



SREE NARAYANA COLLEGE KANNUR

ACCREDITED BY NAAC WITH 'A' GRADE (AFFILIATED TO KANNUR UNIVERSITY)

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7.1.3: Quality Audits on Environment and Energy regularly undertaken by the Institution.



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**Audit Report of
Green Audit/Environment Audit and Energy Audit**



SREE NARAYANA COLLEGE, KANNUR



Environment Audit Report

(Green audit, Energy audit & Water audit)
(Assessment Year 2021-2022)

Prepared & submitted by



Department of Environmental Studies
Kannur University
Mangattuparamba campus, Kannur - 670567

MARCH 2022



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KANNUR UNIVERSITY

(NAAC Accredited with B grade)

DEPARTMENT OF ENVIRONMENTAL STUDIES

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CERTIFICATE

This is certified that this Environment Audit Report (Green audit, Energy audit and Water audit) submitted to the Sree Narayana College, Kannur is an authentic report of Environmental audit done by the Audit Team of the Department of Environmental Studies of Kannur University at Sree Narayana College, Kannur during the period from 22nd to 27th March 2022.

Dr. Pradeepan Periyat

HEAD
DEPT. OF ENVIRONMENTAL STUDIES
KANNUR UNIVERSITY
MANGATTUPARAMBA, KANNUR
KERALA-670567

Place: Mangattuparamba

Date: 30/03/2022





NATURE SCIENCE FOUNDATION

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Certificate for Lead Auditor of Environment Management Audits



This is to certify that **Dr. A. Thangavelu**, Assistant Professor, Department of Environmental Studies, Kannur University, Mangattuparmaba Campus Kannur- 670 567, Kerala is appointed as a 'Lead Auditor of Environment Management Audits' of the Nature Science Foundation, Coimbatore, Tamil Nadu, India. The service extended by the Lead Auditor to the noble cause of environmental protection and nature conservation is extremely solicited.

It is valid upto 31st December 2026

Motto of NSF

'Save the Nature to Save the Future' & 'Go Green to Save the Planet'

Р. 114.

Chairman

Nature Science Foundation

Signature

Joint Director

Certified Lead Eco Auditor

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Certified Auditor IGBC AP

Indian Green Building Council

Signature

Certified BEE Auditor

Bureau of Energy Efficiency

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Chapter I

INTRODUCTION

I.1. Sree Narayana College, Kannur – at a glance:

Sree Narayana College, Kannur is one of the biggest institutions of higher education in Kannur District. The Sree Narayana Trusts, Kollam, established the college in honor of His Holiness Sree Narayana Guru, the great saint and social reformer of Kerala. The late Sri. R. Sankar, the founder manager, took the lead in establishing a group of establishments under the name Sree Narayana Guru. On July 6, 1960, the late R. Sankar, the then Kerala chief minister, formally inaugurated this college. From being a junior college, it has developed into a fully functional post-graduate institution with research centers connected to its graduate programs in chemistry, commerce, and zoology. Nearly two thousand students receive education at the undergraduate and graduate levels in a variety of arts, science, and commerce streams from this Kannur University affiliated college.

This college is located near Thottada, on a tranquil twenty-acre campus named "Govardhan Giri," approximately six kilometers south of Kannur town. The late Haridas Govardhandas Khimji gave Govardhan Giri for this purpose. To handle its immediate requirements, the college has a Regional Development Council (R.D.C.) led by a president. Successive R.D.Cs. have contributed significantly to the enhancement of the college's numerous infrastructure facilities. Over the course of its many years of functioning, the institution has been able to significantly contribute to the social, cultural, and educational advancement of the home district. Owing to the efforts of its students, faculty, and patrons, the college has established a reputation for exceptional achievement in both its extracurricular and academic programs.

GOVERNING BODY OF THE COLLEGE

1. **DR. M.N. SOMAN (Chairman)**
2. **MR. VELLAPPALLY NATESAN (Gen. Secretary)**
3. **MR. V.N. THUSHAR**
4. **DR. G. JAYADEVAN**
5. **MR. AJI. S.R.M**
6. **MR. MOHAN SANKAR M.**
7. **MR. N. RAJENDRAN**
8. **MR. K. PADMAKUMAR**
9. **MR. A. SOMARAJAN**
10. **MR. K.R. GOPINATHAN**
11. **MR. P.M. RAVEENDRAN**
12. **MR. SANTHOSH ARAYAKKANDI**
13. **MR. MELAMKODU SUDHAKARAN**

Sree Narayana College, Kannur

COLLEGE EMBLEM



The emblem of Sree Narayana College, Kannur, reflects the institution's dedication to the teachings and philosophy of Sree Narayana Guru. It typically includes symbols that represent purity, enlightenment, knowledge, and wisdom. These elements are designed to inspire students and staff to pursue education and personal growth, in line with the Guru's vision of social equality and progress through education.

I.2. Vision and Mission of the College

Vision

To attain the noble notion of equality based on human dignity and practice the ideal of "Enlightenment through Education" as advocated by Sree Narayana Guru.

Mission

- ❖ **Promote Education:** To provide quality education to all sections of society, especially the underprivileged, and empower them to achieve their full potential.
- ❖ **Foster Equality:** To uphold the values of equality and social justice, ensuring that education serves as a tool for social transformation.
- ❖ **Encourage Research:** To foster a spirit of inquiry and innovation through research and development activities.
- ❖ **Holistic Development:** To focus on the overall development of students, including their intellectual, moral, and physical growth.

I.3. Specific Objectives of the College

- To attain the noble notion of equality based on human dignity and thus practice the ideal "Enlightenment through Education", of the great sage, seer and philosopher, Sree Narayana Guru, on, whose name the college is founded.
- To continuously involve in the process of removing the disparities based on race, religion and caste through greater participation of the minorities and the backward communities in the mainstream of formal education as propounded by Sree Narayana Guru.
- To act as the nucleus center for higher education in the district of Kannur and thus share the efforts of the State towards removing the social, economic and cultural backwardness of the home district.
- To remove the social inequalities among people and to uplift the economically and socially downtrodden, by providing them the facility of higher education.
- To transform the students into knowledgeable, competent, socially committed and honest citizens of the motherland by inculcating the spirit of scientific temper and analytical thinking which enable them to take up the challenges of life.
- To provide competitive and quality education and to inspire scholastic and aesthetic talents of the students for empowering them to seek gainful employment.
- To realize and honour human values, justice and universal brotherhood and thus provide value-based education for the mental advancement of the students.
- To provide a healthy and peaceful atmosphere for the maximum output in the fields of learning, teaching, research and extension.

Motto

The motto of Sree Narayana College, Kannur, is inspired by the teachings of Sree Narayana Guru. It embodies the principle of "**One Caste, One Religion, and One God for man**". This motto reflects the college's commitment to promoting social equality, unity, and the pursuit of knowledge for all.

Programmes offered by the College

Programmes	Sanctioned Strength
A) UNDERGRADUATE COURSES (6 SEMESTERS)	
1. B. A. English (Cultural History of England & Intellectual History of Modern World- Complementary)	156
2. B. A. Economics (Indian History & Political Science - Complementary)	186
3. B. A. Malayalam (Sanskrit –Complementary)	171
4. B. A. History (Tourism & Political Science – Complementary)	194
5. B. B. A. (Economics, Statistics and Information Technology – Complementary)	273
6. B. Sc. Physics (Chemistry & Mathematics – Complementary)	142
7. B. Sc. Zoology (Botany & Chemistry - Complementary)	97
8. B. Sc. Microbiology (Zoology & Chemistry – Complementary)	117
9. B. Sc. Mathematics (Statistics & Physics – Complementary)	157
10. B. Sc. Botany (Zoology & Chemistry – Complementary)	111
11. B. Sc. Chemistry (Zoology & Chemistry – Complementary)	144
12. B. Com (Statistics & Law – Complementary)	179
B) POST GRADUATE COURSES (4 SEMESTERS)	
1. M. A. English	31
2. M. A. Economics	44
3. M. Sc. Chemistry	24
4. M. Sc. Physics	33
5. M. Sc. Zoology	34
6. M.Sc. Mathematics	34
7. M. Com. Accountancy and Finance	38

I.4.Total Campus Area and Built-up Area:

Sree Narayana College, Kannur			
Location	Total campus area in acres	Built up area and others in square meters	
Urban	20.35	Total Built up Area	12632.57
		Total Green Area	7508.30
		Library	962.28
		Canteen	163.14
		Hostel	11695.41

I.5. Infrastructure facilities of the college:

1. Library and Reading Room: Library and reading room are the heart of Sree Narayana College, Kannur, slated to serve the educational, informational and research requirements of the faculty, students and researchers of the college. The computerized Central Library caters to the needs of the entire student community, research scholars and staff (both Teaching and Non-Teaching) of the college. The General library is housed in a separate block with an approximate build up area of 3840 sq. ft spread over two floors of the Jubilee Building of the college. The ground floor houses the general library section and reference and reading room are accommodated in the first floor. The library functions from 9 am to 5 pm on all working days, including Saturdays and also during vacations. The library possesses a rich collection of 48063 books, 30 journals and 20 periodicals/dailies, kept in an organized manner and displayed in the library. It also has a video library of NPTEL courses having a total capacity of 8 TB. The library also stores bound columns of Journals and CDs. In addition, the library also has a separate collection of books for competitive examinations.

Since 2011, all of the library's operations have been automated with Grandha Soft, developed by Grandha Associates, Pathanamthitta. The library is now using the upgraded version. The software includes modules such as Acquisition, Data Entry (in Malayalam and English), Circulation, DDC 23rd Edition English and Malayalam categorization, Dues Calculation, Stock Verification, and OPAC (Online Public Access Catalogue). Bibliographical information on the materials and their availability in the library is provided by the Computerized Catalogue Service, which makes searching and obtaining books and journals quick and simple. There are five terminals available for this facility. The web OPAC will help the users to search books available in the library without coming to the library.



Fig 1. General Library of Sree Narayana College, Kannur

2. Hostel: Sree Narayana College, Kannur offers a well-equipped hostel for girls close to the campus to ensure that they live in a healthy atmosphere free from barriers to learning and growth. There are two hostels for girls that can accommodate a combined total of 120 students. A chief matron is in charge of running the hostel. Every room is equipped with plenty of amenities, giving students a comfortable and cozy atmosphere. First -come, first-served policy governs the assignment of hostel rooms. Breakfast, lunch, supper, and evening drinks are served at the hostel mess. The mess committee regularly checks the food served in the mess for quality and cleanliness.



Fig 2. Ladies Hostel of Sree Narayana College, Kannur

3. Computer Centre: The college offers four computer centers with 110 computers, the majority of which have LAN capabilities and fiber optic 10MBPS internet connectivity. To fulfill the needs of the entire campus community, computer laboratories also provide printer and scanner facilities. The staff and students are assisted in using these services by the computer assistant. Five well-equipped PCs with internet access are part of the computerized central library. Additionally, computers with internet access, printers, and scanners are available in every departmental staff area. The school offers computer facilities, LCD projectors, over-head projectors, and smart boards for ICT-enabled teaching. Moreover, audiovisual tools are employed in teaching. Furthermore, seminar halls are frequently used for educational purposes.



Fig 3. Computer lab of Sree Narayana College, Kannur

4. Student Gymnasium: The aim of the gymnasium is to promote sports activities and the general health of the students participating in sports and games. It is connected to the physical education department and furnished with body building equipments.



Fig 4. Gymnasium present in the campus

5. Seminar Halls & Auditorium: A well-arranged auditorium is situated in the college in a separate block with a seating capacity of 1000. Audio Visual facility is available in the auditorium. Acoustics are properly maintained and balcony seating is arranged in the room. Auditorium stage is equipped with light and sound arrangements.

Three seminar halls are present in the campus. Seminar Hall-I is air conditioned, accommodating 120 seats with audio visual and LCD projection facilities with toilets at a nearby point. Seminar Hall-II accommodates 60 seats with Audio visual and LCD projection facilities. Seminar Hall – III involves 80 seats with Audio visual and LCD projection facilities in Economics Department.



Fig 5. Auditorium and Seminar Hall in the campus

6. IQAC: Sree Narayana College Kannur has established an Internal Quality Assurance Cell (IQAC) as a continuous post-accreditation quality sustenance measure for the enhancement and sustenance of quality in higher education. The IQAC is integrated into the institution's system and embodies commitment to performance evaluation, assessment, and accreditation. An IQAC room is present in the college to organise and schedule matters related to IQAC.



Fig 6. IQAC Room of Sree Narayana College, Kannur

7. Faculty: Teachers are qualified and knowledgeable so that the students can catch up easily. College has 87 faculty members and 10 non-teaching staff. Among the full-time faculty members, 27 have obtained their Ph.D. Apart from Ph.D. holders, 16 faculty members possess M.Phil. Degree. Some of the teachers have recognized as research supervisors by the Kannur University.

8. College Canteen: The College runs a canteen inside the campus. Students and staff are provided food at concessional rates.

9. Reprographic Centre: Reprographic centre is functioning in the college. It is equipped with photostat machines. Printing facility is available in the Reprographic Centre.

10. Student Co-operative Store: A student's co-operative store is functioning in the college to help the students to procure their text books, note books, record books, stationery etc. at a comparatively low price.

11. Staff Co-operative Society: A staff Co-operative Society is functioning in the college to offer ordinary banking facilities to the members.

12. Sports: The record of achievements of the Department of Physical Education forms one of the biggest strengths of the college through the last five decades. The college has been

consistently and progressively maintaining and bettering its track record in the field of sports and games at both intercollegiate and interuniversity levels by producing a number of achievers at state and national events.

Facility	No	Description
Facilities for Sports, Indoor and Outdoor games		
Football Field	1	100m X 70m outdoor Football and Hockey Field, established in 1970
Basketball Court	1	Well-furnished 32m X 18m outdoor Basketball court near the college main gate, established in 2013
Shuttle badminton Court	1	18m X 10m indoor shuttle badminton court inside college auditorium, established in 2001
Ball badminton Court	1	28m X 12m Ball badminton court near the college main gate, established in 2013
Table Tennis Arena	2	One Table tennis arena in college auditorium and the other is near to Physical education department established in 2000
Wrestling Arena	1	Indoor Wrestling arena of area 64m ² , with 40 numbers of wrestling mattresses, established in 2000
Gymnasium	1	Gymnasium of area 64m ² with all kinds of weight training equipments, established in 2014
Rest room for girls	1	Rest room for girls with attached toilet of area 28m ² near Physical education department
Indoor Stadium	1	UGC funded indoor stadium of size 36m X 24m X 12.5m

I.6. DETAILS OF BUILDINGS

Particulars	No. of rooms available	Dimensions (Sq. meter)
1. Classrooms	30	70
	21	60
2. Lecture/Seminar Halls		
◆ Conference Hall	3	140
Auditorium	1	800
3. Staff/Department Rooms		
◆ Botany	2	40
◆ BBA	1	50
◆ Commerce	2	50
◆ Chemistry	2	50
◆ Economics	2	50
◆ English	2	50
◆ History	1	40
◆ Malayalam	2	40
◆ Mathematics	2	40
◆ Microbiology	1	50
◆ Physics	2	50
◆ Zoology	1	800
4. Principal's Room	1	75
5. Office Room	1	220
6. Lab facilities		
◆ Zoology Lab	4	225
◆ Botany Lab	1	200
◆ Physics Lab	2	220
◆ Chemistry Lab	3	220
◆ Microbiology Lab	1	200
◆ Research Lab	5	200
7. Library	1	350
8. Computer Lab	3	200
◆ Computer Lab		
9. Other Room Facilities		
◆ Research Room	5	200
◆ Lecture Hall		

◆ Reprographic Centre		
◆ Photostat Centre	1	60
◆ NCC Room	1	25
◆ NSS Room	1	25
◆ IQAC	1	150
10. Toiletries		
◆ Student's Washroom (Boys) (Department)	3	60
◆ Girls Toilet	3	60
◆ Girls Room	1	60
◆ Department Toilets	12	50
◆ For Disabled	1	50
◆ For Staff	3	50
◆ Girls Room Wash Area	1	50

I.7. College rules

- Attendance will be taken at the beginning of each class. Absence during one period in the FN will be counted as absence in the FN session and absence in one period in the AN will be counted as absence in AN session.
- No student will be allowed to leave the class during class hours without the permission of the Head of the Institution.
- Students are expected to be cleanly and suitably dressed in their class as well as at any gathering within the college premises. Students should observe strict modesty in dress.
- Students shall always behave, with dignity and courtesy.
- As discipline is highly essential for the smooth working of the college, each and every student shall maintain it at any cost.
- Loitering through the corridors, hooting in the class rooms and other undesirable activities which disturb the calm atmosphere of the college are strictly forbidden.
- Absolute obedience is expected from every student. If any one tries to defy the authority of the principal or any teacher, he/she will be punished.
- Smoking is strictly prohibited in the college campus
- Students are forbidden to participate in any meeting or agitation directed against the authority of the Government or the college.
- No meeting or entertainments shall be organised or any fund collected in the college or hostel without the permission of the Principal.
- No student shall join or work for any organisation outside the college without the permission of the Principal.

- No student shall disfigure the walls and windows or furniture by writing on them. If any student damages or destroys any college property he/she will have to pay the cost of repair.
- Students who have no class to attend at any particular hour should remain in the reading room.
- Women students in particular, should not remain in class room when they have no class. They may proceed to the girls room or the library.
- Every student is expected to take part in one or more of the games for which facilities are provided by the college.
- Identity Cards:- All students admitted to the college shall keep with them their identity cards, with recent passport size photograph, duly attested by the Principal. All payments, issue of certificates etc. will be made to the students only on production of their identity card.
- Any tampering or disfiguring made on identity cards will be considered as a serious offence. Such identity cards will be cancelled and no new cards will be issued. The identity card shall be surrendered in the office at the time of issue of transfer certificate or on the completion of the course whichever is earlier.
- Hostel: No student will be allowed to stay out of the hostel after 6.30 p.m. except with the special permission of the resident tutor.
- If any student violates the rules and regulation stated above the Principal has absolute authority to expell him/her from the college.
- Use of mobile phones on college campus is strictly prohibited. It is a punishable offence as per court orders.
- All students shall wear the identity tag provided by the college in the college campus.

