professor of Physics	
6	Dr. M. Paul Arokiadass Jerald	Associate Professor of Computer Science	
7	Dr. N. Sethuraman	Associate Professor of History, Disaster Management System Coordinator	
8	Dr. Michael Antony Prabhu Arachi	Assistant Professor of Zoology, GCC Coordinator	
9	Dr. K. Aruldoss	Associate Professor of Zoology, NSS Co- Ordinator	
10	Dr. S. Mithra	Associate Professor of Chemistry, NSS Coordinator	
11	Dr. R. Periyanayagi	Associate Professor of Zoology, NSS Coordinator	
12	Dr. Krishnamurthi	Associate Professor of Commerce, NSS Coordinator	
13	Dr. R. Manogarane	Assistant Professor of Tamil, Associate NCC Officer, Division 6 Periyar Arts College.	
14	Dr. K. Umadevi	Guest Faculty, Social Work Department	
15	Mrs. G. Malathy	Office Superintendent	

Index

SI. No.	Contents	Page No
	Summary of Environmental Audit	4
1.	Introduction	6
1.1	Environmental Policy	6
2.	Water	7
2.1	Water usage at college	7
3.	Electrical Energy	8
3.1	TNEB Grid Electrical Energy	8
3.2	Diesel Generator Electrical Energy	8
4.	Fuel Consumption	8
4.1	Liquified Petroleum Gas (LPG)	8
5.	Waste Generations and Management	9
5.1	Liquid and Solid Waste Generation	9
5.2	Waste Management	9
5.2.1	Liquid Waste Management	9
5.2 .2	Bio degradable Waste Management	9
5.2.3	Plastic Waste Management	10
5.2.4	Used Battery Management 11	
5.2.5	e-Waste Management 11	
5.2.6	Other solid waste management	11
6.	Pollution abatement measures	13
6.1	Waste Reduction	13
6.2	Waste Recycling	13
6.3	Waste Reuse	13
6.4	Waste to wealth	13
6.5	Water Conservation	13
6.6	Energy Conservation	14
7.	Greenbelt Development	15
8.	Rainwater Harvesting	25
9	Ambient Air	26
9.1	Greenhouse Gas Emission	26
9.2	Ambient Air Quality	26
9.3.	Noise Level	26
10.	Audit Findings and Recommendations	27

Summary of Environmental Audit

Environmental audit at Periyar Arts College Devanampattinam, Cuddalore was carried by Alcheme Green Energy Company. Audit team has gone through the data related to Water and Electrical Energy, Waste generation, Waste Management, Waste Recycling and Reuse, Green Belt Development of the Institution both inside and outside the campus. The team also carried out the study of Pollution abatement measures, Rainwater harvesting, Water and Energy Conservation measures taken to reduce the pollution, noise level, green house emission and maintain Ambient Air quality

During the visit it is observed that cleanliness in the campus is well maintained through proper disposal of wastes, utilization of eco-friendly supplies and effective recycling program. The concept of eco-friendly culture is disseminated among the students through various seminars/workshops and community-oriented programs. The Institution strictly follows reduce, reuse and recycle method to limit energy usage and partially replace non-renewable energy sources with renewable energy resources. The environmental audit report is a very powerful and valuable communications tool to use while working with various stakeholders who need to be convinced that systems and procedures in place are suited to cope with natural changes and modifications.

It is hoped that the results presented in the environmental audit report will serve as a guide for educating the college community on the existing environmental related practices and resource usage at the college as well as spawn new activities and innovative practices.

The audit outputs and recommendations are summarised as follows:

Noteworthy activities

- Initiation of Green Belt Development for the entire college campus
- Maximum utilisation of public transport system by students for commutation is highly appreciable
- Plastic waste collection and disposal system at the canteen
- Rainwater collection pond and harvest system for all buildings

The audit outputs and recommendations are summarised as follows:

- Air pollution impact on Ambient Air quality is negligible since the quantity of fuel used for combustion in the institution is very less
- Noise levels inside the campus are within the prescribed limit.
- Lot of initiatives are taken to conserve Water and Energy by the Institution.

