



ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL – 637 002

(Re-Accredited with 'B' Grade by NAAC & Affiliated to Periyar University, Salem)

CRITERION VII

7. INSTITUTIONAL VALUES AND BEST PRACTICES

7.1. INSTITUTIONAL VALUES AND SOCIAL RESPONSIBILITIES

7.1.3: Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

- Green audit / Environment audit
- Energy audit
- Clean and green campus initiatives
- Beyond the campus environmental promotion activities

Environment, Energy and Green Audit

7.1.3 QUALITY AUDIT ON ENVIRONMENT, ENERGY AND GREEN

EXECUTIVE SUMMARY

In every part of the world, nature offers a unique set of resources and opportunities to explore further resources. While some resources may be renewable and therefore able to be used indefinitely, such as solar and non-fossil energy sources, it is essential to ensure that all resources are used optimally and sustainably. It helps prevent wastage, reduces costs, and maintains a balanced and healthy natural environment.

As responsible individuals, we must protect and prevent the environment from being damaged. It has become a matter of great concern in today's world, and many educational institutions are taking action on their campuses to reduce their environmental impact. These actions can, directly and indirectly, affect the environment, including managing water, solid, and e-waste. Reducing power and energy usage can also help decrease government expenditures while promoting a more sustainable lifestyle.

In addition to these efforts, promoting afforestation and maintaining existing green spaces is essential to create an eco-friendly environment. It can help mitigate the negative effects of pollution and climate change, providing a habitat for wildlife and supporting the local ecosystem. By utilising our resources sustainably and responsibly and protecting and preserving the environment, we can help create a healthier, more sustainable world for future generations.

With environmental protection and resource conservation in mind, many educational institutions are conducting green audits to monitor and improve their usage of resources, including water, electricity, and other energy resources. As part of the National Assessment and Accreditation Council's assessment of colleges, a green, energy and environment audit was conducted to assess the institution's environmental impact. These audit focused on water and waste management, energy consumption, and promoting a green campus.

The college is actively engaged in various academic programs, and each department functions effectively to conduct its activities. The college also has adequate infrastructure, including communication, technology, power, and water supply. The campus also boasts rich and diverse ecological communities, performing various functions.

However, the activities conducted by the college, both directly and indirectly, can positively or negatively impact the environment. Therefore, an environmental audit was conducted to study the impact of these activities on the environment. This audit consisted of three components: green audit, energy audit, and environmental audit with a team of experts in this field conducting the assessment and providing recommendations based on their findings.

Educational institutions must recognise their environmental impact and take necessary steps to reduce it. Green, energy and environmental audits provide a valuable tool for monitoring and improving sustainability efforts, ensuring that the institution does its part to protect the environment and create a more sustainable future.

ABOUT THE COLLEGE

Arignar Anna Government College was established in 1968-69 and named after the former Chief Minister of Tamil Nadu, Arignar Anna. This college owes its inception to the unwavering efforts of Mr P. Muthusamy, BA, BT, (Ex. MLA) of Namakkal constituency, Mr. Chocklingam, the former Namakkal Revenue Divisional Officer, and a group of illustrious individuals from various fields of life. It was initially affiliated to the University of Madras and offered four courses, namely, PUC, B.Sc. (Maths), B.Sc. (Geography), and BA (English), and was temporarily housed at the Government High School (South), Namakkal. The college was later shifted to its permanent building located on the Namakkal – Mohanur Highways, about five kilometres away from Namakkal during 1970-71.

Currently, the college is affiliated with Periyar University, Salem, and follows the curriculum offered by the university, which is revised periodically. The college now offers 14 UG degrees, 11 PG degrees, 07 M.Phil. degrees, and 07 PhD degree courses, providing students with a wide range of opportunities to pursue their academic interests.

One of the most significant features of this college is its dedication to uplifting rural students by providing higher education to those who are socially marginalised and economically disadvantaged and who hail from rural areas. This initiative aligns with the college's commitment to promoting education and providing equal opportunities for all.

OBJECTIVES OF THE AUDIT

The objectives of the audit are to assess the college's environmental impact and identify opportunities for sustainable resource management. These objectives can be further elaborated as follows:

1. **Identification of Environmental Activities:** The first objective of the audit is to identify the various activities carried out in the college premises that impact the environment. This includes activities such as waste disposal, energy consumption, transportation, and water usage.
2. **Study of Environmental Quality:** The audit aims to assess the quality of the environment in the college premises, particularly air and water. It involves examining the pollution levels, checking for harmful *substances and evaluating the overall environmental health of the campus.*
3. **Determining Factors Affecting the Environment:** The audit also aims to ascertain the factors that significantly impact the environment. It includes studying the various sources of pollution, identifying the root causes of environmental degradation, and assessing the impact of human activities on the ecosystem.
4. **Analysis of Natural Resource Utilisation:** The audit aims to analyse the extent to which natural resources are being utilised in accordance with government policies. This includes evaluating the use of water, energy, and other natural resources and determining whether they are being used efficiently and sustainably.
5. **Study of Energy Sources and Consumption:** The audit aims to study the various sources of energy used in the college, including electricity, fuel, and renewable energy. It also involves analysing energy consumption patterns and identifying opportunities for reducing energy use.

6. **Optimisation of Energy Resources:** Based on the audit findings, recommendations will be made to optimise the utilisation of energy resources. This includes exploring alternative energy sources, implementing energy-efficient technologies and practices, and promoting sustainable energy consumption habits.
7. **Assessment of Flora and Fauna:** The audit aims to identify the various types of flora and fauna in the college premises and evaluate their environmental impact. It includes assessing the diversity and abundance of plant and animal species and identifying any threats to their survival.
8. **Suggesting Remedial Measures:** Based on the audit findings, suitable remedial measures will be recommended to optimise the utilisation of various resources such as water and energy. These may include implementing sustainable waste management practices, promoting water conservation measures, and adopting renewable energy sources.

METHODOLOGY

The audit team adopted a structured methodology to conduct the green audit. The methodology can be elaborated as follows:

Preparation of Pre-Audit Questions: Before commencing the audit, a set of pre-audit questions were prepared to guide the audit team. These questions were designed to cover various aspects of the college's environmental impact, such as waste management, energy consumption, water usage, and transportation.

Inspection of College Campus: The audit team then inspected the college campus on-site. The team experts carefully observed everything connected with the audit, including the buildings, facilities, equipment, and activities. They assessed the impact of these on the environment and evaluated the college's compliance with environmental regulations and policies.

Verification of Documents: Besides the on-site inspection, the audit team verified relevant documents related to the college's environmental impact. These documents may include permits, licenses, reports, and records related to waste management, water

usage, and energy consumption. The team scrutinised these documents to evaluate the college's compliance with relevant laws and regulations.