Chapter II

ENVIRONMENT AUDIT

II.1. Environment audit:

Environment audit is a method of assessing an organization's activities that is systematic, recorded, repeated, and objective and services in relation to:

- Assessing compliance with relevant statutory and internal requirements
- Controlling environmental activities under management is simplified.
- Promoting good environmental management
- Maintaining credibility with the public
- Raising staff awareness and enforcing commitment to departmental environmental policy
- Exploring improvement opportunities
- Establishing the performance baseline for developing an Environmental Management System

Conducting a green audit is no longer an option but a sound precaution and a proactive measure in today's heavily regulated environment. Indeed, evidence suggests that Environmental Audit has a valuable role to play, encouraging systematic incorporation of environmental perspectives into many aspects of an organization's overall operation, helping to trigger new awareness and new priorities in policies and practices.

The Green Auditing completed at Sree Narayana College is an innovative approach towards empowering the students and teachers in order to improve the existing environmental conditions in and around their campus. The main intention of the programme was to assess the existing biodiversity and natural resource (energy & water) management of the campus through active participation of the institutional community. The conservation of Natural resource through a participatory approach is the main agenda of Environment Auditing, which will make the community more aware about the nature and natural resources. Environment auditing involved the assessment of different components of the campus like Energy, Water, Biodiversity and Waste. The college which has undergone the proposed Environment auditing requires the assistance of any of the experts for biodiversity studies, natural resource management, energy conservation activities, etc.

Scope and Goals of Environment Auditing:

Green audit serves as a means to identify opportunities to sustainable development practices, enhance environmental quality, improve health, hygiene and safety, reduce liabilities and save money and achieve values of virtue. Environmental audits can be a highly valuable tool for colleges in a wide range of ways to improve their environmental and economic performance and reputation while reducing wastage and operating costs. Once baseline data is prepared after the auditing process, the data can serve as a point of departure for further action in campus greening.

Aim:

To conduct Environment Audit (Green audit, Energy audit and Water audit) of Sree Narayana College, Kannur so as to assess the environmental consciousness of college community.

II.2. General and Specific Objectives of Green Auditing

The general objective of green audit is to prepare a baseline report on biodiversity and other resources, measures to mitigate resource wastage and improve resource quality and sustainable practices.

The specific objectives are:

- To prepare a checklist of flora and fauna diversity in and around the College campus.
- To suggest measures to improve biodiversity within the campus.
- To monitor the energy consumption pattern of the College
- To assess the quantity of water usage within the College campuses.
- To suggest sustainable energy usage and water conservation practices.
- To find out various sources of organic and solid waste generation and mitigation possibilities.
- To inculcate values of sustainable development practices through green audit process.
- To assess the water usage, energy consumption, and waste management of the campus.
- To assess the selected flora and fauna of the campus.
- To create awareness among the University community.

- Verification of legislative and regulatory compliance.
- Assessment of internal policy and procedural conformance.
- Establishment of current practice status.

Areas of audit:

Areas of audit encompassed of:

- ❖ Material management, savings and alternatives.
- ❖ Energy management and savings.
- ❖ Water management and economy of use.
- ❖ Waste generation, management and disposal.
- ❖ Noise reduction, evaluation and control (internal and external).
- ❖ Air emissions and indoor air quality.
- ❖ Environmental emergency prevention and preparedness.
- ❖ Transportation and travelling practices.
- ❖ Staff awareness, participation and training in environmental issues.
- ❖ Environmental information publicity.
- ❖ Public enquiry and complaints response.

Procedure:

An environmental audit is typically undertaken in three phases:

- Pre-audit
- On-site audit and
- Post-audit

Each of these phases comprises a number of clearly defined objectives, with each objective to be achieved through specific actions, and these actions yield results in the form of outputs at the end of each phase. During the initial stage of the programme, training was conducted for the college, which included teaching and non-teaching staff, representatives of the syndicate, and students.

II.3. Target Areas of Environment Auditing

- **Green Audit**

All plant and animal species including humans are linked together in a complex web of life; we depend upon biodiversity for our survival. Biodiversity is the key to healthy ecosystems and ultimately a healthy planet. It keeps the air and water clean, regulates our climate and provides us with food, shelter, clothing, medicine and other useful products. Each part within this complex web diminishes a little when one part weakens or disappears.

The trees work hard to keep the air we breathe clean and healthy. Their leaves take in much of the poisonous unwanted carbon dioxide in the air and replace it with the oxygen we need for healthy living. In this process, the plants with the help of sunlight, water, minerals and the green material called Chlorophyll within the leaves change the carbon-dioxide into food for themselves. When doing this they release oxygen into the air which is vital for all life on earth. The roots of trees dig deep into the earth and hold it together so that the rain and wind cannot wash or blow it away. This is very important as the earth has only a very thin layer of fertile soil covering it.

The audit was focused to survey for biodiversity of flora and fauna within the campus. This was helped to quantify the area covered by vegetation and to assess the amount and diversity of habitats. Through the survey the students and faculties get encouraged to device strategies to increase the level of biodiversity in their campus.

- **Energy Audit**

This indicator addresses energy consumption, energy sources, energy monitoring, lighting, appliances, and vehicles. Energy use is clearly an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment.

Energy audit was carried out by the audit team in order to assess the energy usage pattern in the college. The purpose of an energy audit is to account for consumption and recommend where savings are possible. The audit typically involved data collection and review, in that equipment survey and system measurements are also collected. Equipment survey helped to understand the system functioning, efficiency can be estimated. During the auditing, the meter readings were recorded and along with that the hours of usage were also noted. The data collected includes total monthly use in units, total cost per month, number of students and other staff on each campus, etc. which was helped to determine the daily usage of

energy per person, daily cost, etc.

- **Water Audit**

This indicator addresses water consumption, water sources, irrigation, stormwater, appliances and fixtures. Aquifer depletion and water contamination are taking place at unprecedented rates. It is therefore essential that any environmentally responsible institution should examine its water use practices.

A water audit was conducted in order to assess the daily water usage pattern in the college. Through this we have also measured the water wastage in the campus; this can be used for improving the equipments and its maintenance.

- **Biodegradable and hazardous Waste Audit**

This indicator addresses biodegradable waste from campus and hostel canteen, paper waste, hazardous waste of laboratories and worn-out electric & electronic goods, and plastic wastes. Hazardous materials represent significant risks to human health and ecological integrity. Hazardous wastes are also leached out through the e-waste generated on the campus. They often persist in the environment leaving a legacy of land and water contamination for generations. They also accumulate in the tissues of organisms and become concentrated within food chains, leading to cancer, endocrine disruption, birth defects, and other tragedies. The minimization, safe handling, and ultimate elimination of these materials are essential for the safety of the environment.

A waste audit was conducted to assess the amount of waste generated, types of waste generated and disposal methods on the campus. The amount of waste generated on the campus was assessed through a survey, which provided baseline data. It helped to identify the waste generation on the campus. The survey quantified the waste streams, the effectiveness of the existing waste management systems on the campus, etc. This helped to identify the ways to reduce waste, the need for implementing new waste management strategies. Waste audits helped in waste diversion and waste reduction, and this provided a healthy environment.

Audit Forms used for Data Collection: The various forms used for the data collection is given in the appendix -1



Chapter III

GREEN AUDIT

III.1. Green Audit Statement

Sl. No.	Name of Campus	Total vegetation cover (Acres)	Number of plant species identified
1.	Sree Narayana College, Kannur	4.16	213

III.2. Biodiversity status of Sree Narayana College, Kannur

III.2.i. Floral diversity

List of plants seen in Sree Narayana College, Kannur

The biodiversity status of Sree Narayana College, Kannur is given below:

Sl. No	Scientific name	Family	Habitat
1	<i>Abrus precatorius</i>	Fabaceae	Herb
2	<i>Acacia auriculiformis</i>	Fabaceae	Tree
3	<i>Achyranthus aspera</i>	Amaranthaceae	Herb
4	<i>Adathoda vasica</i>	Acanthaceae	Herb
5	<i>Adenantha pavonine</i>	Fabaceae	Tree
6	<i>Aegle marmelos</i>	Rutaceae	Tree
7	<i>Aerva lanata</i>	Amaranthaceae	Herb
8	<i>Aeschynomene americana</i>	Mimosaceae	Herb
9	<i>Ageratum conyzoides</i>	Asteraceae	Herb
10	<i>Allamanda cathartica</i>	Apocynaceae	Shrub
11	<i>Allophylus serratus</i>	Sapindaceae	Shrub
12	<i>Aloe vera</i>	Liliaceae	Herb
13	<i>Alstonia scholaris</i>	Apocynaceae	Tree
14	<i>Alternanthera sessilis</i>	Amaranthaceae	Herb
15	<i>Alternanthera tenella</i>	Amaranthaceae	Herb

16	<i>Alysicarpus ovalifolius</i>	Fabaceae	Herb
17	<i>Alysicarpus vaginalis</i>	Fabaceae	Herb
18	<i>Andrographis paniculata</i>	Acanthaceae	Herb
19	<i>Annona reticulata</i>	Annoaceae	Tree
20	<i>Aristolochia indica</i>	Aristolochiaceae	Climber
21	<i>Arundinella</i> sps.	Poaceae	Herb
22	<i>Asystasia gangetica</i>	Acanthaceae	Herb
23	<i>Averrhoa bilimbi</i>	Oxalidaceae	Tree
24	<i>Axonopus compressus</i>	Poaceae	Herb
25	<i>Azadirachta indica</i>	Meliaceae	Tree
26	<i>Bacopa monnieri</i>	Scrophulariaceae	Herb
27	<i>Bauhinia accuminata</i>	Caesalpinaceae	Shrub
28	<i>Bauhinia purpurea</i>	Caesalpinaceae	Tree
29	<i>Bignonia grandiflora</i>	Bignoniaceae	Creeper
30	<i>Biophytum sensitivum</i>	Oxalidaceae	Herb
31	<i>Blumea oxyodonta</i>	Compositae (Asteraceae)	Herb
32	<i>Boerhaavia diffusa</i>	Nyctaginaceae	Herb
33	<i>Bougainvillea spectabili</i>	Nyctaginaceae	Climber
34	<i>Brachiaria ramosa</i>	Poaceae	Herb
35	<i>Brachiaria remota</i>	Poaceae	Herb
36	<i>Breynia vitisidaea</i>	Phyllanthaceae (Euphorbiaceae)	Shrub
37	<i>Bridelia retusa</i>	Phyllanthaceae (Euphorbiaceae)	Tree
38	<i>Bridelia scandens</i>	Euphorbiaceae	Tree
39	<i>Calotropis gigantea</i>	Asclepiadaceae	Shrub
40	<i>Capsicum frutescens</i>	Solanaceae	Shrub
41	<i>Carallia brachiata</i>	Rhizophoraceae	Tree
42	<i>Cardiospermum helicacabum</i>	Sapindaceae	Climber
43	<i>Carica papaya</i>	Caricaceae	Tree
44	<i>Carallia intergersima</i>	Rhizophoraceae	Tree
45	<i>Caryota urens</i>	Arecaceae	Tree
46	<i>Cassia alata</i>	Caesalpinaceae	Shrub
47	<i>Cassia fistula</i>	Caesalpinaceae	Tree

48	<i>Casuarina equisetifolia</i>	Casuarinaceae	Tree
49	<i>Catharanthus roseus</i>	Apocynaceae	Herb
50	<i>Centella asiatica</i>	Apiaceae	Herb
51	<i>Centratherum punctatum</i>	Asteraceae	Herb
52	<i>Centrosema molle</i>	Papilionaceae	Climber
53	<i>Chamaecristaem imosoides</i>	Mimosaceae	Shrub
54	<i>Chassalia curviflora</i>	Rubiaceae	Shrub
55	<i>Cinnamomum zeylanicum</i>	Lauraceae	Tree
56	<i>Cissus latifolia</i>	Vitaceae	Climber
57	<i>Cissus quadrangularis</i>	Vitaceae	Climber
58	<i>Citrus limon</i>	Rutaceae	Tree
59	<i>Cleome viscosa</i>	Capparidaceae	Herb
60	<i>Clerodendrum infortunatum</i>	Lamiaceae	Shrub
61	<i>Clitoria ternate</i>	Papilionaceae	Climber
62	<i>Coleus aromaticus</i>	Lamiaceae	Herb
63	<i>Commelina kurzii</i>	Commelinaceae	Herb
64	<i>Corchorus aestuans</i>	Malvaceae	Herb
65	<i>Costus spicatus</i>	Zingiberaceae	Herb
66	<i>Crotalaria pallida</i>	Papilionaceae	Herb
67	<i>Cryptostegia grandiflora</i>	Apocynaceae	Climber
68	<i>Curculigo orchioides</i>	Hypoxidaceae	Herb
69	<i>Curcuma longa</i>	Zingiberaceae	Herb
70	<i>Curcuma zedoaria</i>	Zingiberaceae	Herb
71	<i>Cyanotis cristata</i>	Commelinaceae	Herb
72	<i>Cyathula prostrata</i>	Amaranthaceae	Herb
73	<i>Cycas revoluta</i>	Cycadaceae	shrub
74	<i>Cyclea peltate</i>	Menispermaceae	Climber
75	<i>Cynodon dactylon</i>	Poaceae	Herb
76	<i>Cyperus rotundus</i>	Cyperaceae	Herb
77	<i>Dactyloctenium aegyptium</i>	Poaceae	Herb
78	<i>Datura stramonium</i>	Solanaceae	Herb
79	<i>Delonix regia</i>	Caesalpinaceae	Tree

80	<i>Dendrocalamus giganteus</i>	Poaceae	Tree
81	<i>Desmodium gyrans</i>	Fabaceae	Shrub
82	<i>Desmodiums corpiurus</i>	Papilionaceae	Herb
83	<i>Desmodium triflorum</i>	Papilionaceae	Herb
84	<i>Dipteracanthus prostrates</i>	Acanthaceae	Herb
85	<i>Durantha repens</i>	Verbenaceae	Shrub
86	<i>Elephantopus scaber</i>	Asteraceae	Herb
87	<i>Eleusine coracana</i>	Poaceae	Herb
88	<i>Eleusine indica</i>	Poaceae	Herb
89	<i>Eragrostis unioloides</i>	Poaceae	Herb
90	<i>Eragrostis viscosa</i>	Poaceae	Herb
91	<i>Eryngium caeruleum</i>	Apiaceae	Herb
92	<i>Eupatorium odoratum</i>	Asteraceae	Shrub
93	<i>Euphorbia heterophylla</i>	Euphorbiaceae	Herb
94	<i>Euphorbia hirta</i>	Euphorbiaceae	Herb
95	<i>Euphorbia thirucalli</i>	Euphorbiaceae	Shrub
96	<i>Evolvulus nummularis</i>	Convolvulaceae	Herb
97	<i>Ficus recemosa</i>	Moraceae	Tree
98	<i>Flueggea leucopyrus</i>	Euphorbiaceae	Shrub
99	<i>Flueggea virosa</i>	Phyllanthaceae	Shrub
100	<i>Garcinia cambogia</i>	Fabaceae	Tree
101	<i>Gardenia jasminoides</i>	Rubiaceae	Shrub
102	<i>Gmelina arborea</i>	Lamiaceae	Tree
103	<i>Gomphrena globosa</i>	Amaranthaceae	Herb
104	<i>Grevillea robusta</i>	Proteaceae	Tree
105	<i>Grewia nervosa</i>	Malvaceae	Shrub
106	<i>Gymnema sylvestre</i>	Apocynaceae	Climber
107	<i>Hedyotis brachypoda</i>	Rubiaceae	Herb
108	<i>Hemidesmus indicus</i>	Apocynaceae	Shrub
109	<i>Hemigraphis alternata</i>	Acanthaceae	Herb
110	<i>Hemigraphis colorata</i>	Acanthaceae	Herb
111	<i>Heteropogon contortus</i>	Poaceae	Herb

112	<i>Hibiscus rosasinensis</i>	Malvaceae	Shrub
113	<i>Holigarna arnottiana</i>	Anacardiaceae	Tree
114	<i>Hybanthus enneaspermus</i>	Violaceae	Herb
115	<i>Hyptis suaveolens</i>	Lamiaceae	Herb
116	<i>Ipomea maxima</i>	Convolvulaceae	Creeper
117	<i>Ipomea</i> sps.	Convolvulaceae	Climber
118	<i>Ipomoea hederifolia</i>	Convolvulaceae	Climber
119	<i>Ischaemum ciliare</i>	Poaceae	Herb
120	<i>Ixora coccinea</i>	Rubiaceae	Shrub
121	<i>Jasminum sambac</i>	Oleaceae	Shrub
122	<i>Kaemferia galanga</i>	Zingiberaceae	Herb
123	<i>Kyllinga nemoralis</i>	Cyperaceae	Creeper
124	<i>Lanea coromandelica</i>	Anacardiaceae	Tree
125	<i>Lantana camara</i>	Verbenaceae	Shrub
126	<i>Laportea interrupta</i>	Urticaceae	Herb
127	<i>Leucas aspera</i>	Lamiaceae	Herb
128	<i>Leucas linifolia</i>	Lamiaceae	Herb
129	<i>Lindernia ciliata</i>	Linderniaceae	Herb
130	<i>Lygodium flexuosum</i>	Lygodiaceae	Climbing fern
131	<i>Macaranga peltate</i>	Euphorbiaceae	Tree
132	<i>Magnolia champaca</i>	Magnolaceae	Tree
133	<i>Mangifera indica</i>	Anacardiaceae	Tree
134	<i>Manikara zapota</i>	Sapotaceae	Tree
135	<i>Maranta arundinaceae</i>	Marantaceae	Herb
136	<i>Memecylon umbellatum</i>	Melastomataceae	Tree
137	<i>Merremia tridentata</i>	Convolvulaceae	Climber
138	<i>Microstachys chamaelea</i>	Euphorbiaceae	Herb
139	<i>Mikania micrantha</i>	Asteraceae	Climber
140	<i>Mimosa pudica</i>	Mimosaceae	Herb
141	<i>Mimusops elengi</i>	Sapotaceae	Tree
142	<i>Mitracarpus verticillatus</i>	Rubiaceae	Herb
143	<i>Mukia madraspatana</i>	Cucurbitaceae	Climber