- Flow meters are to be provided for better water management
- Total water consumption at Periyar Arts College Devanampattinam, Cuddalore on normal working days- 30 KL/Day
- Electrical Energy consumption from TNEB GRID alone -66,451 units
- Diesel Generator electrical energy consumption- 90 units
- Total Green House Gas Emission is 75.67 t CO2e
- Green House gas avoided due to recycling of wastes is 0.65 t CO2 e
- Green House gas absorbed by grown-up trees is 0.90 t CO₂ e
- Net Green House Gas emission is 74.77 t CO₂ e

We are happy to submit this detailed Environmental audit report to the Periyar Arts College Devanampattinam, Cuddalore.

For Alcheme Green Energy Company Madurai

1. Introduction

1.1Environmental Policy

Periyar Arts College Devanampattinam, Cuddalore has well formulated Environmental Policy to guide all its activities.

The main objectives are as follows:

- ✤ To Reduce, Reuse, and Recycle the resources consumed by our institute
- To achieve sound environmental practices across our entire operation.
- ✤ To minimise our waste and reduce our water consumption wherever possible.
- To create awareness among our staffs and students, training them to meet our objectives.

The Institution vouchsafes:

- Identifying the environmental impacts and aspects of operations and ensuring that we meet our compliance obligations.
- Establishing environmental programs that are consistent with our commitment to the continual improvement of the environmental management system.
- Compliance with applicable environmental policies and prevention of pollution by applying the best available practices

2. WATER

2.1 Water usage at Periyar Arts College Devanampattinam, Cuddalore

Total number of students studied during the academic year 2022-2023: 5,375

Teaching & non-Teaching staff in the institution during the academic year 2022-2023: 220+ 30 = 250

Total number of stakeholders: 5,625

Water for college

Main water uses in the College campus are Drinking, Rest broom, Canteen and Lab

Water usage in the College- 30 KL / Day

Water usage per day per stakeholder in the college – 5.33 litres

Water usage at college

SI. No	Place	Water usage Quantity Litres / Day	
1	Drinking	5,000	
2	Rest room	6,000	
3	Canteen	10,000	
4	Lab	2,000	
5	Garden	2,000	
6	Construction	5,000	
	Total	30,000	

Waste water generation in the college - 18 KL/day

3. Electrical Energy

3.1 TNEB Grid Electrical Energy Consumption: 2022-2023

ELECTRICAL ENERGY CONSUMPTION IN THE COLLEGE

SI. No	Service Number	Tariff	Units Consumed
1	02 003 011 145	LM 2B1	12,544
2	02 003 011 146	LM 2B1	53,907
	Total		66,451

3.2 Diesel Generator Electrical Energy Consumption: 90 units

Total electrical energy consumption

ELECTRICAL ENERGY CONSUMPTION	UNITS
Diesel Generator (Based on diesel consumption)	90
TNEB	66,451
Total electrical ene <mark>rgy</mark>	66,541

Total Electrical Energy consumption from TNEB Grid & DG is 66,541 units

Electrical Energy consumption per stakeholder per year – 11.83 units/year

4. FUEL CONSUMPTION

4.1 LPG

LPG gas is used in the canteen for cooking and used in the college lab for heating

LPG cylinders used in the Canteen -commercial cylinders of 19 kgs capacity -10 Nos

LPG cylinders used in the College laboratories - cylinders of 19 kgs capacity - 7 Nos

- LPG consumption in the college canteen-190 Kgs
- LPG consumption in the college laboratories-133 Kgs