Discussions with Concerned Officers: The audit team also conducted discussions with the concerned officers, such as the college administration and environmental management staff. These discussions helped to gain insights into the college's environmental policies, practices, and challenges.

Data Analysis and Recommendations: Based on the on-site inspection, document verification, and discussions, the audit team analysed the data to identify areas of concern and opportunities for improvement. The team then recommended to the college administration how to optimise utilising natural resources, minimise waste and pollution, and promote sustainable practices.

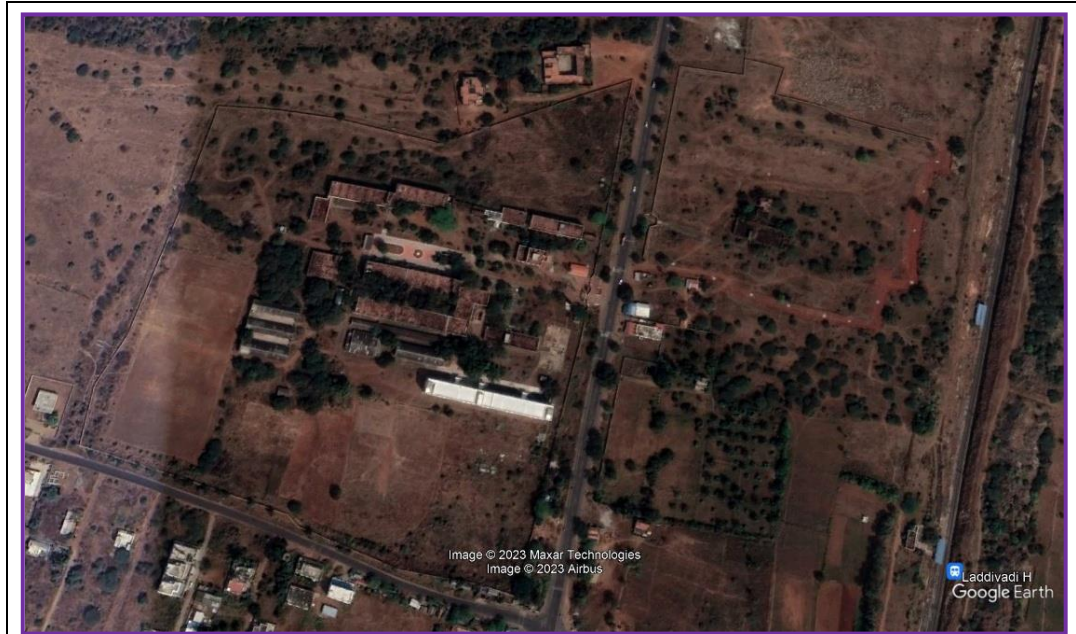
Overall, the methodology adopted by the audit team was comprehensive and rigorous, aiming to assess the college's environmental impact and recommend practical solutions for sustainable resource management.

FIELD VISIT

The green, energy and environmental audit team visited the college campus to evaluate the status of the green cover, water management, solid and liquid waste management, energy consumption and conservation practices and flora and fauna.

INTERACTION

The green, energy and environmental audit team interacted with the faculty members and the administrative level authorities about the activities of the college and their impact on the environment. They interacted to learn the strength of the green campus in terms of energy consumption and issues related to environmental quality. They also found the level of awareness among the college's stakeholders in maintaining a good environment.



College Map

WATER MANAGEMENT

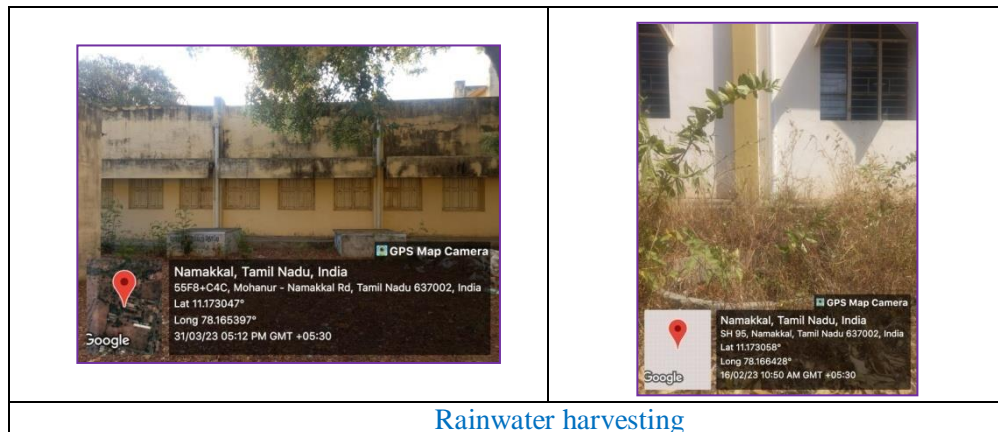
Since water has become one of the scarce resources, it is unavoidable to manage water usage effectively. There are several sources of water available on the campus. The study observed that the college's main sources of water received are from bore well water and the Cauvery river water. There is a big size water tank in the college campus where the Cauvery river water is stored. From this storage system, water is distributed to various buildings. Besides, open bore wells are available from which water is taken. The required amount of water is distributed daily with the help of pump sets. Water is used for drinking purposes, laboratory practicals, toilets and gardening of plants. The audit team examined that the college per day uses 15000 litres of water.