144	<i>Murraya koenigii</i>	Rutaceae	Tree
145	<i>Ocimum basilicum</i>	Lamiaceae	Herb
146	<i>Ocimum sanctum</i>	Lamiaceae	Shrub
147	<i>Oplismenus burmannii</i>	Poaceae	Herb
148	<i>Oxalis corniculata</i>	Oxalidaceae	Creeper
149	<i>Panicum paludosum</i>	Poaceae	Herb
150	<i>Passiflora edulis</i>	Passifloraceae	Climber
151	<i>Passiflora foetida</i>	Passifloraceae	Climber
152	<i>Peltophorum pterocarpum</i>	Caesalpinaceae	Tree
153	<i>Pennisetum hohenackeri</i>	Poaceae	Herb
154	<i>Pentas lanceolata</i>	Rubiaceae	Shrub
155	<i>Phyllanthus amarus</i>	Euphorbiaceae	Herb
156	<i>Phyllanthus emblica</i>	Euphorbiaceae	Herb
157	<i>Phyllanthus virgatus</i>	Euphorbiaceae	Herb
158	<i>Physalis minima</i>	Solanaceae	Herb
159	<i>Pilea microphylla</i>	Urticaceae	Herb
160	<i>Piper longum</i>	Piperaceae	Herb
161	<i>Plumbago zeylanica</i>	Plumbaginaceae	Herb
162	<i>Plumeria pudica</i>	Apocynaceae	Shrub
163	<i>Pongamia pinnata</i>	Fabaceae	Tree
164	<i>Portulaca oleracea</i>	Portulacaceae	Herb
165	<i>Pothos scandens</i>	Araceae	Climbing shrub
166	<i>Psidium guajava</i>	Myrtaceae	Tree
167	<i>Pterocarpus santalinus</i>	Fabaceae	Tree
168	<i>Ricinus communis</i>	Euphorbiaceae	Shrub
169	<i>Rosa indica</i>	Rosaceae	Shrub
170	<i>Rungia pectinate</i>	Acanthaceae	Herb
171	<i>Samanea saman</i>	Papilionaceae	Tree
172	<i>Scoparia dulcis</i>	Plantaginaceae (Scrophulariaceae)	Herb
173	<i>Selaginella haematodes</i>	Selaginellaceae	Herb
174	<i>Sesamum indicum subsp. Malabaricum</i>	Pedaliaceae	Herb

175	<i>Sida acuta</i>	Malvaceae	Shrub
176	<i>Sida cordifolia</i>	Malvaceae	Shrub
177	<i>Sida retusa</i>	Malvaceae	Herb
178	<i>Simarouba glauca</i>	Simaroubaceae	Tree
179	<i>Spermacoce articularis</i>	Rubiaceae	Herb
180	<i>Spermacoce ocymoides</i>	Rubiaceae	Herb
181	<i>Spilanthes acmella</i>	Asteraceae	Herb
182	<i>Sterculia foetida</i>	Malvaceae	Tree
183	<i>Stereospermum tetragonium</i>	Bignoniaceae	Tree
184	<i>Swietenia mahagoni</i>	Meliaceae	Tree
185	<i>Synedrella nodiflora</i>	Asteraceae	Herb
186	<i>Syzygium aqueum</i>	Myrtaceae	Tree
187	<i>Syzygium cumini</i>	Myrtaceae	Tree
188	<i>Syzygium jambos</i>	Myrtaceae	Tree
189	<i>Tabernaemontana alternifolia</i>	Apocynaceae	Shrub
190	<i>Tabernaemontana divaricata</i>	Apocynaceae	Shrub
191	<i>Tamarindus indica</i>	Caesalpinaceae	Tree
192	<i>Tectona grandis</i>	Lamiaceae	Tree
193	<i>Terminalia bellerica</i>	Combretaceae (Cannabaceae)	Tree
194	<i>Terminalia sp</i>	Combretaceae	Tree
195	<i>Thespesia populnea</i>	Malvaceae	Shrub
196	<i>Thunbergia grandiflora</i>	Acanthaceae	Climber
197	<i>Tinospora cordifolia</i>	Menispermaceae	Climber
198	<i>Tragia involuerata</i>	Euphorbiaceae	Herb
199	<i>Trema orientalis</i>	Combretaceae	Tree
200	<i>Tridax procumbens</i>	Asteraceae	Herb
201	<i>Triumfetta annua</i>	Malvaceae	Shrub
202	<i>Triumfetta rhomboidei</i>	Malvaceae	Shrub
203	<i>Turnera subulate</i>	Passifloraceae	Herb
204	<i>Urena lobata</i>	Malvaceae	Shrub
205	<i>Vanda species</i>	orchidaceae	Epiphyte
206	<i>Vanilla fragrens</i>	orchidaceae	Climber

207	<i>Vernonia cinerea</i>	Asteraceae	Herb
208	<i>Vitex negundo</i>	Verbenaceae	Shrub
209	<i>Wattakaka volubilis</i>	Asclepiadaceae	Climber
210	<i>Zanthoxyl emhetsa</i>	Rutaceae	Tree
211	<i>Ziziphus mauritiana</i>	Rhamnaceae	Tree
212	<i>Ziziphus oenopolia</i>	Rhamnaceae	Shrub
213	<i>Cocos nucifera</i>	Arecaceae	Tree

III.2. ii. Faunal diversity

Table 2. Faunal diversity of Sree Narayana College, Kannur

Sl. No.	BIRDS:
1	Lesser Whistling-Duck
2	Indian Peafowl
3	Rock Pigeon
4	Spotted Dove
5	Greater Coucal
6	Asian Koel
7	Gray-headed Swamphen
8	White-breasted Waterhen
9	Pheasant-tailed Jacana
10	Bronze-winged Jacana
11	Wood Sandpiper
12	Asian Woolly-necked Stork
13	Indian Pond-Heron
14	Eastern Cattle Egret
15	Great Egret
16	Medium Egret
17	Gray Heron
18	Purple Heron
19	Glossy Ibis
20	Black-headed Ibis
21	Crested Goshawk
22	Shikra
23	Black Kite
24	Brahminy Kite
25	Spotted Owlet
26	White-throated Kingfisher
27	Asian Green Bee-eater
28	Blue-tailed Bee-eater
29	White-cheeked Barbet
30	Black-rumped Flame back
31	Rose-ringed Parakeet
32	Indian Golden Oriole

33	Ashy Drongo
34	Greater Racket-tailed Drongo
35	Indian Paradise-Flycatcher
36	Rufous Treepie
37	House Crow
38	Large-billed Crow
39	Common Tailorbird
40	Gray-breasted Prinia
Sl.No.	ANTS
1	<i>Solenopsis germinate</i>
2	<i>Pheidole species</i>
3	<i>Myrmicaria species</i>
4	<i>Camponotus species</i>
5	<i>Tapinoma melanocephalum</i>
6	<i>Paratrechina longicornis</i>
7	<i>Oecophylla smargadina</i>
8	<i>Polyrhachis dives</i>
9	<i>Crematogaster species</i>
10	<i>Odontomachus species</i>
11	<i>Anoplolepis gracillipes</i>
12	<i>Formica fusca</i>
13	<i>Lepisiota species</i>
Sl. No.	SPIDERS
1	<i>Hippasa angelenoides</i>
2	<i>Lyssomanes viridis</i>
3	<i>Pholcus phalangioides</i>
4	<i>Plexippus ptersi</i>
5	<i>Telamonia dimidiata</i>
Sl. No.	BUTTERFLIES:
1	<i>Acraea terpsicore</i>
2	<i>Zizula hylax</i>
3	<i>Spialia galba</i>
4	<i>Euploea core</i>
5	<i>Tirumal limniace</i>
6	<i>Chilades pandava</i> (Horsfield)
7	<i>Eurema hecabe</i>
8	<i>Leptosia nina</i>



Fig 7. Garden View of the Campus



ENERGY AUDIT

Chapter IV

ENERGY AUDIT

IV.1. Energy usage in Sree Narayana College, Kannur

The following pattern of energy usage is noticed in the college during energy audit.

Sl. No	Campus	Average Monthly Electricity charge (Rs)	Average Monthly gas refilling charge (Rs)	Average Monthly generator fuel charge (Rs)
1.	Sree Narayana College, Kannur	24420	2900	2500

IV.2. Checklist of electrical and electronic equipment

NO	LOCATION	NAME OF EQUIPMENT	WATTAGE (W)	POWER RATING STAR	AVERAGE USE PER WEEK	AVERAGE DAYS OF USE /WEEK
1	CHEMISTRY DEPARTMENT	HOT AIR OVEN	1000	-	4 hr	6
		MICROWAVE OVEN	1150	-	4 hr	3
		FRIDGE	63	5	168 hr	7
		DISTILLATION UNIT	4000	-	4 hr	5
		MAGNETIC STIRRER (3 nos.)	1000	-	4 hr	4
2	PHYSICS DEPARTMENT	ELECTROMAGNET (3 nos.)	300	-	4 hr	3
		SOURCE OF SOLAR CELL APPARATUS	100	-	4 hr	3
		E/M APPARATUS	250	-	1hr	3
		HEATING ELEMENT IN FOUR PROBE APPARATUS	300	-	3 hr	3
3	BOTANY DEPARTMENT	WATER BATH	1000	-	4 hr	6
		HOT AIR OVEN	1000	-	0 hr	0
		CENTRIFUGE	100	-	0 hr	0
		AUTOCLAVE	1500	-	0 hr	0
		SINGLE DISTILLATION UNIT	800	-	0 hr	0
4	ZOOLOGY DEPARTMENT	WATER BATH	2000	-	4 hr	3
		HOT AIR OVEN	1000	-	3 hr	5
		SINGLE DISTILLATION UNIT	4000	-	4 hr	5
		FRIDGE	63	5	162 hr	7

		CENTRIFUGE	300	-	6 hr	3
		ELECTRONIC BALANCE	330	-	5 hr	3
5	MICROBIOLOGY DEPARTMENT	SPECTROPHOTOMETER	90	-	4 hr	4
		WATER BATH	1000	-	4 hr	3
		LAMINAR AIRFLOW	76	-	4 hr	
		HOT AIR OVEN	2000	-	4 hr	5
		INCUBATOR	100	-	4 hr	
		CENTRIFUGE	1500	-	4 hr	4
		6	OTHERS	PROJECTOR	900	-
			300	-	5 hr	3
			20	-	3 hr	6

Indoor and outdoor energy consumption:

Location No.	Type ¹	Use ²	Construction type ³	Windows & doors ⁴ /skylight ⁵ /wall windows ⁶		No. of light points ⁷	No. of fan points ⁸	Average Hours of use /week ⁹
				Windows	Door			
MAIN BLOCK / ZOOLOGY BLOCK								
1	Classroom	Lecture	Concrete	77	37	77	52	35 hr
2	Corridor	Walking	Concrete	-	-	-	-	2.5 hr
3	Toilet	Washroom	Concrete	-	-	4		2.5 hr
4	Office	Office Work	Concrete	25	10	37	20	40 hr
5	Lab	Lab Work	Concrete	23	11	36	25	40 hr
6	Others	-	Concrete	11	2	22	10	5 hr
B.COM BLOCK								
7	Classroom	Lecture	Tile Roof	22	9	11	20	35 hr
8	Corridor	Walking	Tile Roof	-	-	-	-	2.5 hr
9	Toilet	Washroom	Concrete	8	7	5	-	2.5 hr
10	Office	Office Work	Tile Roof	3	5	7	7	40 hr
11	Fitness Centre	Workout	Tile Roof	4	2	5	-	3 hr
12	Library	Reading and Reference	Concrete	3	2	4	1	40 hr
MALAYALAM BLOCK								
13	Classroom	Lecture	Concrete	45	13	17	33	35 hr
14	Corridor	Walking	Concrete	-	-	2		2.5 hr
15	Toilet	Washroom	Concrete	7	3	8	2	2.5 hr
16	Office	Office Work	Concrete	10	6	9	7	40 hr
17	Gym	Workout	Concrete	1	2	6	2	3 hr
18	Lab	Lab Work	Concrete	1	8	7	1	40 hr

HISTORY & LANGUAGE BLOCK								
19	Classroom	Lecture	Concrete&Tile Roof	74	26	28	31	35 hr
20	Corridor	Walking	Concrete &Tile Roof	-	-	-	-	2.5 hr
21	Toilet	Washroom	Concrete	-	-	-	-	2.5 hr
22	Office	Office Work	Concrete	3	1	2	1	40 hr
CHEMISTRY & PHYSICS BLOCK								
23	Classroom	Lecture	Concrete	7	9	16	12	35 hr
24	Corridor	Walking	Concrete	-	-	-	-	2.5 hr
25	Toilet	Washroom	Concrete	-	-	2	-	2.5 hr
26	Office	Office Work	Concrete	15	10	14	9	40 hr
27	Lab	Lab Work	Concrete	53	15	58	21	40 hr
STORE BLOCK								
28	Student Co- Operative Store	Purchase of Stationary Items	Concrete	2	2	4	2	30 hr
LIBRARY BLOCK								
29	College Library	Reading and reference	Concrete	28	9	29	28	40 hr
NSS & NCC BLOCK								
30	Auditorium	Conduct programs	Concrete	12	6	30	17	4 hr
31	NSS and NCC Rooms	Storage of respective accessories	Concrete	2	2	2	2	20 hr
CANTEEN BLOCK								
32	Canteen	Kitchen and food serving purpose	Concrete	5	3	11	7	35 hr
HOSTEL BLOCK								
33	Womens Hostel	Accommodation	Concrete	60	22	62	60	40 hr

IV.3. Existing energy sources of the College

- Solar energy is making use for outdoor lights
- Biogas plant is installed in the campus
- Electricity from Kerala State Electricity Board (KSEB) is the major source of energy

IV.4. Electric Appliance Audit:

The average energy utilization of Sree Narayana College, Kannur for different purposes is 90.489 kwh/month.

Average Electricity charge of the campus is Rs. 24420/-month. Average Gas refilling charge of the campus is Rs. 2900/-month. Average Generator fuel charge of the campus is Rs. 2500/-month. A hybrid source of energy comprising solar and wind type of non-conventional category of energy will be a good alternative energy sources for the college

Awareness programs for the stakeholders to save energy may also increase sustainability in the utilization of various energy sources. Although staffs are encouraged to switch off their own lights, monitors and other equipment, the college administrative staff should carry out a lock down of the building at the end of every day and switch off any lights or equipment that have been left on. All the incandescent bulbs have to be replaced by low energy bulbs. Lighting in some areas such as the toilets should be controlled by PIR (passive infrared light) sensors. Lighting in the library should be predominantly LEDs and energy saving bulbs. The college should improve its monitoring and reporting of energy usage and provide information to campus users. The awareness boards for energy savings have to be installed in the college campuses.

The sun provides more energy than we'll ever need, electricity from solar power is a very important energy source in the move to clean energy production and hence the important source of alternative energy for the college is solar power. No greenhouse gas emissions are released into the atmosphere while using solar panels to create electricity. Proper wiring of buildings has to be ensured and older wiring, if necessary, has to be replaced. The damaged wiring may be replaced to avoid electricity leakage and to protect the College and its appliances from potentially dangerous or expensive damage that may arise due to faulty wiring.

IV.5. Existing energy management methods in the College campus

- Energy saving campaigns are organised by different departments
- Established solar powered lights at Campus entrance and nearby library.
- Older and damaged equipment's found to be replaced if necessary.
- Wiring and electrical maintains are periodically monitored and replacements are made.



Fig 8. Data Collection by Audit Team during the Energy Audit



Chapter V
WATER AND WASTE AUDIT

V.1. Water usage in Sree Narayana College, Kannur

The following is water usage pattern noticed in the college during water audit.

Water usage:

Sl.	Purpose	Quantity
1	No of bore well	1
2	No of faucet	6
3	No of toilet	119
4	No of toilet flush	6
5	No of water taps including washbasin taps	320
6	No of wells	1
7	Water cooler	4

V.2. WATER AUDIT

Sl. No .	Tap name*/ Tap no.	Type of the tap (plastic/ brass etc.)	Condition (poor/moderate/ good)	Avg. number of people using per day	Avg. time per head per day	Avg. amount of water releasing per minute	Leaking or not	If leaking average amount of water loss per minute
1	Kitchen taps <u>12</u>	Plastic/ steel	Moderate	650	1 hours	1	No	Nil
2	Wash basins tap <u>201</u>	Plastic /steel	Moderate	770	1.5 hours	1	Yes	-
3	Toilet tap <u>119</u>	Plastic /Steel	Moderate	700	2 hours	2	No	Nil
4	Toilet flush <u>6</u>	Plastic	Moderate	700	2.5 hours	3	No	Nil
5	Shower <u>0</u>	-	-	-	-	-	-	-
6	Health faucet <u>6</u>	Plastic	Moderate	600	30 minutes	0.5	No	Nil
7	Others <u>4</u>	Steel	Moderate	8	3 hours	3	No	Nil

Water audit at Sree Narayana College, Kannur

The water audit was done during the March month where the usage of water is at the peak. The College campus uses 7930 litres of water every day. The main source of water is ground water. Water from the public water supply is also utilized. Approximately 21 litres of water are lost through the leaking of pipes per day. Proper passage of water through the pipes has to be ensured. Leakage has to be prevented and various other sources of water need to be found out as well within the campus to meet the future demand. Drip irrigation should be practiced in gardens. If water treatment system is installed at canteen and chemical laboratories, the amount of water lost through pollution can be prevented.