Total LPG consumption during the year 2022-2023 - 323KGs

5. Waste Generations and Management

5.1 Liquid and Solid Waste Generation

Waste water generation in the College - 18 KL /day

College

• Biodegradable---<1kg/day

Office

• Non-biodegradable -< 0.1kg/day

College Canteen

- Biodegradable -< 1 kg/day
- Non-biodegradable -< 0.5kg/day
- Aluminium foil ---<0.1kg/day

Open area

• Biodegradable (Dry leaves)- 5-10 Kgs/Day

Plastic waste

• Less than 100 grams. per day

e-Waste

• Less than 4 kgs/year

5.2 Waste Management

5.2.1 Liquid waste Management

- Grey water from canteen is used for gardening
- Waste water from Laboratory is neutralised and disposed safely

5.2.2 Bio-degradable waste management

- Bio-Degradable and non-biodegradable waste are collected in separate bins provided.
- Dry leaves are collected separately, dumped in the pits and converted into Bio fertilizer

5.2.3 Plastic Waste Management

• The college has been declared as a 'Plastic Free' zone.



• Plastic materials from canteen are collected separately and disposed to recyclers



• Awareness program on Plastic free Campus was conducted



- Use of polythene bags, plastic cubs and laminated papers are prohibited.
- Students and staff are advised to bring cloth bags



- All the stake holders are motivated to use stainless steel water bottles and lunch boxes.
- Plastic waste that comes in through lab equipment's package, empty chemical containers etc. are collected separately and disposed periodically for recycling.

5.2.4 Used Battery Management

Used batteries are disposed through Buy back method

5.2.5 e-Waste Management

• e- waste are collected and kept separately to avoid mixing with general waste. Arrangements are being done to dispose to authorised Recycler.

5.2.6 Other Solid Waste Management

The magnificent objective of the Institution, as its best practices, is to bring the broken desks and benches which were made from iron and wooden materials back to the usage for the benefits of the students again. Also, the Institution, with its exemplary act of recasting the materials which were of no use and worthless into the *refurbished* and brand-new desks and benches, sets certain traits for the students successfully so that they could as well cultivate the sense of belonging of the public properties. Many laboratory equipments like pipettes and burettes were made out of the wooden wastage and put in into use by science Departments.

தூக்கி வீசப்பட்ட மேஜை, நாற்காலிகள் மறுபயன்பா(

கடலூர், ஐபெர் 19, கடலூர் அர sk saigyที่เมิล บบลับเริสส पुष्पुणान ईराजाविवे जुनकेरी बीडते பட்டமேஜைகள், நாற்காலிகளை பிண்டும் மறுபபன்பாட்டுக்<u>கு</u> கொண்டு வரும் முயற்சியில் சல் லூரி நீர்வாகப் கபெட்டுள்ளது.

n god Camandia quad தல் கடந்த 1964-ஆம் ஆண்டு முதல் பெரியார் அரச கலைக் கல் gert Queder & anglings 20 துளறகளுடன் செயல்படும் இர் தக் கல்லூரியில் சமார் 5 ஆயிரம் แกลขอม แกลของสห เปลี่สัญห achdaipair. Yeanai Cong சன், இருக்கைகளுக்கான தேவை எப்போதும் அதிகமாக இருக் aut.

பொதுவாக கல்லுரிகளில் கன், தாத்காட்டினமுசையாகது 8.பிதாதி வெல்லடேசவரன், அந் சினதந்துபோனால் அவற்றை பணிகள் தொடந்து நடைபெற்று இருக்கைகள் இல்லாத கன், தாத்காலிகள் ஆலேவை நப் பொருள்களை மின்டும் சீர அவந்தில் வீடுவதே தமிழக கல்லூட வருகில்றன. சிறு மரத்துள்டுகள் இருந்தது, நற்போது, விறா சிறிது பழுது விறபட்டாலே ஒரம் வமத்து பயன்படுத்த முடிவெடுத் ரிகளில் நடைமுறையாசமன் துட தட விளைகாக வலையில் மாம் என்ன கட்டப்படும். si inGu.