Bore wells water room

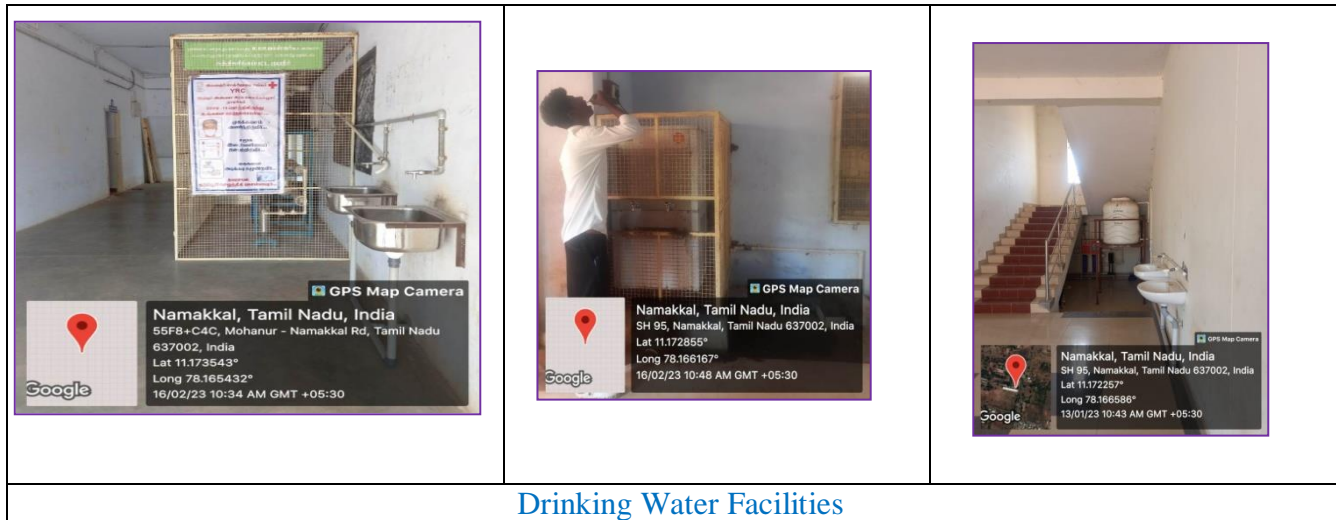
Rainwater harvesting system

In order to harvest rainwater, rainwater harvesting structures are available in every building. These rainwater harvesting structures enhance groundwater recharging, improving the groundwater level. Several water basins are erected on the college campus, and students use them during intervals. Every department has its own Reversible Osmosis (RO) system for the purpose of drinking water.



Drinking Water

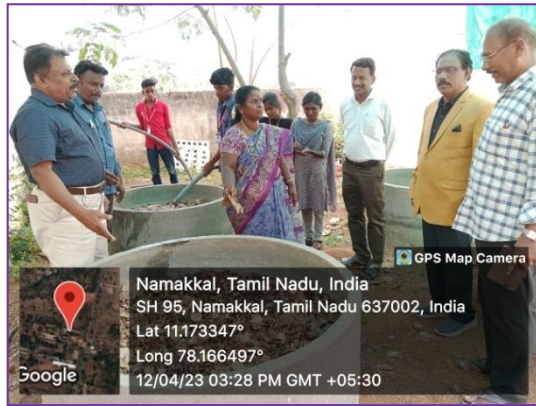
In order to meet the needs of drinking water of the students, the RO water plant is installed in the college campus. This drinking water is available on 3 buildings 9Administrative Building, Physics and Geography Block and MGR Building of the college. The students use them for safe drinking water.



SOLID AND LIQUID WASTE MANAGEMENT

There is an effective wastewater management system which the college is adopting. The wastewater from the laboratories, hostels, and canteen is streamlined and used for watering the garden. In addition to this, watering the trees and plants is done through open water pipes from time to time. Wastewater with chemicals is not used for watering the garden. Solid wastes such as papers, food, plastic, and glass, biodegradable, are collected daily. A team of scavengers are appointed for every building and collects the solid wastes daily. The dust bins are placed in the campus and in classrooms to collect these solid wastes. Students use these dust bins for putting the solid wastes. In canteen and hostels, waste bins are also placed to collect the solid wastes. Slogans against the wastage of food are put up in the notice boards and on walls wherever necessary. Nearby farmers collect the waste foods for feeding their cattle. Regarding e-waste management, the used electronic devices and pieces are repaired and reused. The other electronic materials are auctioned.





Environmental Audit Team Visit the Vermicompost Plant

Electronic waste Management

The e-waste materials such as cartridges of laser printers, life-ended monitors, keyboards and other parts of computers are collected and stored in a room. The possible items are repaired and reused. There is no big e-waste in the college campus, and it was found that there is a minimum quantity. The e-wastes are effectively managed to avoid the environmental hazards in the college campus.

ENERGY AUDIT

Energy audit is concerned with energy consumption, energy sources, energy monitoring, usage of electronic appliances, gages, and transportation. Energy consumption is an important aspect of the energy audit. The energy in the college campus is used for lighting, operating computers, printers, fans, running laboratory instruments, groundwater pumping and heating. The several sources of energy and their usage are assessed in the audit.

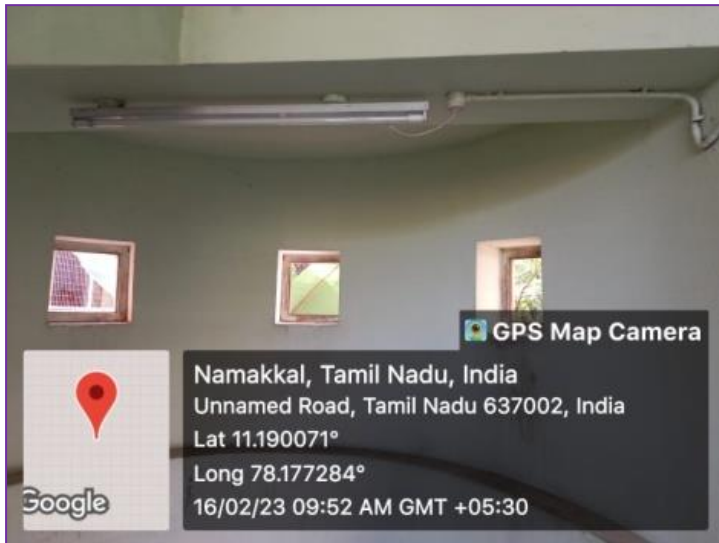
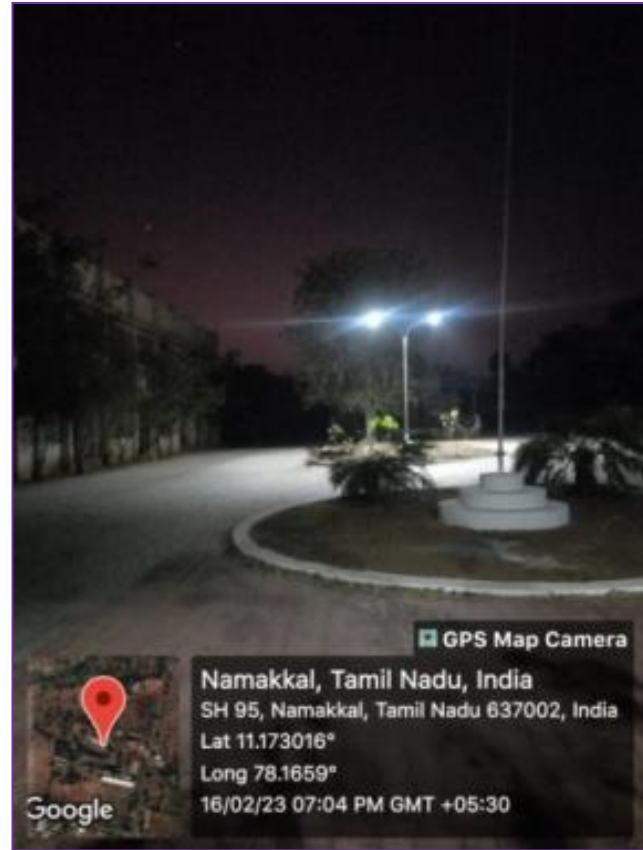
a. Electricity

As far as energy sources are concerned, electricity is the main energy source of the college. The Tamil Nādu Electricity Board, Namakkal unit supplies electricity to the campus. There are three major connections are available in the college campus. From these connections, electricity is distributed to all buildings. There is a transformer outside the college from which electricity is supplied to the college.