Preference should be given to the recycling of water in the College to maintain an Efficient Water Management system. Awareness programmes for the management of sustainable water use will be highly efficient on this campus. Efficient water saving devices should be installed in all toilets. New toilets that are to be installed should have a dual flush

system in place with sensor technology. Water management systems are to be introduced in the urinals. Consider carrying out meter readings on a regular basis in order to monitor water usage. Not only will this make checking water bills much easier but it will also allow a baseline to be set from which further reductions can be measured, as well as possibly altering the any leaks.

V.3. Existing water management methods adopted in the campuses

- Rainwater collection pits are dug in order to recharge groundwater.
- Rainwater harvesting system is functioning.
- Started to add more greenery in order to improve ground water resources.
- Water conservation and green awareness campaigns have been conducted on behalf of National Service Scheme (NSS).
- Awareness programme had been organized to save water.

V.4. Waste measure and its disposal

In connection with the Environment audit total solid waste generated per day from the various sources of the college was measured. The details are given below

- Total stakeholders : 2668
- Classroom : 49
- Other Rooms : 31
- Number of hostel inmates : 68
- Number of Garbage Dumps : 11
- Number of toilets : 17
- E wastes (computers, electrical and electronic parts)- by selling: 10.5Kg/Month
- Plastic waste – Burning, dumping pit – Nil :7.3 Kg/Month
- Solid wastes (damaged furniture, paper & paper plates, food waste): 36.5Kg/Month
- Chemical waste (laboratory): 3.5Kg/ Month
- Waste water- Washing, urinals, bathrooms: 2450 L
- Glass waste (broken glass wares from the lab): 1.5 kg/Month
- Waste treatment: 105 Kg/Month
- Napkin incinerator : 1

Quantity of waste generated in the campus

- Biodegradable – 38 kg/month
- Non-biodegradable – 19.55 kg/month
- Hazardous waste – Nil
- Canteen waste (biodegradable) – 32kg/day
- Canteen waste (non-biodegradable) – 1.5 kg/day
- Recyclable – 7 kg/month

Proper waste disposal measures have to be adopted in the college. A composting pit is highly essential for the treatment of biodegradable waste generated from the canteen, hostels, food leftover by students and staff, office, vegetable garden and from the College campus cleaning process. Different methods such as pit composting, vermi-composting, bacterial composting using bacterial consortium may be used to treat the biodegradable waste. E-waste, plastic and glass bottles, other plastic wastes, cans, broken glass wares, tins etc., may be recycled or sold out.

Properly label all waste containers, close the waste containers to minimise exposure to atmosphere, and contact the collaborating waste disposal agency for a pick up.

Laboratories should be asked to maintain the purchase of smallest quantities of chemicals for particular purposes and share surplus chemicals with other laboratories. Laboratories shall be asked to perform minimum scale experiments and keep software assisted chemical storage data to avoid duplicate purchases.

Hazardous waste Satellite accumulation areas can be maintained under strict and proper guidelines. The guidelines should address the requirements of the satellite storage area, properties of storage containers, storage limit and storage period before pick up. Proper labeling of the storage containers can be done which will ease the disposal process.

Individual safety of the students and staff working in the laboratories should be ensured along with the waste management guidelines. The College can provide the safety wears to all in the laboratory and wearing them should be made mandatory. Safety alarms can be installed in all laboratories and students can be given training to use fire extinguishers in emergency situations of fire and explosion. Fire extinguishing cylinders should be installed in all laboratory areas. In addition, eye bath facility and open area showers can be introduced in front

of all chemical laboratories. First aid boxes should be installed in all departments to help students who can possibly be injured while performing an experiment.

Eventhough the college is managing waste material in a properway; the College has missed a few major recycling opportunities, with the exception of food waste from the dining halls. Installation of more sanitary napkin destroyers at ladies' hostels, waiting room and enhance the capacity of existing incinerator in girl's hostels and campus. Different coloured bins may be placed in order to collect and segregate various types of waste. Training and campaigns in cotton bag making for students and staff will reduce the use of throw away plastic carry bags. Periodical training in health & hygiene, waste management and disposal, green healthy practices may inculcate a positive attitude for a clean and healthy living.

There should be proper sign boards display to tell students where to go for the disposal of other recyclables, plastics and hazardous waste. There should be in place a policy for the handling and disposal of hazardous materials. The College should have plans for dealing with hazardous waste in academic departments as well as the maintenance activities. The College should ensure that the hazardous materials are disposing in a proper way. The chemistry department may change their chemical waste disposal to eco-friendly method. Green chemistry is the utilisation of a set of principles that reduces or eliminates the use or generation of hazardous substances in the design, manufacture and application of chemical products.

College is committed to manage chemical wastes produced in its practical in a safe and environmentally sound manner that complies with all applicable central and state government regulations. At present, the College does not have a proper waste management system and a little wasteis reaching the environment (air and water). Since the College has a strong commitment to protect the environment and to be abide by the regulations of the government, in next five years can plan to introduce “Chemical’s Waste Management Guidelines”.

The College should develop and implement proper management practices in the handling, storage, and disposal of chemical wastes that are generated in its laboratories. The handling and storage will be the areas where College can take adequate steps in the campus itself while disposal can be done in cooperation with a suitable outside agency.

The handling and storage shouldl be strictly according to the “Chemicals Waste Management Guidelines”.

As part of the guidelines, hazardous waste determination will be carried out for the waste from all laboratories and it will be stored in separate appropriate containers. As part of the hazardous waste management, the laboratories will take essential steps to minimise the quantity of waste, set up a satellite accumulation area.

V.5. Existing waste management methods practised

- Cleaning the campuses on daily basis
- Installed Biogas plant for biodegradable waste disposal
- Installed Incinerators for sanitary napkin disposal
- Installed Plastic bottle collection (bottle booth)
- Open dumping of biodegradable waste
- Strictly banned use of paper cup and paper plate in the campus and promoted use of steel cup and steel plate.

Chapter VI

CONSOLIDATED STATEMENT OF AUDIT FINDINGS

VI.1. Audit findings:

Environment Audit (Green Audit) will create a greater appreciation and understanding of the impact of the College's actions on the environment. An overall finding of the onsite audit is that Sree Narayana College is conscious about their Environment health. College has successfully been able to identify the impacts on the environment through the various auditing exercises. The green auditing exercise has brainstormed and provides insights on practical ways to reduce negative impact on the environment. Participating in this green auditing procedure has gained knowledge about the need of sustainability of the College campus. It will create awareness around the use of the Earth's resources in your home, College, local community and beyond. College should adopt an Environmentally Responsible Purchasing Policy, and work towards creating and implementing a strategy to reduce the environmental impact of its purchasing decisions. White good producing companies are rapidly developing in the area of energy efficiency. Many computer hardware and electrical supply companies now cooperate with customers to reclaim old or damaged parts. Although over twice as expensive up front, LCD monitors are estimated to use 30-40% less energy overall than CRTs. All computers purchased by the College have an Energy Star rating, which is beginning to be a standard requirement for computers.

VI.2. Preparation of action plan

Administrators' policies referring to College and approach towards the use of resources need to be considered in purview of green audit report. An environmental policy should be formulated by the Administrator of the College. The College should have a policy on green awareness raising or training programmes for students and staff, green awareness policy right from kitchen staff to procurement policy by the Syndicate. Based on the policies, College should have an action plan. The green audit report will be a base line for the action plan to be evolved.

VI.3. Follow up action and plans

Green Audits are exercises which generate considerable quantities of valuable environmental and resource management information. The time and effort and cost involved in this exercise is often considerable and in order to be able to justify this expenditure, it is

important to ensure that the findings and recommendations of the audit are considered at the correct level within the organisation and action plans and implementation programmes based on the audit findings. Audit follow up is part of the wider process of continuous improvement. Without follow-up, the audit becomes an isolated event which soon becomes forgotten in the pressures of organisational priorities and the passing of time.

VI.4. Environmental Education:

The following environmental education programmes may be implemented in the College campus before the next green auditing: -

Training programmes in solid waste management, liquid waste management, setting up of biodiversity garden, tree management, medicinal plant nursery, butterfly garden, vegetable cultivation, water management, energy management, landscape management, pollution mitigation methods, and water filtration methods.

- Display of environmental awareness board such as – Save water, save electricity, no wastage of food/water, no smoking, switch off light and fan after use, plastic free campus etc.,
- Give priority to environmental clubs and its programmes
- Set up model rainwater harvesting system, vegetable garden, medicinal plant garden, butterfly garden etc,
- Conduct exhibition on throw away plastic danger, recyclable products etc
- Display various slogans and pictures to protect environment
- Implement chemical treatment system for wastewater from the laboratories and incinerators,
- Different coloured waste bins have to be placed to segregate waste and its easy collection.

Chapter VII

CONCLUSION AND RECOMMENDATIONS

Environment audit is the most efficient way to identify the strength and weakness of environmentally sustainable practices and to find a way to solve problem. Green Audit is one kind of professional approach towards a responsible way in utilising economic, financial, social and environmental resources. 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). There is scope for further improvement, particularly in relation to waste, energy and water management. The College in recent years considers the environmental impacts of most of its actions and makes a concerted effort to act in an environmentally responsible manner. Even though the College does perform fairly well, the recommendations in this report highlight many ways in which the College can work to improve its actions and become a more sustainable institution.

VII.1. Suggestions

Some of the very important suggestions are: -

- i. Adopt the proposed Environmentally Responsible Purchasing Policy, and work towards creating and implementing a strategy to reduce the environmental impact of its purchasing decisions.
- ii. Collaborate for Interdisciplinary Approaches- Convene college faculty and administrators with environmental practitioners to develop interdisciplinary approaches to curricula, research initiatives, operations, and outreach activities that support an environmentally sustainable future.
- iii. Educate for Environmentally Responsible Citizenship- Establish programs to produce expertise in environmental management, sustainable economic development, population, and related fields to ensure that all university graduates are environmentally literate and have the awareness and understanding to be ecologically responsible citizens.
- iv. Increase Awareness of Environmentally Sustainable Development- Use every opportunity to raise public, government, industry, foundation, and college

awareness by openly addressing the urgent need to move toward an environmentally sustainable future.

- v. Increase education on reduce, reuse, and recycling of resources and waste products in the campus.
- vi. Increase recycling education on campus.
- vii. Involve All Stakeholders- Encourage involvement of government, foundations, and industry in supporting interdisciplinary research, education, policy formation, and information exchange in environmentally sustainable development. Expand work with community and nongovernmental organizations to assist in finding solutions to environmental problems.
- viii. Practice Institutional Ecology- Set an example of environmental responsibility by establishing institutional ecology policies and practices of resource conservation, recycling, waste reduction, and environmentally sound operations.

VII.2. Recommendations

- Adopt an environment policy for the College.
- Appoint a green protocol officer at college level.
- Arrange training programmes on environmental management system and nature conservation.
- Avoid plastic/thermocool plates and cups in the College level or department level functions.
- Conduct carbon neutral project at campus level.
- Conduct exhibitions for parents and public on environment and sustainable practices.
- Conduct seminars, workshops and exhibitions on environmental education.
- Declare the campus plastic free and implement it thoroughly.
- Develop butterfly gardens that arouse appreciation towards flora and fauna diversity.

- Dig sufficient rain water pits in the college campus wherever possible and maintain it regularly.
- Display boards of fauna diversity to generate enthusiasm for learners.
- Ensure participation of students and teachers in local environmental issues.
- Establish a purchase policy that is energy saving and eco-friendly.
- Establish an E-waste collection centre in campus.
- Establish water, energy and waste management systems.
- Grow up vegetable garden and medicinal garden and gradually develop it as a nursery.
- Install Biogas plant and Compost units
- Install Incinerators to dispose sanitary napkins
- Install rain water harvesting system in all roof top and ground.
- Install Solar panels wind energy harvesting system to generate electricity
- Install waste water system for chemistry labs.
- Introduce add-on courses eco-friendly income generating to all interested students.
- Layout 'Green Chemistry' that reduces or eliminates the use or generation of hazardous substances in the design, manufacture and application of chemical products.
- Name all the trees and plants with its common name and scientific name.
- Organize earn while learn eco-friendly programmes
- Renovation of cooking system in the canteen to save gas.
- Replace incandescent and CFL lamps with LED lights.
- Replace LCD computer monitors with LED monitors.
- Set up water recycling unit where the recycled water can be used for gardening in College and hostels.

- Sound level should be minimized by awareness and through the prohibition of horn by the vehicles within the University premises.

VII.3. Commitments after Green Auditing:

In the light of Environment audit or green audit, the College should, adopt some additions in the vision and mission statements promoting compliance with environmental laws and regulations for sustainable existence of the College.

VII.4. Vision Statement

Sree Narayana College is committed to becoming an innovative leader among academic institutions in the areas of environmental education and research and in the practice of environmental management and stewardship.

The College is obliged to the principle of sustainable development, and will use its resources in a manner that does not compromise the ability of future generations of the College and global communities to meet their needs.

VII.5. Mission Statement

Sree Narayana College is devoted to promote the environment management and conservation in the College campus and community with the purpose to identify, quantify, describe and prioritize framework of environment sustainability in compliance with the applicable regulations, policies and standards.

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Dr. Manoj K

Coordinator
Consultancy Division
Department of Environmental Studies
Kannur University



Fig 9. Awareness Class of Environmental Audit



Fig 10. Audit Team



Fig. 11. NSS Volunteers of Sree Narayana College, Kannur involved in assisting the Audit team

SREE NARAYANA COLLEGE, KANNUR

PRE-AUDIT QUESTIONNAIRE - ENVIRONMENT AUDIT

Guidelines

The purpose of this questionnaire is to gather the necessary information on the audit site prior to undertaking an on-site audit. The questionnaire covers each area of environmental concern and is supplemented by information checklists for each of these areas. This questionnaire is designed to familiarize the environmental audit team with the site operations prior to the audit visit, while information checklists highlight a list of the documents required prior to the audit.

Please complete the forms as thoroughly and accurately as possible. Where a question does not apply or cannot be answered, please respond with not applicable or unknown. Respondents are encouraged to provide responses which reflect the actual conditions as opposed to the 'ideal' situation. Provision of pertinent information prior to the audit visit will allow the audit team to be adequately prepared resulting in a more effective audit.

Note: Unless otherwise specified, references made to 'premises' or 'area' in this questionnaire generally refer to premises which the respondent represents

SL NO	FORMS	DESCRIPTION	LINK
1.	Form-1	General Departmental Information (Building)	https://forms.gle/sj7Aj6Aeo5h3zpgM6
2.	Form-2	Overall Environmental Management Information (Departmental Level)	https://forms.gle/BwtNpaz1fgZN34qWA
3.	Form-3	Materials Procurement Policy (Departmental Level)	https://forms.gle/TCWHrFcmiZwGUzRJ7
4.	Form-4	Energy Management	https://forms.gle/DTzRVjVqcVWCrxnz9
5.	Form-5	Material Management (Office Operation)	https://forms.gle/ivztweAWpZxwiV2UA

6.	Form-6	Material Management (Laboratory Operation)	https://forms.gle/DLXBB3f86phTxUKV6
7.	Form-7	Material Management (Pesticide)	https://forms.gle/XiysYuHMnuViZ1Np9
8.	Form-8	Material Management (Asbestos)	https://forms.gle/fhFg5ZNHVAkgrWuY6
9	Form-9	Water Supply Management	https://forms.gle/HQq3wkaXFgdwttuu5
10	Form-10	Wastewater Management	https://forms.gle/1ipKP8TEPUBFVEBN9
11	Form-11	Solid Waste Management	https://forms.gle/p1t85D2KXjncpTga7
12	Form-12	Air Quality Monitoring and Control (General)	https://forms.gle/AUWRHh7D93RfDoU77
13	Form-13	Air Quality Monitoring and Control (Laboratory Operation)	https://forms.gle/LLEcZiuRqVBrDicv7
14	Form-14	Noise Monitoring and Control	https://forms.gle/6R8ZTrhM2TKrL4Ux9
15	Form-15	Transportation and Travel	https://forms.gle/D6PEt1WbUxc1DPT49
16	Form-16	Emergency Response Procedures	https://forms.gle/Uiv8mjBhYfgnktTQ6
17	Form-17	Staff Awareness and Training	https://forms.gle/o44PQ1LyPnifGEgT8
18	Form-18	Publicity of Environmental Information	https://forms.gle/Yk45V3agAJ6gWDgc9
19	Form-19	Response to Public Enquiries and Complaints	https://forms.gle/ZyYpE7JrtKGX6ruP8



Love nature.....Save future



SREE NARAYANA COLLEGE KANNUR

ACCREDITED BY NAAC WITH 'A' GRADE (AFFILIATED TO KANNUR UNIVERSITY)
Sree Narayana College Kannur, P.O. Thottada, Kannur, Kerala, India - 670 007

✉ sncollegekannur@gmail.com ☎ 0497 - 2731085

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7.1.3

Certificates and Awards

URJAKIRAN



Energy Management Centre - Kerala

URJA KIRAN

ENERGY CONSERVATION AWARENESS CAMPAIGN



EXCELLENCE
AWARDS 2019

presented to

*Department of Botany
Sree Narayana College, Kannur*

*in consideration for the outstanding performance in
organizing Urja Kiran programs during
2016 to 2019*

K. M. Dharesan Unnithan
Director



CENTRE FOR ENVIRONMENT AND DEVELOPMENT

(Recognized by Department of Scientific and Industrial Research, Government of India)

Thozhuvancode, Vattiyoorkavu P.O, Thiruvananthapuram – 695013, Phone: 0471 2369720, 2369721, 2369722, Fax: +91 -471-2369720 E-mail: director@cedindia.org. URL: www.cedindia.org

Dr. Babu Ambat
Executive Director

CED/2387/ UK /2019-20

01 September, 2021

To

The Principal,
Sree Narayana College
Thottada P.O, Kannur 670 007

Sir/Madam,

Sub: Communication regarding Selection of agencies for District Level Excellence Award Project – reg-

Ref: EMC/283/2021-ET-C(ESS) dated 06-07-2021

We are happy to inform you that vide reference cited above; EMC is continuing the program for encouraging the district level good performing Participating Agencies (PAs) in URJA KIRAN – Energy Conservation Awareness Program. A special component project for ***Empowering Women Entrepreneurs in Energy Conservation*** will be sanctioned two top performing organizations in each district.