Barant yayang wayar லிட்டுவிடுவார்கள். கிரானா மூலம் பழைய பொருள்களை படாத நிலையில், ஷித்து ஒதுக் கனாகதடைபெற்று வருகிறது. கப்பட்ட பொருள்களின் எண்



கடலூர் பெரியார் அரசுக் கல்லூரி வனகத்தில் குணித்து கிடக்கும் பழைய நாற்காலிகள், மேல nggan (வலது) சிரமைக்கப்பட்ட இருக்கைகளுக்கு வண்ணம் பூசம் பனியை பார்வையிட்ட கல்லூரி முதல்வர் கி.ஜோதி வெங்கடே

5m.

பொருள்கனாகக் கருதி எலத்தில் கார்கள், வண்ணம் பூசவோர் தோம். รทะปฏิติต์ இந்தக் கல்துரர் செயல் புதுப்பிக்கும் பனர் வடத்த 2 மாதங் கன் ரோவடக்கப்பட்டுள்ளன. இருப்பு பேன்றனை சீரளவக்கும்

ணிக்கை அதிகமானது. இவற்றை கூறியதாவது: மேஜைவன், நாற் மேஜைகளும், மர நாற்காலிகளும் எல்லுரிறில் விழா அரங்கம் னான் மாணவர்களில் நிற பார்வைபிட்டகல்லூரி முதல்வர் காலிகள், தனவாட பொருள்கள் செப்பப்பட்டுள்ளன. இந்தப் உள்ளபோதும் அங்கு போதிய படுத்தப்படுகிறது என்றார்.

இவதபடுத்து, நச்சப் பணியா மீண்டும்பயன்படுத்தமுடிவெடுத் நப்படுகின்றன.

இதுவரை 234 இரும்பு மேறை Aughts anget water with so the with a start

ஆனால், இவற்றைச் சீரவபத்து பெட்டிகள், ஆவமாரிகளாகமாற் அவங்கரிக்கின்றன. யட்டி

இருக்கைகளுடன் இணைந்த நிறைவைத் தருதொ உடைந்தமாத் தன்டுகளை பலர் பணியும் தற்போது நடைபெற்று முறைபராயர்ப்பு நிதி,பெ

Bit Brandal Bis Ours மேலும், 100-க்கும் மேற்பட்ட புதுப்பொலிவு பெறுவது

ฏิธุญ และในอุณิสาม MFAut sups BB, saight





Glass wastes are disposed periodically through municipal waste collection system.

6. Pollution abatement measures

6.1 Waste Reduction

- Students are instructed not to waste paper while writing examinations.
- Reusing one side paper
- Where ever possible, printing on both sides of papers
- In order to reduce the use of paper the following initiative were taken by E -Governance
 - Attendance
 - Payment of fees
 - Submission of e-assignment through email
 - Digitalisation of Staff profiles and details about students
 - E Circular through SMS, WhatsApp or Email
 - Online Admission Process Printing of applications reduced & submission of applications through admission portal.

6.2 Waste Recycling

The answer scripts after the publication of results are collected and sent for recycling.

- Paper waste disposed during the year 2022-2023 was 150 Kgs
- Many laboratories equipment like pipettes and burettes were made out of the wooden wastage and put in into use by science Departments.
- 300 sets of student benches, from the scrapes of iron were put into use