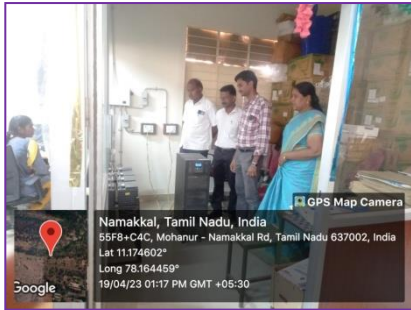
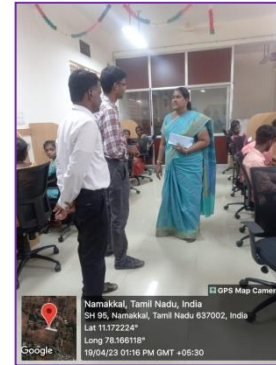
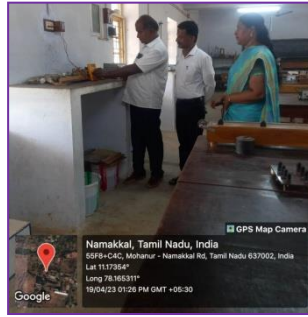
The total electricity is divided and diverted to the following buildings.

1. The main building and old library building
2. The science blocks
3. The New Library, Commerce and Economics buildings
4. The MGR Building

The energy audit is significant in identifying total energy consumption and deficiency in the physical facilities. We can save energy by identifying the gap between actual energy consumption and wastage.



LED light



Energy Audit Team visit the Departments

Energy Consumption Report

S.No.	Electric Appliances	Number	Total Power Consumption Per Day	Working Hours Per day	Total Working Days
1.	Street Light (LED)	30	30 Watts	11	365
2.	LED Bulbs	70	20 Watts	5	180
3.	Tube Lights	697	40 Watts	5	180
4.	Fan	603	80 Watts	5	180
5.	Computer	130	50 Watts	5	180
6.	Laptops	25	30 Watts	5	180
7.	Printer	20	740 Watts	5	180
8.	Xerox Machine	4	4000 Watts	5	180
9.	UPS	6	3kva	5	180
10.	Projector	15	1000 Watts	5	180
11.	AC	4	500 Watts	5	180
12.	Refrigerator	5	300 Watts	5	180
13.	Pump Motor	3	5hp, 3hp, 1hp	1	200
14.	RO System	2	500 Watts	2	180

Power Consumption with LED bulbs

S.No	Area	Power	Number
1	Office	20 W	7
2	Fine Arts Room	20 W	2
3	Office entrance and Warranta	20 W	5
4	Class Room 39	20 W	1
5	Tamil Dept. HOD Room	20 W	1
6	Physics Lab	20 W	15
7	Auditorium	20 W	22
8	Street Light	50 W	2
9	Main Road from Entrance	30 W	12
10	Main Road from Entrance	20 W	4
11	MGR Building	30 W	9
12	MGR Building	20 W	6

b. LPG Gas

All the science departments have their own laboratories and use LPG gas cylinders during practical periods. Every science department uses one cylinder weighing 14.5 kg of LPG gas annually. For the Chemistry department, it varies from three to four cylinders annually, depending upon the demand.

c. Wood

Wood is used in the college canteen along with the LPG cylinders. For making snacks and side dishes, wood is used. During peak hours, LPG gas and wood are used to manage the crowd in the college canteen.

The energy conservation measures adopted by the college are commendable. Here are some suggested corrections and enhancements to make the measures more effective:

- Shutting off electronic devices such as computers, printers, fans, and lights when they are not in use is a great start. To make it more effective, the college can also consider installing occupancy sensors that automatically turn off the lights and fans when there is no one in the room. Additionally, the college can educate and encourage the staff and students to unplug their devices when they are fully charged or unused for an extended period.
- Periodic checking of low- and high-voltage electricity when the electric motor is used, and the balancing mechanism is taken, is a good practice to ensure that the motors are running efficiently. However, the college can also consider installing energy-efficient motors and variable-speed drives that can reduce energy consumption by up to 60%.
- Replacing conventional types of lights with LED lights is an excellent energy conservation measure. LED lights use up to 80% less energy than traditional incandescent bulbs and can last up to 25 times longer. Additionally, the college can install daylight sensors that adjust the light output based on the natural light available in the room.
- Ensuring all the electricity consumable devices are switched off during nighttime and holidays is an essential energy-saving measure. However, the college can also consider installing a building management system that can control and monitor the

energy usage of the entire campus. This system can optimise the heating, ventilation, and air conditioning (HVAC) systems and lighting, reducing energy consumption and costs.

In conclusion, the college's energy conservation measures are a great start, and the enhancements suggested above can make them even more effective in reducing energy consumption and costs. The college can also continue to educate and encourage staff and students to adopt energy-efficient practices and behaviours.

Green Audit

The description of green audits and their benefits are mostly accurate. However, here are some suggested corrections and enhancements to improve the clarity and accuracy of the description:

The green audit is an evaluation process that institutions conduct to assess the impact of their activities on the campus environment. This audit determines the institution's impact on various environmental factors such as air quality, water quality, waste management, and soil health. The green audit helps institutions identify areas where they can reduce their environmental impact and adopt sustainable practices.

The documentation practices of green audits over a period of time help institutions to identify long-term environmental problems and track progress towards sustainability goals. By analysing the strengths, weaknesses, opportunities, and threats associated with the environment, institutions can develop effective strategies to address environmental challenges and improve their performance.

Through green audits, institutions can identify environmental problems and risks, such as pollution and resource depletion, and develop solutions to mitigate these issues. This audit also helps institutions set up a clear vision and mission for their environmental activities, which can guide their sustainability efforts and promote a culture of sustainability across the campus community.