In consideration for the outstanding performance in organizing URJA KIRAN (Energy Conservation Awareness Campaign) program during the period from **2017-18 to 2019-20**, the **Department of Botany** of your institution is selected for the award project in **Kannur District**.

An amount of Rs. 20,000/- will be sanctioned for conducting the special component project during 2021-22. A detailed guideline of the project is attached herewith..You are requested to submit the willingness to conduct the program at the earliest.

Thanking you,

Yours faithfully,

(BABU AMBAT)





SREE NARAYANA COLLEGE KANNUR

ACCREDITED BY NAAC WITH 'A' GRADE (AFFILIATED TO KANNUR UNIVERSITY)

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7.1.3: Report on Environmental Promotional activities conducted beyond the campus with geo tagged photographs with caption and date



7.1.3: Report on Environmental Promotional activities conducted beyond the campus with geo tagged photographs with caption and date

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**PAVITHRA SAGARAM -BEACH CLEAN ACTIVITY****SWACHH- NIRMAL TAT ABHIYAN**

The beach clean program (**Pavithra Sagaram**) organized by Sree Narayana College in Kannur district is a vital initiative that underscores the importance of environmental stewardship among students and staff. Each year, volunteers from the National Service Scheme (NSS) and the Departments of Zoology and Botany come together to conduct cleaning drives at several renowned beaches, including Dharmadom, Muzhappilangad, Payyambalam, and others, which collectively stretch over 90 kilometers along Kerala's coastline. This coastal area is not only ecologically significant but also plays a crucial role in the social and economic lives of the local inhabitants. The college's beach clean campaign has garnered substantial support from the Kannur Municipal Corporation, district administration, and various NGOs, enhancing its impact. In conjunction with this initiative, the college observes **World Ocean Day** on June 8th, where students and staff unite to collect plastic waste, biodegradable materials, and other hazardous debris from the beaches. With the assistance of Suchithwa Mission and local authorities, the collected waste is scientifically recycled and disposed of properly. Over the years, this dedicated effort has resulted in the removal of tons of waste from these beautiful coastal areas, fostering a cleaner environment and raising awareness about marine conservation among participants and the wider community.

“PAVITHRA SAGARAM” PROJECT

SL NO	Programme	Location	Date	Measurement of Waste	Recycle/ Dispose
1	Megha Beach Clean	Payyambalam	01/10/2024	217 KG	Disposed
2	Beach Clean	Chal Beach	29/08/2023	87 KG	Disposed
3	Megha Beach Clean	Payymabalam Beach	08/06/2023	134 KG	Recycled & Disposed
4	Megha Beach Clean	Payyambalam Beach	08/06/2022	164KG	Disposed
5	Megha Beach Clean	Thottada Beach	29/12/2021	45 KG	Disposed
6	Megha Beach Clean	Muzhappilangad Beach	13/11/2019	121KG	Disposed



PAVITHRA SAGARAM – 2024 (01/10/2024)

The NSS volunteers in connection with ‘Swachata Hi sewa’ organised a beach clean drive at Payyambalam beach on 01/10/2024. The Mayor of Kannur Municipal Corporation Muslih Madathil Inagurated the programme and NSS Programme Officer Miss. E Sreelatha and Mr. Sumesh P C lead the clean drive. 84 volunteers participated the programme and more than 210 Kg plastic waste and 17 Kg bio waste collected from the beach. The wastes are segregated by volunteers and scientifically disposed by authorities of Kannur Municipal Corporation.





PAVITHRA SAGARAM- 2023 (02/10/2023)

As part of *Pavithra Sagaram* project the NSS volunteers in connection with ‘Swachatah Hi Sewa’ cleaned Chal Beach on 02/10/2023. The programme was collobrated with Union Ministry of Tourism and District Tourism Promotion Council. The programme inaugurate by Director of DTPC and NSS Programme Officer E Sreelatah and Sumesh P C lead the programme. Fifty six NSS volunteers actvely participated the programme. As part of the programme total of 153 Kg plastic wastes and bio waste collected.



NATIONAL SERVICE SCHEME
SREENARAYANA COLLEGE KANNUR
UNITS 20,21







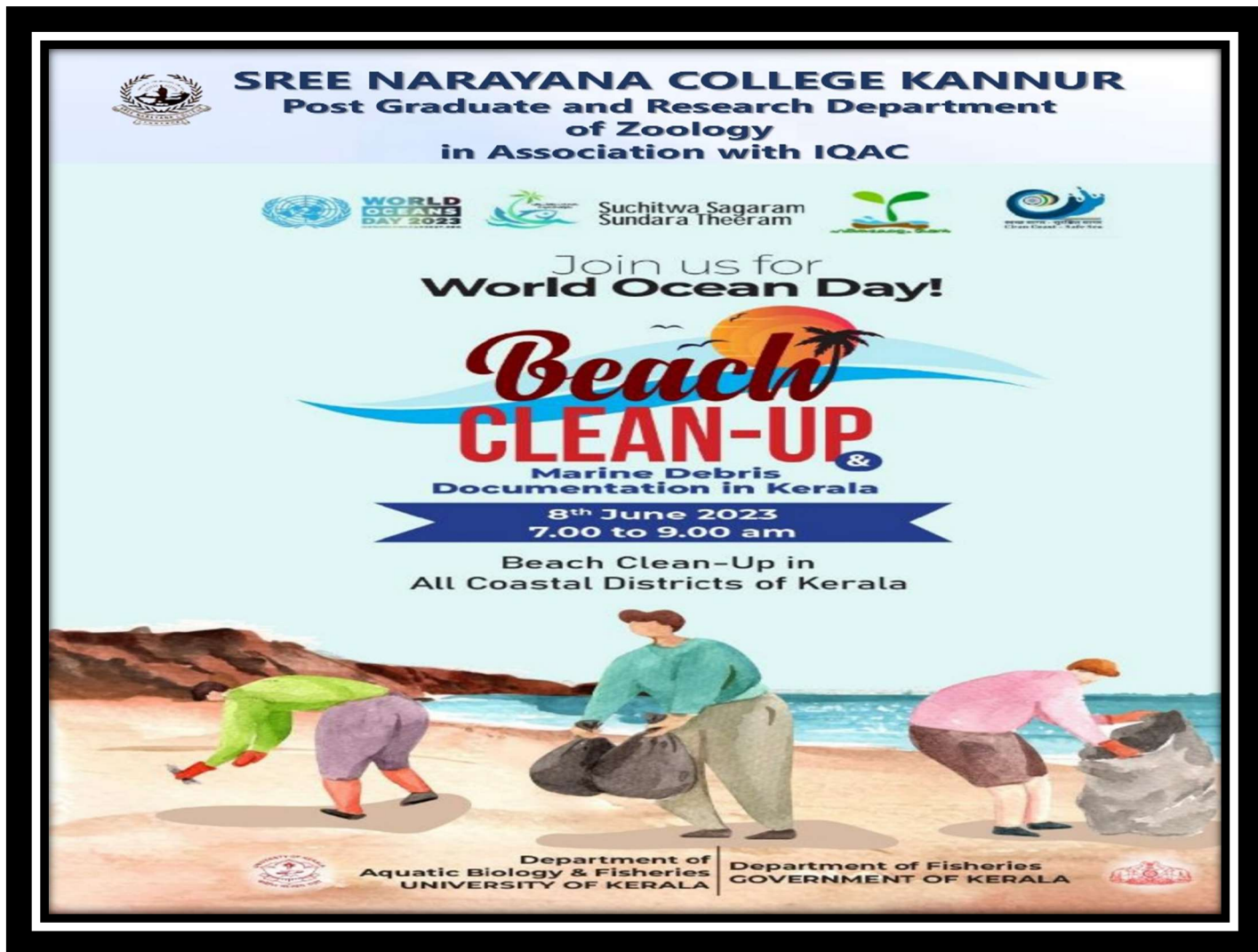


Union Ministry of Tourism as part of the Swachhata Hi Seva project in collaboration with the Kannur District Tourism Promotion Council, conducted cleaning program. The program was held on October 2 at Azhikode Chal Beach. NSS volunteers of Kannur Sree Narayana College also participated in the program.



PAVITHRA SAGARAM – BEACH CLEAN DRIVE 2023 (08/06/2023)

Zoology Department of Sree Narayana College Organised a ‘*Pavithra Sagaram*’ programme on 08/06/2023, in connection with world ocean day. The programme was associated with IQAC, Department of Aquatic Biology University of Kerala and Department of Fisheries, Government of Kerala. The programme inaugurated by Honourable Minister, Sri. Kadannapally Ramachandran, Fisheries, Govt. Of Kerala. 106 students of the Zoology Dept and staff also participated the programme. 196 Kg waste collected by this event. This programme was held in Payyambalam beach.





PROGRAMME COORDINATORS

HEAD OF THE DEPARTMENT

DR PREETHAKUMARI V.M

PROGRAMME COORDINATOR

DR.PRASAD B.O

COMMITTEE MEMBERS

MS. NITHINYA R

DR.JIPSA.J.R

MS.AMITHA SIVAN A.V

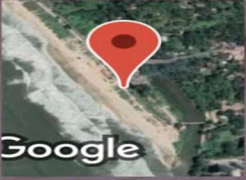
**Organized by Sree Narayana College Kannur
in Association with IQAC
and**

**Department of
Aquatic Biology & Fisheries
UNIVERSITY OF KERALA**

**Department of Fisheries
GOVERNMENT OF KERALA**

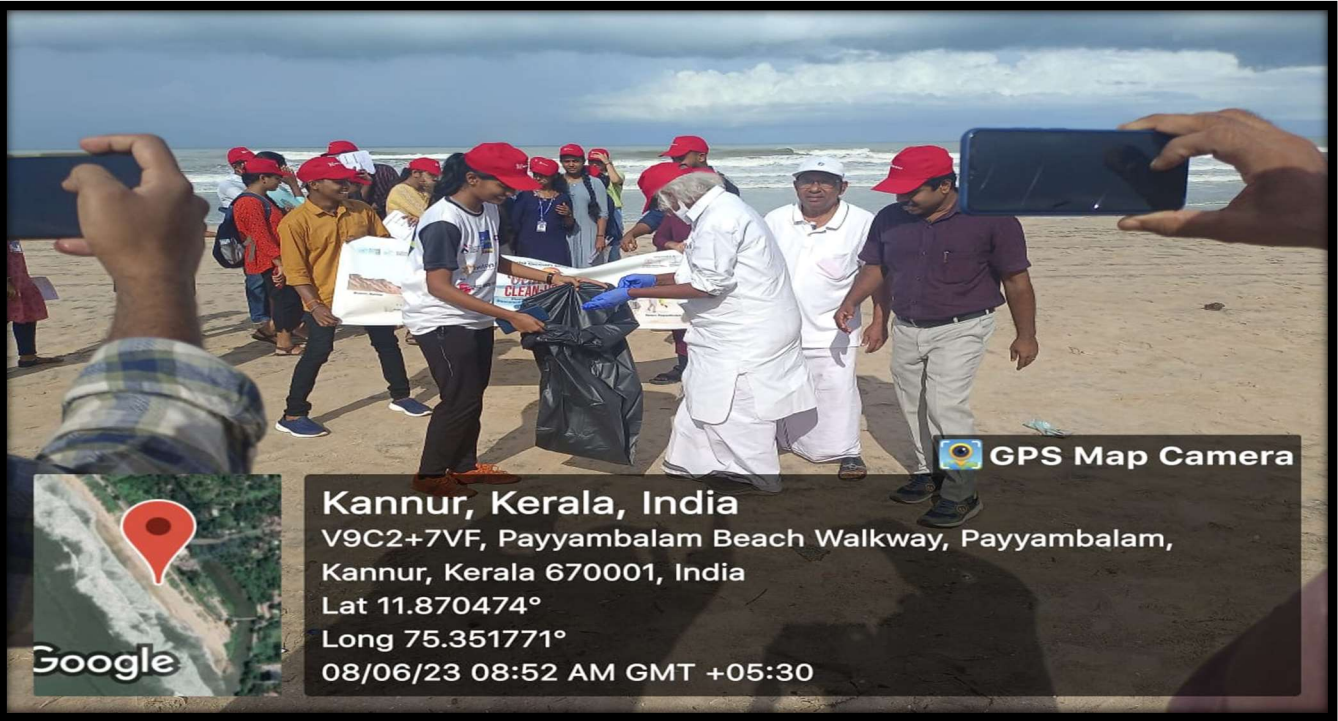
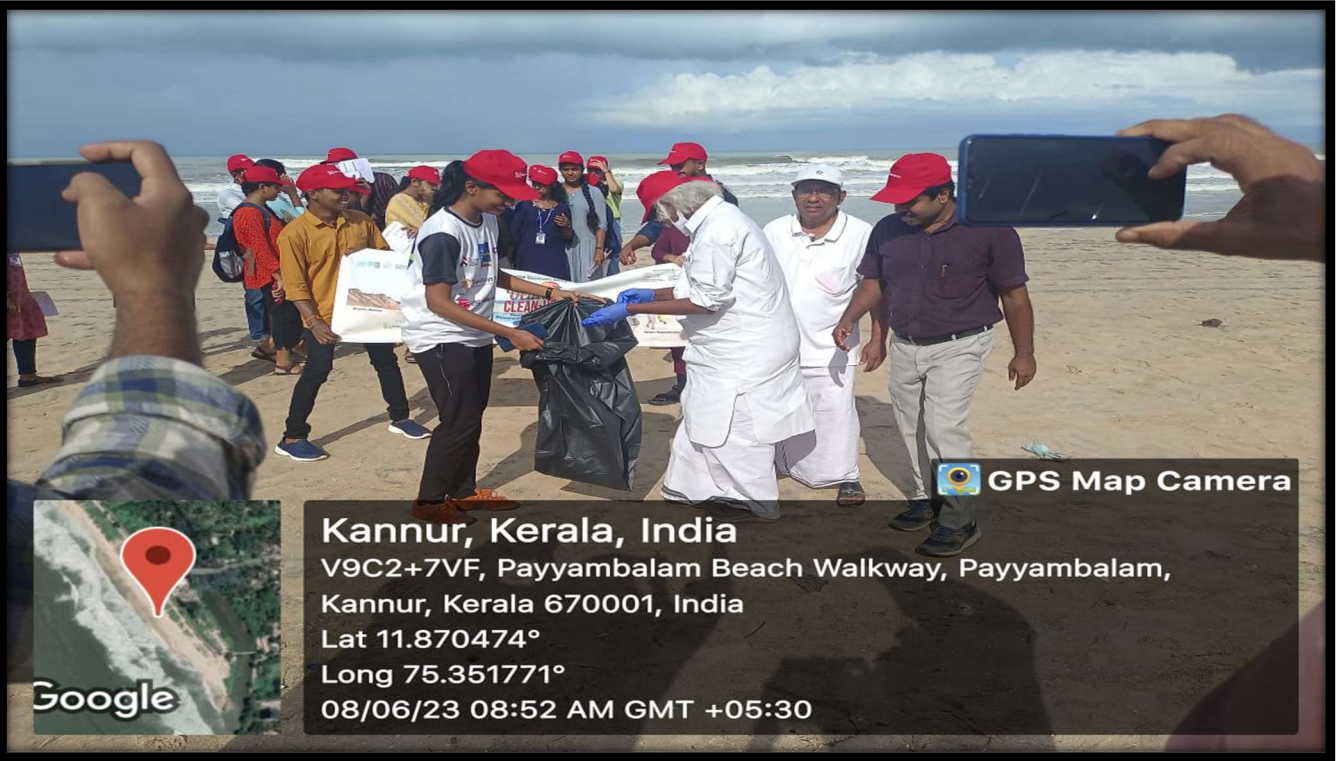


GPS Map Camera



Kannur, Kerala, India
V9C2+7VF, Payyambalam Beach Walkway, Payyambalam,
Kannur, Kerala 670001, India
Lat 11.870691°
Long 75.352009°
08/06/23 08:44 AM GMT +05:30







PAVITHRA SAGARAM -NCC (03/07/2023)

As part of Pavithra Sagaram project the NCC cadets of Sree Narayana College cleaned the Payyambalam beach. Seventy eight NCC cadets participated in the event. The Payyambalam beach is major tourist attractions in North Kerala. The Payyambalam beach extends to an area of 4.3 KM. As part of this event the Cadets collected 85 Kilograms of plastic waste and 11 Kilograms of Bio Degradable waste. The waste was scientifically disposed with the help authorities of Kannur Municipal Corporation.










PAVITHRA SAGARAM – 2022 (08/06/2022)

In connection with World Ocean Day (08/06/2022) The Dept. of Zoology Sree Narayana College Kannur, in association with Ocean Society of India and National Centre for Ocean Research organised a programme on Cleaning Payyambalam Beach in Kannur District. The beach has total coverage area of the beach 4 Kilometres. In this function the more than 180 kilogramme of the plastic and other non-degradable waste collected by students. The programme inaugurates Dr. Ajayakumar, Sree Narayana College Kannur, and presided by Dr. B O Prasad, Head Dept. of Zoology. In this function 103 students participated.