6.3 Waste Reuse

- Reuse one sided paper
- Reuse Envelopes

6.4 Waste to wealth

• Dry leaves are converted into bio fertilizer

6.5 Water Conservation initiatives

• Periodical preventive maintenance is carried out to avoid leakages

6.6 Energy conservation activities followed

- Staff and Students are made aware of using public transport and individual vehicle usage is reduced to the minimum level
- Periodical maintenance and overhauling of generators is being carried out
- Maximum utilisation of day lights
- The fans, lights, air-conditioners and other electronic and electrical equipments are switched off when not in use.
- Replacing conventional electrical light fittings with energy efficient Light-Emitting Diode (LED) bulbs.
- Computers are switched to sleep mode or hibernate mode automatically when not in use.
- At the end of every practical session, Computer monitors and UPS are switched off.
- Soft copies are maintained instead of hard copies, to reduce power consumption and paper.
- Work supervisor regularly check the usage of lights, fans and all other energy sources during and out of the college hours.
- Lights and fans are switched off by the students and staffs whenever they are out of class rooms

7. Greenbelt Development

Periyar Arts College Devanampattinam, Cuddalore being located in the regime surrounded by agriculture-based villages, naturally the institute is overwhelmed with the atmosphere of greenery. The Institution too does ever take meticulous efforts to maintain and retain the Nature given atmosphere with planting of new saplings The campus is lush green with gardens, lawns and plants wherever there is open space



- The eco-friendly ambience of the campus is a noteworthy feature of Periyar
 Arts College Devanampattinam, Cuddalore.
- Green belt is developed in all possible open area
- The Green Club, NSS/NCC are maintaining a medicinal garden plant which is spread over 200 sqft area. Around 34 numbers of medicinal plants are there inside the campus
- Special initiatives are taken by the Green Club, NSS/NCC and new saplings are planted every year. Altogether, there are 41 fully grown trees are there in the campus.
- World Environmental Day is being celebrated every year on 5th June by planting trees
- The list of trees and the arrival of new saplings are recorded every year.
- Environmental awareness rallies are conducted regularly to spread the message of environmental preservation

Herbal Garden



Herbal Garden/Medicinal Garden details

Medicinal Herbs Plants				
SI.No	Botanica <mark>l Name</mark>	Tamil Name	Family	
1	Cassia occidentalis	பேய் அவரை	Caesalpinaceae	
2	Catharanthus roseus	நித்தியகல்யாணி	Apocynaceae	
3	Acalypa indica	குப்பைமேனி	Euphorbiaceae	
4	Leucas spera	தும்பை	Lamiaceae	
5	Commelina benghalensis	கானாவாழை	Commelinaceae	
6	Calotrophis sp.	எருக்கு	Apocynaceae	
7	Boerhaavia diffusa	மூக்கரட்டை	Ncytaginaceae	
8	Tridax procumbens	<mark>கிணற்று பாச்சான்</mark>	Asteraceae	
9	Nerium oleander	வெள்ளை அரளி	Apocynaceae	
10	Hemidesmus indicus	நன்னாரி	Apocynaceae	
11	Rauolfia tetraphylla	சா்பகந்தா	Apocynaceae	
12	Mimosa pudica	தொட்டாற் சுரங்கி	Fabaceae	
13	Achryanthes aspera	நாயுருவி	Amaranthaceae	
14	Coccinia indica	கோவை	Cucrbitaceae	
15	Tinospora cordifolia	சீந்தில் கொடி	Menispermaceae	
16	Phyllanthus amarus	கீழா நெல்லி	Phyllanthaceae	
17	Ixora coccinea	வெட்சி	Rubiaceae	

18	Tribulus terretris	நெருஞ்சி	Zygophyllaceae
19	Croton sparsiflorus	வெட்டுக்காய பூண்டு	Euphorbiaceae
20	Physalis minima	சிறுதக்காளி	Solanaceae
21	Solanum nigrum	மணத்தக்காளி	Solanaceae
22	Solanum trilobatum	தூதுவளை	Solanaceae
23	Ricinus communis	ஆமணக்கு	Euphorbiaceae
24	Ipomoea pes-caprae	குதிரைகுளம்பு கொடி	Convolvulaceae
25	Lantana camara	<mark>உ</mark> ண்ணிச் செடி	Verbenaceae
26	Abutilon indicum	<mark>வட்</mark> டத்துத்தி	Malvaceae
27	Cardiospermum halicacabum	<mark>முடக</mark> ்கத்தான் கீரை	Malvaceae
28	Passiflora foetida	<mark>கொ</mark> டி மாதுளை	Passifloraceae
29	Ziziphus jujuba	இலந்தை	Ziziphaceae
30	Cyperus rotundus	<mark>கோரை புல்</mark>	Cyperaceae
31	Cleome viscosa	நாய் வேளை	Cleomaceae
32	Euphorbia hirta	அம்மான் பச்சரிசி	Euphorbiaceae
33	Alternanthera <mark>sessilis</mark>	பொன்னாங் கண்ணி	Amaranthaceae
34	Cyndon dactylon	அருகம் புல்	Poaceae