Conducting a green audit is essential to creating a sustainable campus environment. By identifying areas where they can reduce their environmental impact and adopting sustainable practices, institutions can improve their environmental performance, reduce costs, and promote a healthier and more sustainable future.

Importance of Green Auditing

The main importance of the green audit are:

- Checking the institutional activities which consume more than the required resources
- Assessing the current level of utilisation of natural resources and checking whether it is optimum or not
- Regulating the activities towards the efficient utilisation of resources
- Evaluating the impact of climate change on the utilisation of resources
- Promoting awareness among the workers in the institution on environmental protection
- Setting up of standard benchmark for better environmental performance
- Developing and promoting environmental ethics and practices among the institution's stakeholders.

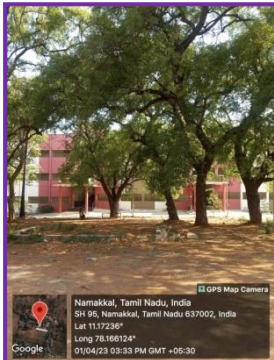
GREEN COVER

The college campus has varieties of trees and plants. Several species of trees and plants make the campus very green. They make the environment very clean, and the air quality is fine to breathe. The humidity and moisture vary according to season, and the average humidity and moisture in the college campus is ---- and -----, respectively. Regarding transportation, the college has no its own transportation and most of the students take buses to come to college. Therefore, there is no air pollution and there is no considerable emission of CO₂ in the environment in the college campus.

Plants on the Campus

Plant diversity is the most important feature which plays a vital role in the complexity of natural ecosystems. The present study examined the diversity of flowering plants in the Arignar Anna Govt. Arts College Campus, Namakkal, Tamil Nadu, and India, with the objectives of collecting the flowering plants from Arignar Anna Govt. Arts College Campus, identifying the collected plants with taxonomic characters using available floras and experts, arranging the species of the genus in alphabetical order and taking photographs from plants' natural habitats.

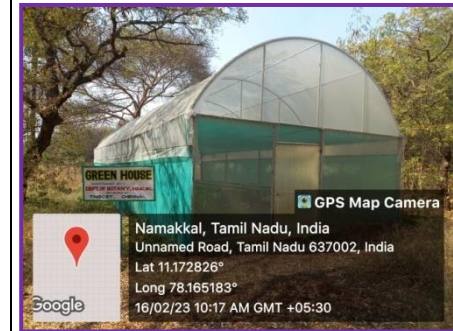
Plant diversity is the functional and structural unit of the biotic components of the ecosystem and is subjected to change due to the interaction of biotic and abiotic factors of the environment. Based on a field survey of Arignar Anna Govt Arts College Campus plants, we have recorded 74 genera and 117 species belonging to 48 angiosperm families. It was found that habit composed of 33 Trees, 17 Shrubs, 56 Herbs, 04 Climbers, 02 Creeper and 04 Twiners in the area.



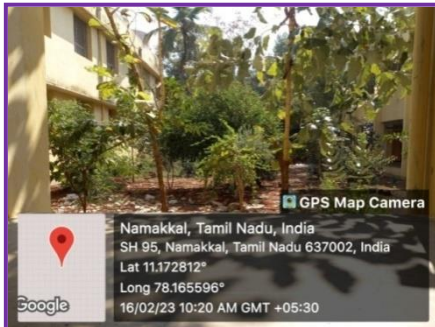
Trees in front of MGR Building



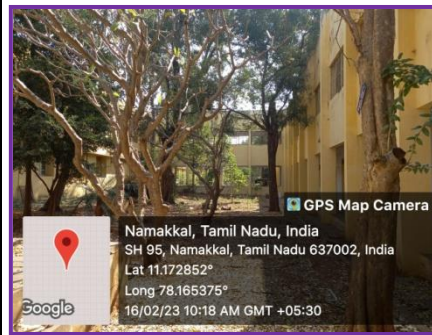
Trees in front of Department of Zoology



Green House



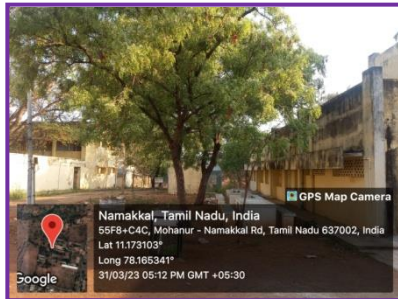
Trees and Shrub in front of Chemistry and Botany Block



Trees in front of Chemistry and Botany Block



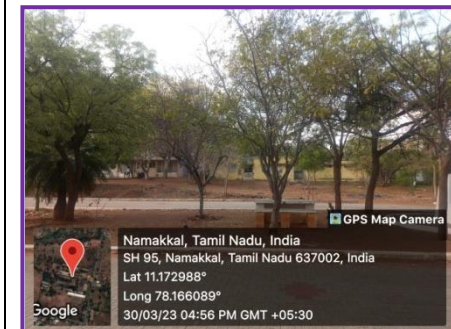
Near Physics and Geography Block



Green Sitting place with stone benches (Near General Library)



Green Sitting place with stone benches (Near Physics Block)



Green Sitting place with stone benches (Near Administrative Building)

There are several trees and plants available in the college campus. Their details are given in the following table.

Table 1. List of plants in the Arignar Anna Govt. Arts College Campus, Namakkal, Tamil Nadu

S. No.	Botanaical Name	Tamil Name	Family	Habit	Medicinal uses
1.	<i>Abrus precatorius</i> L.	Gundumani	Leguminosae	Twiner	precatorius is traditionally used to treat tetanus, and to prevent rabies. The plant is used in some traditional medicine to treat scratches and sores and wounds caused by dogs, cats and mice, and are also used with other ingredients to treat leucoderma. The leaves of the herb are used to cure fever, cough and cold.
2.	<i>Abutilon indicum</i> (L.) Sweet.	Thutthi	Malvaceae	Shurb	It has been extensively used as a traditional medicine as a laxative, emollient, analgesic, anti-diabetic, anti-inflammatory and blood tonic agent and also in the treatment of leprosy, urinary disease, jaundice, piles, relieving thirst, cleaning wounds and ulcers, vaginal infections, diarrhea, rheumatism, mumps
3.	<i>Acacia leucophloea</i> (Roxb.) Willd.	Velvaelam	Mimosoideae	Tree	Analgesic, anti-inflammatory, anti-viral and anti-bacterial properties of <i>A. leucophloea</i> stem bark are used to treat inflammatory conditions such as bronchial inflammation and coughing, biliousness of the skin and leucoderma.