 **NCCR**  **OSI** OCEAN SOCIETY OF INDIA


 **SREE NARAYANA COLLEGE**
KANNUR 
Department of Zoology आज़ादी का
अमृत महोत्सव

WORLD OCEAN DAY
CELEBRATION 2022

Date : 8th June 2022
Venue: Payyambalam Beach

Revitalization: Collective Action for the Ocean
SAY NO TO PLASTIC, POLLUTION AND SAVE OCEAN

BEACH CLEANING ACTIVITY
KANNUR DISTRICT



Supported by
Ocean Society of India, Ocean Society of India-Cochin Chapter
& National Centre for Coastal Research (NCCR), MoES, GoI





PAVITHRA SAGARAM – 2021 (29/12/2021)

The NSS volunteers cleaned the Thottada Beach as part of *Pavithra Sagaram* project. The programme was held on 29 December 2021. The beach has total 2.4 kilometres, volunteers collected all the plastic and bio-degradable waste from the beach. Forty seven students participated the programme.

29 DECEMBER 2021

Thottada beach was cleaned as a camp activity.





PAVITHRA SAGARAM – 2019 (13/11/2019)

The NSS volunteers cleaned the Muzhappilagod Beach as part of Swachh – Nirmal Tat Abhiyaan. The programme in connection with *swachh – nirmal tat abhiyaan* by Ministry of Environment and Forest. The beach area contains more than seven Kilometres, NSS Volunteers cleaned 3 kilometres of the beach area. The programme inaugurated by Dr. M P Shanoj, NSS Programme Officer. Ninety Three volunteers participated the programme





SN Shramadan – 2021-2024

The SN Shramadan initiative is a significant environmental program organized annually by the National Service Scheme (NSS), National Cadet Corps (NCC), and various departments of the college. This program focuses on cleaning local water bodies, ponds, and wetlands in the vicinity of the college, fostering community engagement and ecological conservation.

- The primary aim of Shramadan is to enhance environmental awareness among students and local communities. By participating in cleaning activities, students learn about the importance of maintaining clean ecosystems and the detrimental effects of pollution.
- A critical component of the initiative is the promotion of a plastic-free environment. Students engage in activities that involve collecting plastic waste and educating community members about the impacts of plastic pollution. This aligns with broader efforts seen in various organizations aimed at reducing plastic waste and fostering sustainable practices.
- The program emphasizes the conservation of local biodiversity by cleaning habitats that are crucial for various species. By restoring these areas, students contribute to the health of local ecosystems, which is vital for both wildlife and human communities..

Activities Conducted

- **Cleaning Drives:** Students actively participate in cleaning drives targeting local water bodies, where they remove debris and plastic waste. This hands-on approach not only cleans the environment but also instills a sense of responsibility towards nature among participants.
- **Awareness Campaigns:** Alongside physical cleaning efforts, awareness campaigns are conducted to educate both participants and local residents about plastic pollution and its effects on marine life and ecosystems. These campaigns often include workshops, seminars, and distribution of educational materials.
- **Collaboration with Local Organizations:** The program collaborates with local environmental organizations to enhance its impact. Such partnerships help in sharing resources, expertise, and extending outreach efforts within the community.
-



Shramadan I (Kanambuzha, 04/03/2024 to 10/03/2024)

Kanampuzha was cleaned under the leadership of District Sanitation Mission and Kannur SN College NSS Unit 20,21. The cleaning was on March 4, 2024 from 3 pm to 6 pm. Volunteers from the Youth Welfare Board also participated in the clean-up. Kanampuzha Survival Committee Member Shri M.V. Janardhanan, Harita Keralam Mission District Mission Coordinator Mr. EK Somasekaran, SN College N.S. S. Coordinator Mr. Sumesh PC, Harita Keralam Mission District Resource Persons Mr. P. Sunil Dutton, Shri K. Narayanan spoke.




എൻ.എസ്.എസ്. യുവജനക്ഷേമ ബോർഡ് വള്ളൂർവർലാർ കാനമ്പുഴ ശുചീകരിച്ചു

കാനമ്പുഴ ശുചീകരണത്തിന് വിദ്യാർത്ഥികളും യുവജനങ്ങളും

കണ്ണൂർ
കാനമ്പുഴയിലെ പ്ലാസ്റ്റിക് കൂപ്പി ഉൾപ്പെടെയുള്ള മാലിന്യങ്ങൾ നീക്കാൻ വിദ്യാർത്ഥികളും യുവജനങ്ങളും രംഗത്തിറങ്ങി. കണ്ണൂർ എസ്.എൻ കോളേജിലെ എൻ.എസ്.എസ് വള്ളൂർവർലാർ യുവജനക്ഷേമ ബോർഡ് വള്ളൂർവർലാർ നായകത്വം ചേർന്ന് ഹരിത കേരളം ജില്ലാ മിഷന്റെ നേതൃത്വത്തിലായിരുന്നു ശുചീകരണം. നാലര കിലോമീറ്റർ ദൂരമാണ് ശുചീകരിച്ചത്. ഹരിതകേരളം ജില്ലാ മിഷൻ കോ-ഓഡിനേറ്റർ ഇ.കെ. സോമശേഖരൻ, കാനമ്പുഴ പുനരുജ്ജീവന സമിതി അംഗം ജനാർദ്ദനൻ എന്നിവർ നേതൃത്വം നല്കി. മുണ്ടേരി പഞ്ചായത്തിലെ അയ്യപ്പൻ മലയിൽ ആരംഭിച്ച് അറബിക്കടലിൽ അവസാനിക്കുന്ന കാനമ്പുഴയെ വീണ്ടെടുക്കാൻ അഞ്ച് വർഷമായി നടപ്പാക്കിയ കർമ്മപദ്ധതി പൂർത്തിയാക്കുന്ന ഘട്ടത്തിലാണ്. 6.40 കോടി രൂപ പുനരുജ്ജീവന പ്രവർത്തനങ്ങൾക്ക് ചെലവഴിച്ചു. പുഴയുടെ ഇരുകരകളിലെ പാടശേഖരങ്ങളിൽ നെൽകൃഷിയും തുടങ്ങിയിട്ടുണ്ട്.

ദേശാഭിമാനി Thu, 07 March 2024
<https://epaper.deshabhimani.com/c/74692996>



കണ്ണൂർ

കാനമ്പുഴ ഇനി സുഖമായി ഒഴുകുകയും

ഞങ്ങൾ... ഭരള, നമുക്കുണ്ടല്ലോ...!!

കേരളം കർമ്മപദ്ധതി ഹരിതകേരളം മിഷൻ





Shramadan II – Madayipara (11/10/2023)

In a noble endeavor to preserve the natural beauty of Kannur's Madayipara region, students from the Department of Botany at Sree Narayana College took part in a cleanliness drive, focusing on the area's vital water bodies. With great enthusiasm, the students converged upon the historically significant Jutha pond, meticulously cleaning its waters and surroundings. This eco-friendly initiative not only showcased the students' commitment to environmental conservation but also highlighted the importance of preserving Madayipara's ecological richness. Through their efforts, the Botany department reinforced its dedication to fostering a sustainable future, inspiring others to join the quest for a greener tomorrow.





Shramadan III – (Kannur South Railway Station 17/11/2022)

As part of Swachh Ta hi Seva campaign the NSS volunteers cleaned Knanur South Railway Station.







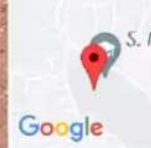
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VC55+QH2, S N College Road,
Elayavoor, Kerala 670007, India
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06/06/24 12:44:06 PM



Elayavoor, Kerala, India
VC55+QH2, S N College Road,
Elayavoor, Kerala 670007, India
Lat 11.859227° Long 75.408911°
06/06/24 12:49:49 PM



Elayavoor, Kerala, India
VC55+QH2, S N College Road,
Elayavoor, Kerala 670007, India
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06/06/24 12:50:45 PM



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VC55+QH2, S N College Road,
Elayavoor, Kerala 670007, India
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Bio-Diversity Club Programme

Biodiversity register of Muzhapilangadu Panjayath have been done by Biodiversity club members of biodiversity club and botany department





Muzhappilangad, Kerala, India



Muzhappilangad, Kerala, India



SACRED GROVE CONSERVATION- Thoniyatt Kavu, Thottada.

CARBON SEQUESTRATION POTENTIAL OF TREESPECIES OF THONIYOTTU
KAVU, THOTTADA, KANNUR

Carbon sequestration phenomenon is the extraction of the atmospheric carbon dioxide and its storage in terrestrialecosystems for a very long period of time.

Plants store carbon for as long as they live, in terms of the live biomass. Oncethey die, the biomass becomes a part of the food chain and enters the soil as soil carbon. If the biomass is incinerated, the carbon is re-emitted into atmosphere. Most terrestrial carbon storage is in tree trunks, branches, foliage, and roots which is often called biomass. Forest ecosystem is one of the most important carbon sinks of the terrestrial ecosystem. Plant uptakes the carbon dioxide by the process of photosynthesis and stores the carbon in the plant tissues. Forest ecosystem plays important role in the global carbon cycle by sequestering a substantial amount of carbon dioxide from the atmosphere. Carbon sequestration" describes the process of capture and long-term storage of atmospheric carbon dioxide in a stable state. Sacred groves remained protected by the societies in the region and also play a vital role in carbon sequestration. In the present scenario, due to modernization many forest have been replaced for the development purposes of mankind. It results in massive deforestation, habitat degradation, loss of biodiversity and climate change. Although many sacred groves are also affected with human intervention and habitat destruction in the name of development. But still they remained protected as comparison to other forests. Many endangered and threatened plant

In this paper we briefly review the study of sacred groves in the light of conservation and carbon sequestration. Sacred groves forests due to their protected status possess high carbon sequestration potential, and can reduce atmospheric CO₂ effectively. Some studies have reported the carbon stock and sequestration potential of the sacred groves forest of India. However, all these sacred forests are rural and more or less resemble a reserve forest.

In the present study, the estimation of the biomass and carbon sequestration rates for the tree species carried out with diameter and breast height in Thoniyottu Kavu, Kannur was conducted. We investigate the extent to which a college can rely on the carbon sequestration by tree species located in the Thoniyottu Kavu temple. Increasing number of infrastructural developments



inside the campus is leading to the cutting down of trees with great importance, new pavements also have led to increasing temperatures which in turn causes trees to lose their life increasing carbon emissions.

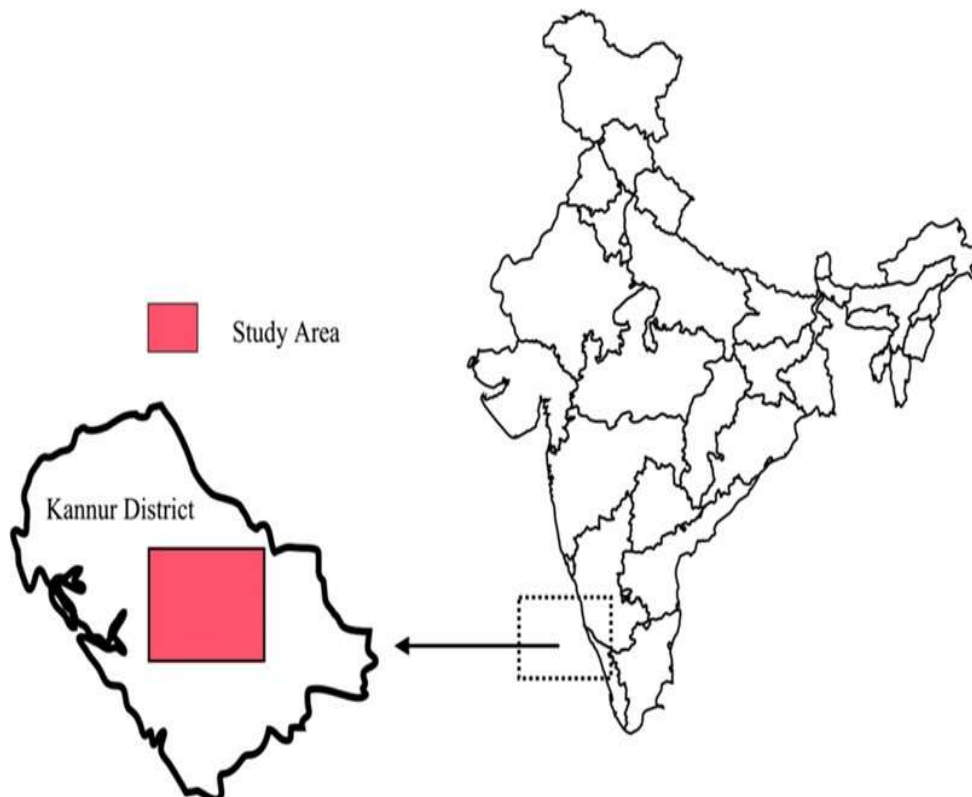
In spite of conducting awareness campaigns and tree plantations, due to the nature of the soil present in the area of Thoniyottu Kavu, Kannur. The newly planted trees find it very hard to grow up. So, they die early due to the lack of water and the inability of the plants to break some hard rocks with their roots. In this present scenario where the temperature is increasing drastically and due to arising air pollution from the nearby infrastructures, it felt very much relevant to evaluate the amount of carbon sequestered by the plants present inside the sacred groves. The biomass and carbon sequestration of around a total of approximately around 24 trees was conducted inside the protected forest and the results were calculated.

OBJECTIVES OF THE STUDY

1. To identify the tree species, present in the Thoniyottu Kavu, Kannur.
2. To identify total organic carbon sequestered by each tree species in the Thoniyottu Kavu, Kannur.
3. To identify the total amount of carbon dioxide sequestered by each tree species in the Thoniyottu Kavu, Kannur.

Study Area

The study area Thoniyottu Kavu, is located near Thottada in the district of Kannur, Kerala. Normal temperature present in the Study area varies from 25 degrees to around 40 degrees at the maximum. The total area of Thoniyottu kavu was taken into consideration and it approximately came around 2 acres of land. Since the land area of the Kavu is small, most of the areas are occupied by Shrine.



THONIYOTTU KAVU



RESULT AND CONCLUSION

From the study conducted in Thoniyottu Kavum, Kannur, we could identify 24 different types of tree species. The field data of trees studied from the kavum show that *Cocos nucifera* L. tree species were dominant and are the most in number (16 to be exact). The least number of trees belonged to the following species, *Cassia fistula* L., *Cephalotaxus manni* L., *Prunus dulcis* Batsch. etc. Accordingly the largest carbon storage value came from the following trees *Tamarindus indica* L. (3152.17kg/tree) CO₂ sequestered is 11568.4639Kg, *Couroupita guianensis* Aubl. (2244.76kg/tree) CO₂ sequestered is 8238.2692Kg and the least value of carbon storage came from *Cassia fistula* L. (7.11kg/tree) CO₂ sequestered is 26.0937Kg, *Magnolia champaca* (L.) Baill. Ex Pierre (11.42kg/tree) CO₂ sequestered is 41.9114 Kg, *Swainsona galegifolia* (Andrews) R.Br. (21.25kg/tree) CO₂ sequestered is 77.9875 Kg. As the diameter of species increases its biomass and carbon storage capacity increases also sequester more carbon, removes more carbon dioxide from atmosphere.

List of species and their above ground, below ground, and total biomass with carbon is given in table 2. It is from the below findings that the type of species in a kavum to be planted is given more insight upon. It should be planted according to keeping all environmental parameters (Location/Bio- geographic Zone, Climate, Soil type, annual temperature, Ground water availability, annual rainfall, etc.) in mind. Also, the species which harvest more CO₂



from atmosphere, should be planted more. This helps to ensure better environment as well as ensure the purification and the lessening of the amount of carbon dioxide in the given kavu environment where a lot of people gather together.

In this study we have found out that *Tamarindus indica* L. has sequestered the most amount of carbon inside the kavu followed by *Couroupita guianensis* Aubl. So, it is mostly advisable to plant more of plants belonging to these species as they have the capacity to sequester/regulate carbon in the atmosphere. The least amount of carbon was sequestered by *Cassia fistula*. Planting a greater number of trees with higher carbon sequestering potential would help in increasing the air quality inside our kavu and the air surrounding.

Sacred groves have a big potential to conserve existing carbon stock and increase its carbon sequestration level in future. But it is important to understand the relationship between tree species and their carbon storage potential, so that species specific conservation strategies can be adopted for management of the sacred groves areas. It is important to revive and imbibe our traditions, culture and values among younger generations to ensure the sustainable use of resources of sacred groves along with ecological education.

Future Scope

Sacred groves are very important source of ecosystem services especially carbon sequestration. These sacred sites need to be explored more with regard to the services provided by them to the mankind, so that proper management strategies can be developed by the governing bodies with the help of local stakeholders.



PROJECT GROUP MEMBERS



**ASWATHI P., HRIDHYA K., JINCY P., KAJAL SAJEEVAN, NANDANA P.R.,
NAVANEETHA M.K., NEHA K DEV, SREELAKSHMI P., AMAL K., ATHUL RAJ R.
S. AND SHANU M.**

URJA KIRAN BRIEF Report (2019-2023)

EMC initiated URJA KIRAN, Energy Conservation Awareness Campaign in 2015. Centre for Environment and Development is the Resource Agency (RA) for coordinating the activities of URJA KIRAN – Energy Conservation Awareness Campaign (ECAC) in Kerala.

OBJECTIVES OF URJA KIRAN

The objective of URJA KIRAN is to create awareness among the general public and equip them for efficient management of all forms of energy, to promote energy efficiency and energy conservation and to develop new sources of energy as well as novel energy technologies with a view to increasing the production and facilitating the use of energy on a sustainable basis. It aims at seeking the Participating Agencies (PAs) to convene, catalyze and facilitate works in the energy conservation related activities in a participatory mode across the State. Therefore, institutions that have been involved in community participation, environment, and energy conservation work are invited to apply for the task.

ACTIVITIES

This program, in general, focuses on enhancing environmental awareness and fostering critical thinking and problem- solving approaches among participants, by helping them to become actively involved in the exploration of their immediate environment through understanding certain concepts and undertaking some selected activities' related to Energy conservation and energy efficiency. The intention is to encourage an approach which takes some of these basic ideas and adapts them to suit local needs. Thus the activities of the ECAC program consists of an awareness component to be conducted as an initial phase followed by an action component to be initiated by the PAs as a follow up program.