ALGEO

Green Belt Development







List of Trees

SI. NO	BOTANICAL NAME	FAMILY	TAMIL NAME	LOCATION
1	Terminalia Arjuna (Roxb)	Combretaceae	மருத மரம்	Opposite Office
2	Bauhinia Purpurea	Fabaceae	சிவப்புமந்தாரை	Opposite Office
3	Azadiracta Indica	Meliaceae	வேம்பு	Opposite Office
4	Cassia Fistula	Fabacea <mark>e</mark>	சரக்கொன்றை	Opposite Office
5	Thespesia Populnea (L.)Sol.Ex	Maluaceae	பூவரசு மரம்	Opposite Office
6	Terminalia Catappa L.	Corb <mark>retacecae</mark>	<mark>பாதாம் மரம்</mark>	Opposite Office
7	Eucalyptus Globuluslabill	Myrtaceae	<mark>தை</mark> லமரம்	Opposite Office
8	Ficus Benghalensis L.	Moraceae	ஆலமரம்	Opposite Office
9	Enterolobium Saman(Jaca)Merr	Fabaceae	தூங்குவாகை மரம்	Opposite Office
10	Coccus Nucifera(L)	Arecaceae	தென்னை மரம்	Opposite Physics Lab
11	Polyalthia Longifolia(Sonn.)	Annoceae	நெட்டிலங்கம்	Opposite Physics Lab
12	Enterolobium Saman(Jaca)Merr	Fabaceae	தூங்குவாகை மரம்	Opposite Physics Lab
13	Odina Wodier Roxb	Anacardiaceae	ஒதியமரம்	Opposite Physics Lab
14	Pongamia Glabra Vent.	Fabaceae	புங்கைமரம்	Near Car Parking
15	Enterolobium Saman(Jaca)Merr	Fabaceae	தூங்குவாகை மரம்	Opposite Priyar Statue
16	Melia Composita Willd.	Meliaceae	மலைவேம்பு	Near Main Gate
17	Calophyllum Inophyllum L.	Calophyllaceae	புன்னை மரம்	Near Main Gate
18	Phyllanthus Emblica L.	Phyllanthaceae	நெல்லி மரம்	Opposite Old Office
19	Borassus Flabellifer L.	Arecaceae	பனைமரம்	Opposite Old Office
20	Mimusops Elengi L.	Sapotaceae	மகிழமரம்	Opposite Old Office
21	Eugenia Jambolana Lam.	Myrtaceae	நாவல் மரம்	Opposite C Block