4.	<i>Acalypha indica</i> L.	Kuppai maeni	Euphorbiaceae	Herb	The crushed fresh leaves are used for skin diseases.
5.	<i>Acanthospermum hispidum</i> DC	Kombumul	Asteraceae	Herb	the species is used in the treatment of gastrointestinal, respiratory disorders and has expectorant action.
6.	<i>Aerva lanata</i> (L.) Juss. ex Schult.	Ciru-pulai	Amaranthaceae	Herb	In traditional medicine the plant is used in cough, strangury (slow to be and painful discharge of urine), headache and urolithiasis.
7.	<i>Albizia amara</i> (Roxb.) Boivin	Usilai	Mimosaceae	Tree	The seeds are regarded as astringent and used in the treatment of piles, diarrhea and gonorrhoea. The flowers are used as a remedy for cough, ulcers, dandruff and malaria. The pharmaceutical compounds of seeds and leaves has potential broad spectrum of anticancer activity.
8.	<i>Albizia lebbek</i> (L.) Willd	Vagai	Mimosaceae	Tree	It is found all over India. Almost all parts of this plant are used for the treatment of ailments such as migraine, conjunctivitis, diarrhea, jaundice, skin problems, asthma
9.	<i>Aloe vera</i> (L.) Burm.f.	Katrazhai	Asphodelaceae	Herb	Aloe gel juices are taken internally for ulcers, gastritis, diabetes and arthritis. Gel is applied externally for skin diseases.
10.	<i>Andrographis echioides</i> (L.) Nees	Gopuram Tangi	Acanthaceae	Herb	Leaf and root paste used for snake bite.
11.	<i>Anisomeles indica</i> (L.) Kuntze	Indian Catmint	Lamiaceae	Herb	Traditional medicine to treat a variety of ailments,

					including dyspepsia, abdominal pain, colic, allergies, inflammation, and rheumatic arthritis.
12.	<i>Anisomeles malabarica</i> (L.) R.Br. ex Sims	Peithumbai	Lamiaceae	Shurb	<i>Anisomeles malabarica</i> is a medicinal plant which belongs to Lamiaceae family, is distributed in southern tropical and tropical regions of Asia . Ethno-botanically, the leaves of <i>A. malabarica</i> are used in dyspepsia, intermittent fever, colic, boils and tetanus.
13.	<i>Annona squamosa</i> L.	Seetha	Annonaceae	Shurb	The fruit is used to aid digestion and treat rheumatism and cancer.
14.	<i>Aristolochia bracteolata</i> Lam.	Aadu theendaappaalai	Aristolochiaceae	Herb	Paste made from leaves applied externally on the wound of snake bite.
15.	<i>Atalantia monophylla</i> (L.) Corr. Serr.	Kaattu naarthai	Rutaceae	Tree	A 'warm' oil obtained from the fruit is used in the treatment of chronic rheumatism.
16.	<i>Azadirachta indica</i> A. Juss.	Veppa maram	Meliaceae	Tree	Leaves ground with ginger applied externally for poisonous insect bites young leaves juice taken for stomach pain.
17.	<i>Bauhinia tomentosa</i> L.		<i>Caesalpinioideae</i>	Tree	<i>B. tomentosa</i> is used to treat some diseases including liver inflammation, abscess, tumors, wounds, and hyperlipidemia in ethnomedicines in Asia and Africa. Compounds like phytone, β -cubebene, β -caryophyllene, 3-O-methyl-d-glucose, and phthalic acid have been isolated from leaves of this plant species.

18.	<i>Borassus flabellifer</i> L.	Panai	Areaceae	Tree	The seeds are used in cough and pulmonary affections. Young roots used for dysentery and gonorrhoea.
19.	<i>Bursera penicillata</i> (Sesse & Moc.) Engl.		Burseraceae	Tree	used for incense, and other purposes such as the treatment of burns, headache, nosebleed, fever and stomach-ache and for predicting rain by its flowering
20.	<i>Calotropis gigantea</i> (L.) W. T. Aiton	Yerukku	Asclepiadaceae	Shurb	The plant is reported as effective in treating skin, digestive, respiratory, circulatory and neurological disorders and was used to treat fevers, elephantiasis, nausea, vomiting, and diarrhea. The milky juice of <i>Calotropis procera</i> was used against arthritis, cancer, and as an antidote for snake bite.
21.	<i>Calotropis procera</i> (Ait.) R.Br.	Vellerukku	Asclepiadaceae	Shurb	The leaves of <i>Calotropis procera</i> are said to be valuable as an antidote for snake bite, sinus fistula, rheumatism, mumps, burn injuries, and body pain. The leaves of <i>Calotropis procera</i> are also used to treat jaundice.
22.	<i>Cardiospermum halicacabum</i> L.	Modakkatthaan	Sapindaceae	Climber	The leaves used in the treatment of rheumatism and nervous diseases.
23.	<i>Casuarina equisetifolia</i> L.	Savukku	Casuarinaceae	Tree	The plant <i>Casuarina equisetifolia</i> belonging to the family Casuarinaceae, a tropical plant commonly called as horse tail in English, and sarugudu chettu in Telugu is used traditionally for

					the treatment of nervous disorders, acne, throat infections, stomach ulcer, constipation, cough, diabetes, diarrhoea, dysentery, ...
24.	<i>Catheranthus pucillus</i> (Murr.) G. Don.	Paalaich	Apocynaceae	Herb	<p>Plant is used in cancer and diabetes; root paste is used in septic wounds; root decoction is used in fever; leaves are used in menorrhagia; leaf juice is used in blood dysentery.</p> <p>The decoction of leaf is used for babies in gripping pain while the latex is useful in scabies.</p>
25.	<i>Catharanthus roseus</i> (L.) G. Don		Apocynaceae	Herb	The dried leaves powder mixed with honey is used as an anticancer Agent.
26.	<i>Centratherum punctatum</i> Cass.	Kattuchiragam	Asteraceae	Herb	Centratherum punctatum Cass., a herb belonging to the family Asteraceae has been traditionally used as a curative against diverse disorders like inflammation, tumor, depression, and hypertension.
27.	<i>Cissus quadrangularis</i> L.	Perandai	Vitaceae	Climber	Stem and Leaves paste is used to cure bone fracture and root paste used for gas trouble.
28.	<i>Cleome viscosa</i> L.	Naai vaelai	Capparadaceae	Herb	The leaves of Cleome Viscosa are applied externally to cure wounds and ulcers, ease rheumatism, and treat herpes infections by acting as an anti-irritant. Rheumatoid