1. ***Energy Conservation Awareness Workshops/Seminars:***
2. ***Energy Conservation Rally, Pledge and Signature Campaign:*** To celebrate National Energy Conservation Day/Week between December 13th to 20th December one each in all 140 Legislative Assembly Constituencies in Kerala with the participation of MLAs.
3. ***Taluk Level Short Video Production Competition:*** Aimed at giving a good message to people on Life and Energy Efficiency through short videos with followable models and good practices in energy conservation and energy efficiency at local level highlighting the environmental benefits and to disseminate the videos using social media along with other resource materials developed by EMC.



4. ***Innovative Approaches for public awareness on energy conservation and efficiency:*** Encourage Participating Agencies to create awareness among public about energy conservation and efficiency through various innovative approaches like volunteering artists for graphic wall paintings, cut outs etc. in city centers
5. ***District level Electric Vehicle Owner's Meet:*** To honor the front runners in EV and to share their experiences and encourage others to Go Electric by utilizing media.

Sree Narayana College, Kannur is participated and continued in the Urja Kiran Programme from 2015-2023. The Urja Kiran programme is considered as an extension programme because this programme mainly involved the public people mainly the kudumbasree members of the various legislative assembly of Kannur District . S N College Kannur involved in conducting program foe kudumbasree members in Darmadam, Puzhathi, Kannur, Chembilode , Pathiriyad etc. We gave training programme for the LED bulb making, We provide short video making programme for the Payyannur area related to energy conservation. Wall painting competition is conducted in the Kannur area. In each programme about 150-250 public participants were participated.



ശ്രീ നാരായണ കോളേജ് കണ്ണൂർ ഡിസാർട്‌മെന്റ് ഓഫ് ബോട്ടണി

ഊർജ്ജ കിരൺ 2021-22 'ഗോ ഇലക്ട്രിക്സ് ക്യാമ്പയിൻ' ഊർജ്ജ കാര്യശേഷിയും ഊർജ്ജ സംരക്ഷണവും വനിതാസംരംഭക ശാക്തീകരണ ശിൽപശാല



ബഹുമാന്യരേ,

ഊർജ്ജ കിരൺ പരിപാടിയുടെ ഭാഗമായി കണ്ണൂർ താലൂക്കിലെ കുടുംബശ്രീ സംരംഭകരുമായി ഏകോപിച്ച് ഒരു ഊർജ്ജ സംരക്ഷണ ബോധവൽക്കരണ പരിപാടിയും ഗോ ഇലക്ട്രിക്സ് ക്യാമ്പയിനുമും 6.12.2021 ന് ഉച്ചയ്ക്ക് 1.30ന് ശ്രീ നാരായണ കോളേജ് സെമിനാർ ഹാളിൽ വെച്ച് സംഘടിപ്പിക്കുന്നു. പരിപാടികളുടെ ഔദ്യോഗികമായ ഉദ്ഘാടനം ബഹുമാനപ്പെട്ട എം.എൽ.എ ശ്രീ കടന്നപ്പള്ളി രാമചന്ദ്രൻ നിർവഹിക്കുന്നു. പ്രസ്തുത പരിപാടിയിലേക്ക് എല്ലാവരെയും സാദരം ക്ഷണിക്കുന്നു.

രജിസ്ട്രേഷൻ
സ്വാഗതം
അവധിക്കൻ
ഉദ്ഘാടനം
വിരമം
കൃത്യ നന്ദി

- :- ഡോ. ജി.ഷ്ണ. എം. വി. (കോ-ഓർഡിനേറ്റർ, ഊർജ്ജ കിരൺ)
- :- ഡോ. കെ. അജയകുമാർ (പ്രിൻസിപ്പൽ, എസ്.എൻ. കോളേജ് കണ്ണൂർ)
- :- ശ്രീ കടന്നപ്പള്ളി രാമചന്ദ്രൻ (ബഹു. എം.എൽ.എ, കണ്ണൂർ)
- :- ശ്രീ. സജേഷ് കുമാർ പി.കെ. (കോൺസിൽ മെമ്പർ, കിഴുത്തള്ളി)
- :- ശ്രീമതി : മിനി കെ.എസ്. (കോൺസിൽ മെമ്പർ, കുന്ദവ)
- :- ഡോ. അനീത പി.കെ. (കോർഡിനേറ്റർ, ഐ.കുട്ട.എ.നഗർ)
- :- ഡോ. കെ.പി. പ്രഭാത് (റിസോഴ്സ് പോസ്റ്റൽ, ഇ.എം.സി)
- :- ഡോ. അപർണ്ണ പി (അസി. ഡയറക്ടർ ബോട്ടണി വിഭാഗം, എസ്.എൻ. കോളേജ്, കണ്ണൂർ)



സാങ്കേതിക സാമ്പത്തിക സഹായം സെന്റർ ഫോർ എൻവയോൺമെന്റ് ഏന്റ് ഡവലപ്പ്മെന്റ്, എനർജി മാനേജ്മെന്റ് സെന്റർ കേരള




**സെന്റർ ഫോർ എൻവിയോൺമെന്റ് & ഡെവലപ്മെന്റ്
എനർജി മാനേജ്മെന്റ് സെന്റർ , കേരള
എസ്.എൻ.കോളേജ് , കണ്ണൂർ**



**ഉച്ചർജ്ജ
സംരക്ഷണ റാലി
ഡിസംബർ 14
ദേശീയ ഉച്ചർജ്ജ സംരക്ഷണ ദിനം**

**ഉച്ചർജ്ജ കിരൺ 2018 – 19
ദേശീയ ഉച്ചർജ്ജ സംരക്ഷണ ദിനം**

2018 ഡിസംബർ 14 വെള്ളി
രാവിലെ 10 മണി
എസ്.എൻ.കോളേജ് , കണ്ണൂർ

ഉച്ചർജ്ജ സംരക്ഷണ പ്രതിജ്ഞ
ഡോ: ശിവദാസൻ തിരുമംഗലത്ത്
(പ്രിൻസിപ്പാൾ, എസ്.എൻ. കോളേജ്, കണ്ണൂർ)

ഉച്ചർജ്ജ സംരക്ഷണ സന്ദേശം
ഡോ : എൻ. സാജൻ
(ഐ. ക്യു. എ. സി. കോഓർഡിനേറ്റർ , സെക്രട്ടറി, സ്റ്റാഫ് കൗൺസിൽ, എസ്.എൻ.കോളേജ്)

റാലി ഫ്ലാഗ് ഓഫ്
ശ്രീമതി സീന കെ.പി.
(വാർഡ് മെമ്പർ , എജയാവൂർ)

സാങ്കേതിക സാമ്പത്തിക സഹകരണം
സെന്റർ ഫോർ എൻവിയോൺമെന്റ് & ഡെവലപ്മെന്റ്
എനർജി മാനേജ്മെന്റ് സെന്റർ, കേരള

സംഘടനം
ബോട്ടണി വകുപ്പ്
എസ്.എൻ.കോളേജ് , കണ്ണൂർ



**ഊർജ്ജ കിരൺ 2018-19
ഊർജ്ജസംരക്ഷണ
ബോധവൽക്കരണ പരിപാടി**
2019 മാർച്ച് 23 ന്
ഉച്ചയ്ക്ക് 2.30 മണിക്ക്
ചിറക്കൽ ഗ്രാമ പഞ്ചായത്ത് ഹാൾ

സംഘാടനം
ഡിപ്പാർട്ട്മെന്റ് ഓഫ് ബോട്ടണി, ശ്രീനാരായണ കോളേജ്, കണ്ണൂർ
സാമ്പത്തിക സാങ്കേതിക സഹായം
എനർജി മാനേജ്മെന്റ് സെന്റർ, കേരള
സെന്റർഫോർ എൻവിയോൺമെന്റ് & ഡവലപ്മെന്റ്
തിരുവനന്തപുരം

കാര്യാപരിപാടികൾ

രജിസ്ട്രേഷൻ :

പ്രാർത്ഥന :

സ്വാഗതം : ഡോ : ജിഷ്ണ എം. വി.
(ഊർജ്ജകിരൺ കോ- ഓർഡിനേറ്റർ)

അധ്യക്ഷ : ഡോ. സി. ആർ. ലളിത (എച്ച്. ഒ. ഡി. ഡിപ്പാർട്ട്മെന്റ് ഓഫ്
ബോട്ടണി , എസ്. എൻ. കോളേജ് കണ്ണൂർ)

ഉദ്ഘാടനം : **ശ്രീ. എ. വി. അജയകുമാർ**
(ഡയറക്ടർ , സയൻസ് പാർക്ക്, കണ്ണൂർ)

ആശംസ : ശ്രീ. റാഷിദ്
(സെക്രട്ടറി, ചിറക്കൽ പഞ്ചായത്ത്)

ക്ലോസ് : **ഊർജ്ജ കാര്യാശേഷിയും സംരക്ഷണവും**
: ഡോ. കെ. പി. പ്രശാന്ത്
(റിസോഴ്സ് പേഴ്സൺ, ഇ. . എം. സി.)

നന്ദി : കുമാരി സിൻഷ
(വിദ്യാർത്ഥിനി , എസ്. എൻ. കോളേജ്, കണ്ണൂർ)

**URJA KIRAN 2018****REPORT ON ENERGY CONSERVATION RALLY 2018**

1. Name and address of Organization :Sree Narayana College, Thottada, Kannur

2. Details of Rally Conducted:

1.	Date of Rally	:	14.12.2018 (postponed to 15.12.2018 due to harthala)
2.	Place of Rally Flag off	:	SN College, Kannur (Elayavoor, Kannur Co operation)
3.	Name of Panchayat/Municipality/Corporation		Elayavoor , Kannur Co operation
4.	Name of Assembly Constituency		Kannur Municipality
5.	Name & designation of the Chief Guest Flagged off the Rally		Seena K P (Ward member of Elayavoor)
6.	Details of other guests participated in the program		Dr. Anitha P K (Principal In charge,), Dr. C R Lalith (HoD of Botany), Dr. K P Prasanth (Assistant Professor), Dr Jeeshna (Urja Kiran Co-ordinator), Dr. Shakira (Assistant Professor), Janardhan (SN office suprendent), Prakashan K (Office Accountant), P C Vikas (Non-teaching staff)
7.	No. of Participates and category of participants (Students, General public, SHG members etc...)		Students:150 Public :100



8.	Details of Publicity Given to the program (attach paper cuttings, notice etc)	Already sent through mail
9.	Whether photographs of the program attached	NO
10.	Whether statement of expenditure and utilisation certificate in the prescribed format attached	YES

Place :Kannur

Jeeshna M V

Assistant Professor, Dept. of Botany, SN College,

Kannur

Date :17.12.2018

(Urja Kiran, Programme co-ordinator)

Annexure 1**ENERGY MANAGEMENT CENTRE - KERALA****APPLICATION FOR EMPANELLING AGENCIES FOR URJA KIRAN 2018-19**

SECTION A : BASIC INFORMATION			
1.	Name of the Organisation	Sree Narayana College, Thottada, Kannur	
2.	Address for Communication	Department of Botany, Sree Narayana College, Thottada (PO), Kannur, Pin:670 007	
3.	Telephone	0497-2731085	Fax
4.	Email	principal@sncollegeknr.com	
5.	Registration No.	4232	
6.	Date of Registration	26/8/1952	



7. Details of Contact Person					
a.	Name	Dr. JEESHNA M V			
b.	Designation	ASSISTANT PROFESSOR, DEPARTMENT OF BOTANY, SREE NARAYANA COLLEGE, THOTTADA (PO), KANNUR, PIN: 670 007			
c.	Telephone (Mobile and Land line)	9744262981			
d.	Email	mvejeeshna@gmail.com			
8 Details of Participation in URJA KIRAN Previous Years (if applicable only)					
Year	Activities conducted	Assembly Constituency	Place	Total participants	Grant Received (Rs.)
2015-16	Awareness class and walkathone	Kannur	GowardanaGiri	168	12000/-
	Awareness Class and Walkathone	Mattanur	Mattanur Higher Secondary School	154	11000/-
2016-17	Awareness class and walkathone	Kannur	Thottada Higher Secondary School, Thottada,	118	11000/-
	Awareness class and walkathone	Kannur	Kunnirikka U P School, Vegad	220	11000/-
	Awareness class and walkathone	Kannur	Krishna Menon Memorial Govt. Women's College, Pallikunnu	125	11000/-
2017-18	Awareness Class /Workshop/Seminar	Dharmadam	Panjayath Hall, Vengad	220	
		Kannur	Kannur	250	



		(Caltex Junction Kannur)		
	Flash Mob	Kannur Edakkad (Thottada) (Thottada Junction)	200	45000/-
		Dharmadam Chakkarakal (Chembilode Panjayath) (Chakkarakkal Bus stand)	250	
		Dharmadam Muzhapilangad u (Muzhapilangad u Beach)	500	
		Koothuparam bha u(Koothuparam bhu bus stand)	300	
	Energy Conservation Rally on 14th December or in between 10th to 14th	Dharmadam Govt Higher Secondary School, Vengad	150	3000/-



	RENEWABLE ENERGY PROMOTION WORKSHOP OF ANERT	Dharmadam	Panjayath Hall, Vengad	220	7000/-	
SECTION B: PROJECT DETAILS						
9 Activities Proposed with Financial Details (Attach detailed budget for Each Activity)						
9a: Abstract of Activities Proposed						
Sl. No.	Activity	Name of Assembly Constituency	Place of activity – Venue & Name of Local Body	Name (s) Panchayat/Municipality to be covered	Expected No. of participants	Budget (Rs.)
i.	Awareness class/ Workshop/Seminar/ Exhibition/ Demonstration etc.	Koothuparambha	Panjayath Hall, (Kottayam Panjayath)	Kottayam Panjayath, (PO.Kottayam Poyil) Koothuparambha	150	15000/-
ii.	Public meeting/ Walkathon / Cycle Rally /Flash Mob / Street theatre/other folk media etc.	Koothuparambha Kannur Kannur	Koothuparambha Kannur old bus stand Puthiyatheru	Kannuir Chirakkal	200 200 200	10000/-
iii.	Painting competition	Koothuparambha	Kottayam Panjayath	Koothuparambha	30	3000/-
ENERGY CONSERVATION DAY PROGRAM ON DECEMBER -14, 2018						



Energy Conservation Rally on 14 th December	Kannur Municipality	SN trust Higher Secondary School to Polytechnique	Edakkad Panjayath	150	3000/-
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Total					31,000/-
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9b: Details of Activities Proposed

Awareness Class for energy saving mainly emphasizing the kudumbasree members in Kottayam Panjayath, Koothuparambha

Walkathone / flash mob in the related Panjayath with the help of students and Kudumbasree members Some completion for the participants such as painting, poster etc. and planning to give them prizes.

9b: Specify whether the agency is willing to conduct an Energy Conservation Rally on 14th December, 2018

Yes, Energy conservation rally at Edakkad Panjayath, Kannur Municipality.

10. Details of follow up Activities Envisaged

1. To give training for the Kudumbasree members for making LED bulb as well as repairing the LED bulb.
2. To develop an Urjam Unit in these Panjayath by giving LED bulb with the support of EMC
3. Survey and monitoring the energy usage in these Panjayath where we are going to conduct the URJA KIRAN programme.
4. Engage the school students to a project work related to Energy saving.

SECTION C: ORGANISATIONAL CAPACITY

**11. Details of Energy / Environment Conservation activities undertaken during last 3 years (Other than****URJA KIRAN) - (Attach separate sheets if necessary)**

Sl. No.	Activity	Year & Location	Funding Source (if any)	Major Outcome
i	NEAC 2014-15 Workshop and awareness	Sree Narayana College, Kannur	CED, TVD	Documentation of local Traditional knowledge on water conservation and farming
ii	Urja Kiran 2015-16	Sree Narayana College, Kannur. Mattanur Higher Secondary School, Mattanur	CED and EMC TVD	Awareness of local people by awareness class
iii	Urja Kiran 2016-17	Thottada Higher Secondary School, Thottada, Kunnirikka U P School, Vegad Krishna Menon Memorial Govt. Women's College, Pallikunnu	CED and EMC TVD	Awareness of local people by awareness class
iv	Urja kiran 2017-18	Vengad panjayath Hall, Vengad	CED and EMC TVD	Awareness of local people by awareness class

12. Current activities run by the organisation



12a.	Location of work (whether Village/Panchayat/District/Block/Taluk)					Panjayath
12b.	Population with which they are presently working (Tick appropriate choice)					
	Rural	Urban	Occupational Group	Students/educational Institution	Women Group	Others (specify)
	v		v	v		

12c.	Principal field of activity /operation (Please provide basic information on the key projects carried out by your organisation since last three years (Attach separate sheets if necessary)				
Sl. No.	Project Name	Objectives	Main outcome	Evaluation method	Evaluation results
<ul style="list-style-type: none"> • Many national seminars are conducted by various departments in SN College, Kannur • .Campus cleaning activity the NSS and NCC unit of SN College, Kannur • Bhoomithrasena club associated seminar. 					
13	Major Innovations, if any, by the organisation (Attach separate sheets if necessary)				
	NIL				
14	Whether blacklisted/debarred by any agency (both government and private) in the past? If yes provide details			no	
15	List of documents attached (Yes/No/NA)				
	i	Self Attested Copy of Registration certificate		NA	



	ii	Self Attested Copy of Bye-Law/MoA	NA
	iii	Self Attested Copy of Audit Reports for the last three years	NA
	iv	Copy Project Sanction orders mentioned in Col. 11 & 12c.	NA
	v	Annual Report of activities undertaken in the last 3 years	NA
	vi	Others (if any)	NO
16	Bank Account Details (Attach copy of Pass Book/Cancelled Cheque with Ac holder Name printed):		
	a. Name of Bank with Branch Number:	SBI, THOTTADA, Branch code: 70409	
	b. Account No.	57029519668	
	c. Type of bank account:	Savings	
	d. MICR No.	670009007	
	e. IFS Code	SBIN0070409	
17	a. Name of the Head of the Institution who signed the application	Dr. Sivadasan Thirumangalath	
	b. Designation	Principal	
	c. Phone No.	0497-2731400	
	d. Email	sncollegekannur@gmail.com	

ഊർജ്ജ കിരൺ 2019 -2020

സ്ത്രീ ശാക്തീകരണത്തിലൂടെയുള്ള ഊർജ്ജ സംരക്ഷണ പ്രൊജക്ട്

ഊർജ്ജ സംരക്ഷണ ബോധവൽക്കരണ സെമിനാറും ,എൽ ഇ ഡി ബൾബ്ബ് നിർമ്മാണ - റിപ്പയറിങ് പരിശീലനവും ..