22	Enterolobium Saman(Jaca)Merr	Fabaceae	தூங்குவாகை மரம்	Opposite C Block
23	Enterolobium Saman(Jaca)Merr	Fabaceae	தூங்குவாகை மரம்	Car Parking
24	Ficus Benghalensis L.	Moraceae	ஆலமரம்	Near Social Work Department(M.S.W)
25	Terminalia Catappa L.	Combretaceae	பாதாம்	Near Social Work Department(M.S.W)
26	Pongamia Glabra Vent.	Fabaceae	புங்கைமரம்	Near Social Work Department(M.S.W)
27	Azadiracta Indica	Meliaceae	வேப்பமரம்	Near Social Work Department(M.S.W)
28	Coccus Nucifera(L)	Arec <mark>aceae</mark>	தென்னை <mark>ம</mark> ரம்	Near Library
29	Terminalia Catappa L.	Combretaceae	பாதாம்	Near Library
30	Terminalia Arjuna (Roxb)	Combretaceae	மருத மரம்	Near Library
31	Pongamia Glabra Vent.	Fabaceae	<mark>புங்கை</mark> மரம்	Near Library
32	Enterolobium Saman(Jaca)Merr	Fabaceae	தூங்குவாகை மரம்	Near History
33	Azadiracta Indica	Meliaceae	வேப்பமரம்	Opposite Library
34	Coccus Nucifera(L)	Arecaceae	தென்னை மரம்	Near MLA Buiding
35	Azadiracta Indica	Meliaceae	வேம்பு	Near MLA Buiding
36	Ficus Religiosa	Moraceae	அரச மரம்	Opposite Political Science Department
37	Azadiracta Indica	Meliaceae	வேம்பு	Opposite Political Science Department
38	Pongamia Glabra 🤚 Vent.	Fabaceae	புங்கைமரம்	Near MGR Buiding
39	Ficus Benghalensis L	Moraceae	ஆலமரம்	Near Gate
40	Pongamia Glabra Vent.	Fabaceae	தூங்குவாகை மரம்	Opposite Gate
41	Artabotrys Hexapetalus	Annonaceae	மனோரஞ்சிதம்	Opposite Chemistry Lab

Awareness programs/workshop conducted related to Environment (both inside and outside college campus)

TREE PLANTATION

Activity	:	Tree Plantation
Date	:	17.04.2023
Organized by	:	SOCIAL WORK



மேல் கவரப்பட்டு ஊராட்சியில் கிராமிய முகாம்



கடலூர் அரசு பெரிகாரச்சைலக் கல்தூரி மற்றும் YIS FOUNDATION இணைத்து நடத்தும் இரசம்பெ முகாம் கடலூர் மாலட்டம் அண்ணைறினால் ஒன்றீயல் முகாம் முத்து தாடகன் 77,04,2033 முதல் 204,2033 வரை நடத்தி வருதிலர்கள் இதில் இரண்டாம் நானான மரசுக்கு ந இதில் பிரியரர் அரசு கலைக ஸ்லூரிலீயில் முதல்வர் முனைவர் இதில் பெரியார் அரசு கலைக ஸ்லூரிலீய முதல்வர் முனைவர் இரு இ வெக்கடேஸ்வரங் தலைமை ராமதைஞ்சையன் சாத்தி முன்னிலையில் பைபனில் துறை தலைவர் முனைவர் . கேற் பாமன் ஆனர்கள் மற்றும் நார்சியாக்கள் முனைவர் கே. சூமார், கைவாக் க. லிசோத் முனைவர் கே. சைத்து இவர்களுடன் இணைத்து vesnotation திறுவசனா ப. இருத்தனைர்த்தி வக்குவர் ப. ரஞ்சித் குமார், பொற்வாளர் மன்ற சிறுப்பு அன்புப்பானர்கள் ராட்சி மன்ற தலைவர் ஷபில் முன்றுபர் நாட்சு மன்ற கலைவர் ஷபில் முன்றுபர் தப்பால், வனராட்சி மன்ற தலைவர் சன்தல், இவிதி அதிகாரி சிவந்துரை ஸ்னர் ஊராட்சி மன்ற தலைவர் சன்சோன் ஊராட்சி மன்ற தலைவர்