					arthritis, gonorrhoea, diarrhoea, and dysentery are all treated with decoctions of <i>Cleome Viscosa</i> .
29.	<i>Clitoria ternatea</i> L.		Fabaceae	Twiner	It has been widely used in traditional medicine, particularly as a supplement to enhance cognitive functions and alleviate symptoms of numerous ailments including fever, inflammation, pain, and diabetes
30.	<i>Coccinia grandis</i> (L.) Voigt	Kovai	Cucurbitaceae	Climber	<i>Coccinia grandis</i> Linn. Voigt, also known as <i>Coccinia indica</i> belongs to the family Cucurbitaceae. It is extensively used in traditional medicine for the treatment of leprosy, jaundice, asthma, bronchitis, skin eruptions, burns, tongue sores, earache, indigestion, eye infections, nausea, insect bites, and fever.
31.	<i>Cocos nucifera</i> L.	Thenga	Arecaceae	Tree	used to treat diarrhea. In Papua New Guinea, the leaves and roots of young plants are chewed as treatment for diarrhea and stomachaches. coconut oil is used to prevent hair loss and coconut water is used to treat renal disease.
32.	<i>Commelina benghalensis</i> L.	Kaanavazhai	Commelinaceae	Herb	<i>Commelina benghalensis</i> is a perennial herb, used in the traditional medicine system for the treatment of various ailments like leprosy, sore throat, ophthalmia, burns, pain and

					infammation and also used as de pressant, demulcent, emollient and laxative.
33.	<i>Corchorus trilocularis</i> L.	Talakkaiipoondu	Tiliaceae	Herb	The species name trilocularis comes from the three-chambered ovary. Young tender leaves are cooked and eaten. Medicinal uses: The leaves are used as a plaster to reduce swellings. The seeds are used in the treatment of gripe and nausea.
34.	<i>Costus spicatus</i> (Jacq.) Sw.		Costaceae	Herb	treat inflammation, pain and other pathological manifestations.
35.	<i>Crossandra infundibuliformis</i> (L.) Nees	Kanagambaram	Acanthaceae	Shurb	The leaf extracts of <i>Crossandra</i> <i>infundibuliformis</i> show aphrodisiac, anti- inflammatory and analgesic properties. The leaf extracts also reported for wound healing, antimicrobial, antioxidant, antisolar and larvicidal activities. Due to its medicinal value, this plant is used to treat various ailments.
36.	<i>Cuscuta reflexa</i> Roxb.	Kodiyagundal	Cuscutaceae	Herb	<i>Cuscuta reflexa</i> has been traditionally used as an antiemetic. Additionally, it has been used in various herbal formulations for the treatment of emesis. So far, there is no scientific evidence of the plant extract as antiemetic.
37.	<i>Cycas circinalis</i> L.	Sala panai	Cycadaceae	Tree	The pollen is narcotic. The bark and the seeds are ground to a paste with oil and used as a

					poultice on sores and swellings. The juice of tender leaves is useful in the treatment of flatulence and vomiting
38.	<i>Cymbopogon citratus</i> (DC.) Stapf	Karppurappul	Poaceae	Herb	The plant is used as a fragrance and flavoring agent and in folk medicine as an antispasmodic, hypotensive, anticonvulsant, analgesic, antiemetic, antitussive, antirheumatic, antiseptic and treatment for nervous and gastrointestinal disorders and fevers.
39.	<i>Cynodon dactylon</i> (L.) Pers.	Arugampul	Poaceae	Herb	The plant has been long used in the traditional medicines to treat various ailments such as anasarca, cancer, convulsions, cough, cramps, diarrhea, dropsy, dysentery, epilepsy, headache, hemorrhage, hypertension, hysteria, measles, rubella, snakebite, sores, stones, tumors, urogenital disorders, warts and wounds.
40.	<i>Delonix elata</i> (L) Gamble	Vaatha naaraayanan	Caesalpinioideae	Tree	Juice of young twig is taken orally along with water twice a day to get relief from cold.
41.	<i>Delonix regia</i> (Boj. Ex Hook.) Raf.	Neruppu Konari	Caesalpinioideae	Tree	The <i>Delonix regia</i> tree is endowed with numerous medicinal properties. It has antibacterial, anti-inflammatory, antifungal, antimicrobial, antioxidant, antimalarial, gastroprotective, and cardioprotective properties, as

					well as wound healing properties. The leaves of the Delonix regia tree are anti-diabetic.
42.	<i>Euphorbia heterophylla</i> L.	Paal Perukki	Euphorbiaceae	Herb	Euphorbia heterophylla is widely used in traditional African medicine and elsewhere in tropical countries. A decoction or infusion of the stems and fresh or dried leaves is taken as a purgative and laxative to treat stomach-ache and constipation, and to expel intestinal worms.
43.	<i>Eurycoma longifolia</i> Jack	Longjack	Simaroubaceae	Shurb	the roots extract of E. longifolia are used as folk medicine for sexual dysfunction, aging, malaria, cancer, diabetes, anxiety, aches, constipation, exercise recovery, fever, increased energy, increased strength, leukemia, osteoporosis, stress, syphilis and glandular swelling.
44.	<i>Evolvulus alsinoides</i> L.	Vishnukranti	Convolvulaceae	Herb	<p>The whole plant is used in form of decoction in nervous debility and loss of memory.</p> <p>The plant is also useful as blood purifier and in bleeding piles.</p> <p>The fresh flowers with sugar are eaten as a brain tonic.</p> <p>The leaves are made into cigarettes and smoked in chronic bronchitis and asthma.</p>
45.	<i>Ficus benghalensis</i> L.	Aalamaram	Moraceae	Tree	Milky juice is used for toothache, piles and gonorrhoea. The fruits

					used for ulcers, vaginal complaints, fever and leprosy.
46.	<i>Ficus religiosa</i> L.	Arasa maram	Moraceae	Tree	Traditional medicine has utilized <i>Ficus religiosa</i> to treat asthma, blood sugar level, diarrhea, brain disorder, gastrointestinal troubles, anti-inflammatory activity, infectious activity, and sexual concerns.
47.	<i>Gardenia resinifera</i> Roth	Kambili Picin	Rubiaceae	Tree	External uses It is antimicrobial, wound healing and analgesic. It is useful in toothache and teething problems of children (robbing latex to the gums). and anthelmintic.
48.	<i>Gliricidia sepium</i> (Jacq.) Walp.	Seemai Konrai	Papilionoideae	Tree	<i>Gliricidia sepium</i> is the topic of much research due to its numerous traditional applications, which include treating coughs, asthma, curing urticaria, rash, burns, scabies, dermatitis, acting as an antipruritic on the skin, and treating bacterial and protozoal infections.
49.	<i>Heliotropium indicum</i>	Thael Kodukku	Boraginaceae	Herb	The leaf juice is used to treat the stings and boils of scorpions and insect bites. On the other hand, the boiled juice with castor oil is used to treat mad dog bite infections . Moreover, <i>H. indicum</i> is also used to treat rheumatism, ulcer, venereal disease, fever, sore throat, and sores in the rectum.
50.	<i>Heliotropium scabrum</i> Retz.		Boraginaceae	Herb	The leaf juice is used to treat the