2020 ഫെബ്രുവരി 10 നു ഉച്ചക്ക് 1 :30 ന്

സെമിനാർ ഹാൾ ,എസ് എൻ കോളേജ് ,കണ്ണൂർ

സംഘാടനം : ഡിപ്യൂട്ടി മേയർ ഓഫ് ബോട്ടണി ,എസ് എൻ കോളേജ് ,കണ്ണൂർ

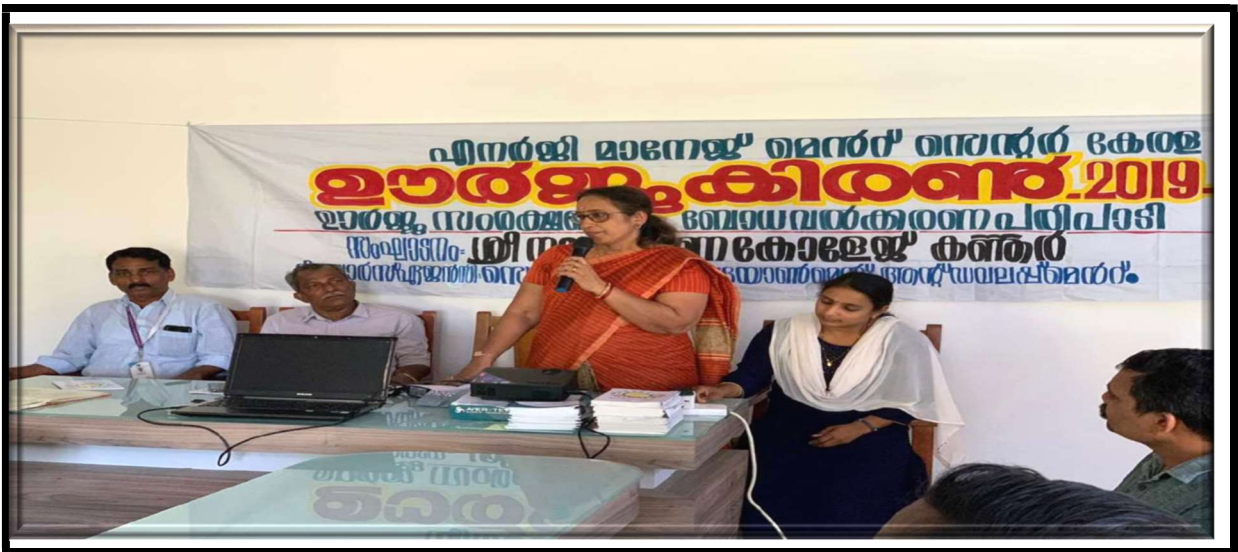
സാങ്കേതിക സാമ്പത്തിക സഹായം : സെന്റർ ഫോർ എൻവിയോൺമെന്റ് ആൻഡ് ഡെവലപ്മെന്റ് ,എന്റർപ്രി മാന്യേജ്മെന്റ് സെന്റർ ,കേരള ബഹുമാന്യരേ .

സ്ത്രീ ശാക്തീകരണത്തിലൂടെയുള്ള ഊർജ്ജ സംരക്ഷണത്തിന്റെ ഭാഗമായി കഴിഞ്ഞുവന്ന വിവിധ പഞ്ചായത്തുകളിലെ ട്രൈബിൾ യൂണിറ്റിലുള്ള കുടുംബശ്രീ പ്രവർത്തകരെ സംഘടിപ്പിച്ചു കൊണ്ട് ഊർജ്ജ സംരക്ഷണ ബോധവൽക്കരണ ക്ലാസും സൗജന്യ എൽ ഇ ഡി ബൾബ്ബ് നിർമ്മാണ , റിപ്പയറിങ് പരിശീലനവും ഫെബ്രുവരി 10 നു ഉച്ചക്ക് 1 :30 ന് എസ് എൻ കോളേജ് സെമിനാർ ഹാളിൽ വെച്ചു നടത്തുന്നു .

രജിസ്ട്രേഷൻ:

സ്വാഗതം :	ഡോ. ജി.ജി.എം വി.ഐ.ഐ. കിരൺ കോർഡിനേറ്റർ)
അദ്ധ്യക്ഷൻ :	ഡോ.കെ.അജയ കുമാർ (പിൻസിപ്പൽ ഇൻചാർജ്. എസ്.എൻ കോളേജ് കണ്ണൂർ)
ഉദ്ഘാടനം :	ശ്രീമതി പി.പി.ദിവ്യ (വൈസ് പ്രസിഡണ്ട് കണ്ണൂർ ജില്ലാ പഞ്ചായത്ത്)
ആശംസ :	ഡോ. കെ.പി പ്രശാന്ത് (ഇ എം സി റിസോഴ്സ് പേഴ്സൺ)
ക്ലാസ് :	ഡോ .സി ആർ ലളിത (ഇ എം സി റിസോഴ്സ് പേഴ്സൺ)
പരിശീലനം :	അബ്ദുൽ അസീസ് (എൽ ഇ ഡി ബൾബ്ബ് പരിശീലകൻ കോഴിക്കോട്)
നന്ദി :	ശ്രീമതി അപർണ പി (അസിസ്റ്റന്റ് പ്രൊഫസർ. എസ് എൻ കോളേജ് ,കണ്ണൂർ)







ഊർജ്ജ കിരൺ 2019 – 20 ഊർജ്ജ സംരക്ഷണ ബോധവൽക്കരണ പരിപാടി

സ്ഥലം: പട്ടുവം ബാങ്ക് ഹാൾ
തീയതി : 08.02.2020



- സ്വാഗതം : ഡോ: ജീഷ്ണ എം.വി.
(കോ-ഓർഡിനേറ്റർ, ഊർജ്ജ കിരൺ)
- ഉദ്ഘാടനം : **ആനക്കീൽ ചന്ദ്രൻ**
(പ്രസിഡൻ്റ്, പട്ടുവം പഞ്ചായത്ത്)
- ആശംസ : **ഷീജ പി.**
(വൈസ് പ്രസിഡൻ്റ്, പട്ടുവം പഞ്ചായത്ത്)
- ക്ലോസ് : **ഡോ: സി. ആർ.ലളിത**
(ഇ. എം.സി, റിസോഴ്സ് പേഴ്സൺ)
- നന്ദി : **കിരൺ വൈഷ്ണവ്**
- സംഘാടനം : ഡിപ്ലാർട്ട്മെൻ്റ് ഓഫ് ബോട്ടണി,
എസ്. എൻ. കോളേജ്, കണ്ണൂർ
- സാങ്കേതിക സാമ്പത്തിക സഹായം : എനർജി മാനേജ്മെൻ്റ് സെന്റർ,
കേരള സെന്റർഫോർ എൻവിയോൺമെൻ്റ് & ഡവലപ്മെൻ്റ്
തിരുവനന്തപുരം



WOMEN EMPOWERMENT PROJECT SREE NARAYANA COLLEGE, KANNUR

ONE DAY AWARENESS PROGRAMME AND LED BULB REPAIRING AND MAKING PRACTICAL CLASS FOR THE WOMEN IN TAILORING UNIT, KANNUR

Date of programme	10.02.2020
Venue	Seminar Hall, Sree Narayana College, Kannur
Number of participants	60
Selection of participants	Women tailoring unit in Kannur District
Amount sanctioned	20000/-
Chief Guests	Smt. Divya P P (Vice President, Kannur Jilla Panjayath) Dr. K Ajayakumar (Syndicate Member, Kannur University Principal in charge)
EMC resource person	Dr. C R Lalitha (EMC, resource person) Dr. K P Prasanth (EMC, Resource person)
LED Bulb trainer	Abdhul Azeez (Kozhikode)
Details of the participants	Details including their name, Address and phone number Panjayath Name of Tailoring unit Signature
Feedback from participants	The active participants in the programme give their feed back

Description of activities

The women empowerment programme was conducted for the selected women tailoring unit of Kannur District. About 60 members from different tailoring unit participated in our programme. After the inauguration session Dr. C R Lalitha, EMC resource person provided an energy saving awareness class for them. She explained almost all electronic equipment and proper usage for energy saving. She gives special stress for energy saving in Tailoring unit. Afterher class several discussion was carried out which is cleared by our resource person. We also distributed Urja Kiran booklet for them. Dr. K P Prasanth, EMC resource person also supported for clearing their doubts.

Mr. Abdul Azeez, the trainer of our programme first give them a effective class for making and repairing the LED bulb by simple languages and also by using backboard. Then he started the repairing mechanism in LED bulb by replacing mother board, bulb etc. After that he started explaining and practices each of them for the LED bulb making process. Everyone participated in bulb making process by self practice. He told them that only below fifty rupees is required for making a bulb. If you buy in bulk you will get it in very low price. So you can very easily make a small scale urjam unit along with the tailoring and also you can save energy in your work place and also in your houses. After the program we provided each of them a bulb which is made themselves. We collected their feed back which was very supportive.

Immediate impact of program if any	<ul style="list-style-type: none">➤ Awareness on energy conservation➤ Practical experience on LED bulb repairing and making
Expected long term impacts and the way forward	<ul style="list-style-type: none">➤ Small scale industry starting with LED bulb making along with tailoring unit.➤ To save energy by replacing ordinary bulb➤ They can get good income➤ Public service➤ Money saving through energy conservation

ഊർജ്ജ കിരൺ 2022 - 23
ശ്രീ നാരായണ കോളേജ് കണ്ണൂർ
ഡിസാർട്ട്മെന്റ് ഓഫ് ബോട്ടണി

ചുരുർ ചിത്ര സമർപ്പണം

എനർജി മാനേജ്മെന്റ് സെന്റർ കേരള, സി.ഇ.ഡി, എസ് എൻ കോളേജ്
എന്നിവർ ചേർന്ന് ഊർജ്ജ സംരക്ഷണ സന്ദേശം ഉൾക്കൊള്ളിച്ച് **ചുരുർ**
ചിത്ര സമർപ്പണം എളയാവൂർ സോണൽ ഓഫീസ് മതിലിൽ വിസ്തൃതം
ജ്ഞാപിക്കുന്നു.



ഉദ്ഘാടനം
ശ്രീമതി: **ഷാഹിന റൊയ്തീൻ**
(ചെയർപേഴ്സൺ, ടാക്സ് അഭിരുദി സ്പാന്റിംഗ് കമ്മിറ്റി)

2023 ഫെബ്രുവരി 28
വൈകുന്നേരം 4:30

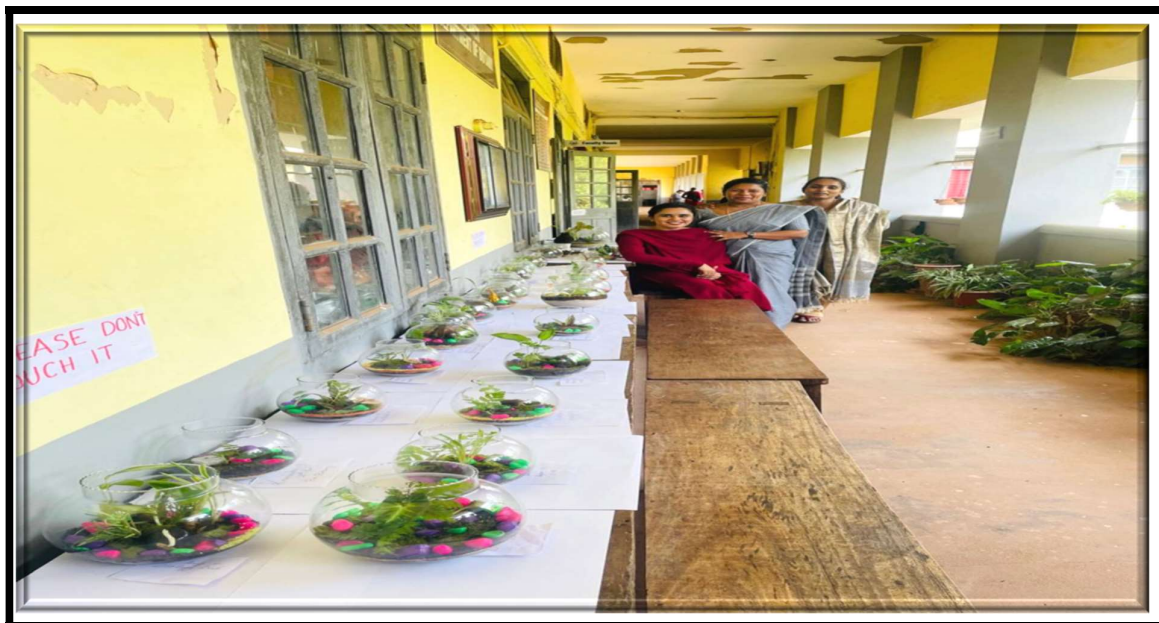








Environmental Promotional Activities – Mushroom Cultivation, Budding and graphting, Vermi Composting, Terrarium Kokkadama making practices for Local Peoples (Kudumbasree)









Sree Narayana College
Kannur

IN ASSOCIATION WITH
IQAC AND BIO-DIVERSITY CLUB
PRESENTS

WORKSHOP ON TERRARIUM & KOKADAMA MAKING

Time : 9:30 am to 12:30 pm
Venue: Botany department
Sree Narayana College,

Expert:
PRANAV M

- Former Bota
- Bliss garden
- Landscape a

For more details, c

Registration fee:
Student: Rs. 150/-
Faculty: Rs. 300/-





GPS Map
Elayavoor, Kerala, India
VC55+HJP, S N College Road, Elayavoor, Kerala 670007, India
Lat 11.85887°
Long 75.409088°
29/11/23 11:46 AM GMT +05:30



ബോട്ടണി അലൂംനി അസോസിയേഷൻ

ബഡ്ഡിംഗ് - ഗ്രാജ്ജിംഗ് - തലയറിംഗ്
സൗജന്യ പരിശീലന പരിപാടി

01.12.2022 വ്യാഴാഴ്ച
രാവിലെ 10 മണി

ഉദ്ഘാടനം:

ഡോ. കെ. അജയകുമാർ ,
പ്രിൻസിപ്പാൾ, കണ്ണൂർ
എസ്. എൻ. കോളേജ്

പരിശീലന ക്ലാസ്
നടക്കുന്നത്:

ഡോ. അഗ്രേഷ്യസ് തോമസ്,
അസി. പ്രൊഫസർ , പ്ലാന്റ് സയൻസ് വിഭാഗം,
എൻ. എ. എസ്. കോളേജ് കാഞ്ഞിരം

അന്വേഷണം:





**DEPARTMENT OF BOTANY
ORGANISES
IN ASSOCIATION WITH IQAC &
BIODIVERSITY CLUB**

PHOTO EXHIBITION OF MEDICINAL PLANTS



MONDAY, 30/09/20

10.00

Inauguration : Dr. [Name]
Principa

10.30

TALK ON
MEDICINAL PLANTS FOR

by Sri. Das
Traditional Ayurvedic Practitio

12.00

MEDICINAL PLANT DI







Sree Narayana College, Kannur

NAAC Re-accredited with A Grade, CGPA: 3.04

**POST GRADUATE AND RESEARCH
DEPARTMENT OF ZOOLOGY**

Certificate Course

2021-22

BASICS OF VERMICOMPOSTING



Register Now

Course Coordinator

DR. PRASAD. B. O.
Asst. Professor and Ho
Dept. of Zoology







EARTH HOUR
ഭൂമിക്കായി
ഭിന്നിക്കാതെ ഒന്നിച്ച്

മാർച്ച് 23, ശനിയാഴ്ച
രാത്രി 08.30 മുതൽ 09.30 വരെ
ഒരു മണിക്കൂർ
വൈദ്യുതി വിളക്കുകൾ അണക്കുക

Biodiversity Club
Department of Botany
Sree Narayana College Kannur



പരിസ്ഥിതി ദിനാചരണം നടത്തി



തോട്ടം : ലോകപരിസ്ഥിതി ദിനത്തിൽ എസ് എൻ കോളേജിലെ എൻ എസ് എസ് വളണ്ടിയർമാർ വിവിധ പരിപാടികളോടെ പരിസ്ഥിതി ദിനം ആചരിച്ചു. പ്രിൻസിപ്പൽ ഡോ.കെ.അജയകുമാർ, മാനേജ്മെന്റ് പ്രതിനിധി അരയാക്കണ്ടി സന്തോഷ്, ബാങ്ക് മാനേജർ ,പ്രോഗ്രാം ഓഫീസർമാരായ സുമേഷ് പി.സി. ഇ ശ്രീലത എന്നിവർ വൃക്ഷത്തെകൾ നടുന്നതിൽ പങ്കാളികളായി. തുടർന്ന്സെമിനാർഹാളിൽ നടത്തിയ പരിസ്ഥിതി സംരക്ഷണ ബോധവൽക്കരണ ക്ലാസ് കോളേജ് പ്രിൻസിപ്പൽ ഡോ.കെ.അജയകുമാർ ഉദ്ഘാടനം ചെയ്തു.