Activity	:	International Day of Forests
Organized by	:	NSS





25.07.2022 INSERVICE TRAINING TO SCIENCE TEACHERS



05.06.2022-WORLD ENVIRONMENT DAY-GCC



03.06.2022 – TREE PLANTATION



24.09.2022 200 TREE PLANTATION

8. Rainwater Harvesting

At Periyar Arts College Devanampattinam, Cuddalore, rainwater harvesting is done effectively to enhance the ground water level. The institution has rainwater harvesting pits at various locations and they are being maintained properly. The water drained during the rainy season is allowed to flow into the pits constructed in various places inside the campus



Rainwater harvest system was implemented in all the buildings. In addition, rainwater collection pond was created to maximise the collection of rainwater



9. AMBIENT AIR

9.1 Green House Gas Emission

Green House Gas emission due to petrol Green House Gas emission due to diesel Green House Gas emission due to LPG Green House Gas emission due to Grid power

Total GHG emission per year

9.2 Ambient Air Quality

Flue gas emission sources

- LPG combustion at canteen and labs
- Diesel generator at college

Fuel consumption per year

- LPG -323 Kgs
- Diesel for generator 30 litres

Fuel consumption per day

- Average LPG consumption per day- 1.79 kgs
- Average diesel consumption per day-0.16 litres

Combustion of LPG is NOT CONTINUOUS process

DIESEL Generator will run only when TNEB grid power fails

Considering the above situation, the quantity of flue gas emission and the impact on ambient air quality from the above combustions are negligible

9.3 Noise level Noise level inside the campus

SI. No	Location	Max value in dB	Average Value in dB
1	Near Main Entrance	62.7	58.6
2	Near Principal Office	55.1	51.3
3	Near Department of Zoology	56.8	49.8
4	Near Department of Botany	57.3	51.2
5	Near College Canteen	63.9	57.8
6	Near Department of Microbiology	55.9	51.6

- Diesel Generators (DG) sets do not run on a continuous basis. Only during power failure, DG sets are operated during the working hours of the College.
- During planned shutdown hours, DGs run continuously based on the load Noise disturbance due to DG set is negligible.

 27435.00
 Kge CO2

 80.10
 Kge CO2

 978.69
 Kge CO2

 47180.21
 Kge CO2

 75.67 t CO2 eq

10. Audit Findings & Recommendations

Noteworthy activities

- Initiation of Green Belt Development for the entire college campus
- Maximum utilisation of public transport system by students for commutation is highly appreciable
- Plastic waste collection and disposal system at the canteen
- Rainwater collection pond and harvest system for all buildings
- Clean, Green and plastic free campus

Findings

- Air pollution impact on Ambient Air quality is negligible since the quantity of fuel used for combustion in the institution is very less
- Noise levels inside the campus are within the prescribed limit.
- Very good initiative is taken by the institution to reduce paper consumption, collection of waste paper and disposal for recycling.
- Lot of initiatives are taken to conserve Water and Energy by the Institution.
- Total water consumption for Periyar Arts College Devanampattinam, Cuddalore –30 KL/Day
- Electrical Energy consumption from TNEB GRID alone –66,451 units
- Diesel Generator electrical energy consumption- 90 units
- Total Green House Gas Emission is 75.67 t CO₂e
- Green House gas avoided due to recycling of wastes is 0.65 t CO2 e
- Green House gas absorbed by grown-up trees is 0.90 t CO2 e
- Net Green House Gas emission is 74.77 t CO₂ e
- Tree cover of the college with respect to the stakeholder strength to be improved
- Regular planting of trees inside campus are to be continued
- Water usage per day per stakeholder in the college -5.33 litres.
- Electrical Energy consumption per stakeholder per year 11.83 units/year

Recommendations

- Electrical Energy reduction through Solar PV Power Plant Shall be planned
- Flow meter to be installed to know the exact usage of water.
- Training programs in Water & Waste management, Solids and e-Waste Management, Carbon footprint concepts, Awareness on Global warming & Climate change, E -vehicle usage, Alternative Fuel usage, Renewable Energy
- Increase the number of display boards on environmental awareness such as no wastage of food, switch off light and fan after use etc