					stings and boils of scorpions and insect bites. On the other hand, the boiled juice with castor oil is used to treat mad dog bite infections
51.	<i>Hibiscus rosa-sinensis</i> L.	Cembarutti	Malvaceae	Shurb	Paste made from flowers and leaves mixed with coconut oil and used for Hair tonic.
52.	<i>Hibiscus sabdariffa</i> L.	Cempuliccaikki rai	Malvaceae	Shurb	As a tea, it may be beneficial for high blood pressure. The fruit acids in <i>Hibiscus sabdariffa</i> might work like a laxative. Other chemicals in <i>Hibiscus sabdariffa</i> might be able to lower blood pressure, reduce levels of sugar and fats in the blood, reduce swelling, and work like antibiotics.
53.	<i>Hiptage benghalensis</i> (L.) Kurz		Malpighiaceae	Shurb	<i>Hiptage benghalensis</i> is cooling, vulnerary, astringent, expectorant, cardi tonic, anti-inflammatory, insecticidal, wound healing and used in burning sensation of the body, wound, pruritus, foul ulcers, scabies, leprosy, skin diseases, cough, asthma, cardiac debility, rheumatism, hyperdipsia,
54.	<i>Hybanthus enneaspermus</i> (L.) F. Muell	Orilai thaamarai	Violaceae	Herb	<i>Hybanthus enneaspermus</i> (L.) F. Muell is a perennial medicinal herb which is used in traditional medicine for treating diarrhoea, urinary infections, leucorrhoea, dysuria, inflammation, cholera and sterility.
55.	<i>Hydrocotyle vulgaris</i> L.		Apiaceae	Creeper	<i>H. vulgaris</i> has been known as a

					plant with medicinal attributes. Several species under genus Hydrocotyle possess mild diuretic, anti-rheumatic, dermatological, peripheral vasodilator and vulnerary properties.
56.	<i>Indigofera linnaei</i> Ali.	Cheppunerunjil	Fabaceae	Herb	It is a small trailing, much branched annual or biennial herb, distributed throughout India. The juice of the plant is used as antiscorbutic and diuretic, for burns and epilepsy.
57.	<i>Indigofera tinctoria</i> L.	Auri	Fabaceae	Herb	It is used to treat a wide range of disorders such as epilepsy, nervous disorders, asthma, bronchitis, fever, stomach pain, liver diseases, kidney and spleen diseases, skin conditions, wounds sores, hemorrhoids, gonorrhea, syphilis, snake bites, etc. The plant is also used as cover crop and green manure.
58.	<i>Ipomoea quamoclit</i> L.	Mayil Maanikam	Convolvulaceae	Twiner	The plant is considered cooling and purgative; used in chest pain, pounded leaves are used as remedy for bleeding piles and carbuncles.
59.	<i>Jatropha grandiflora</i> Nutt.		Euphorbiaceae	Shurb	Traditionally this plant is used for treating dysentery and diarrhea.
60.	<i>Justicia tranquebariensis</i> Roxb.		Acanthaceae	Herb	Infusions of <i>Justicia tranquebariensis</i> have been used for poisonous bites. Leaves of <i>Justicia adhatoda</i> are used

					traditionally for chest diseases, rheumatism, fever, asthma, pneumonia, tuberculosis, expectorant, diuretic, antispasmodic, antiseptic and to reduce swelling.
61.	<i>Kalanchoe pinnata</i> (Lam.) Pers.	Runakkalli	Crassulaceae	Herb	These plants are employed in traditional medicine to treat gastric ulcers, respiratory infections, boils, wounds, and rheumatoid arthritis
62.	<i>Kyllinga triceps</i> Rottb.		Cyperaceae	Herb	<i>Kyllinga triceps</i> are diuretic, stomachic, and anthelmintic herbs that can treat fistulas, pustules, tumours, stomach, and intestinal diseases
63.	<i>Leucas aspera</i> (Willd.) Linn.		Lamiaceae	Herb	Leaf juice taken internally for Stomach ailments, fever, Asthma and headache.
64.	<i>Madhuca longifolia</i> L.	Iluppai	<i>Sapotaceae</i>	Tree	The astringent bark extract is used for dental-related problems, rheumatism, and diabetes. <i>Madhuca longifolia</i> flowers seasonally and produces green-fleshy fruits containing three to four seeds.
65.	<i>Merremia tridentata</i> (L.) Hall. fil.	Avvaiyar koondhal	Convolvulaceae	Twiner	astringent, aphrodisiac, laxative and bitter properties. The aerial parts are used in treating haemorrhoids, swellings, rheumatic affections and urinary infections.
66.	<i>Millingtonia hortensis</i> L. fil.		<i>Bignoniaceae</i>	Tree	Flower buds are used in the treatment of asthma, sinusitis, cholagogue and tonic. The

					flowers are used in rituals. The flowers are added to tobacco for smoking as treatment for throat ailments. Stem also having great medicinal value using as lung tonic and cough diseases.
67.	<i>Moringa oleifera</i> Lam	Murungai	Moringaceae	Tree	<i>Moringa oleifera</i> plays an important role in protecting the liver from damage, oxidation and toxicity due to the high concentrations of polyphenols in its leaves and flowers. <i>Moringa oleifera</i> oil can also restore liver enzymes to normal levels, reducing oxidative stress and increasing protein content in the liver.
68.	<i>Mollugo pentaphylla</i> L.	Parpaatam	Aizoaceae	Herb	The decoction of different parts of this plant such as the leaves, roots, seed, bark, fruit, flowers and immature pods used for cardiac and circulatory stimulants, to cure wounds, colds and diabetes.
69.	<i>Morinda tinctoria</i> Roxb.	Nuna	Rubiaceae	Tree	<i>Morinda citrifolia</i> , commonly called Indian mulberry or Achi, is used in Ayurveda. The fruit and its juice have been used in the treatment of diabetes, heart troubles and high blood pressure. <i>Morinda</i> fruit is rich in Vitamin C and beta-carotene, which is used to enhance immunity.
70.	<i>Musa paradisiaca</i> L.	Vaazhai	Musaceae	Herb	Stem and Spike are boiled and taken internally for kidney

					trouble.
71.	<i>Nerium oleander</i>	Alari	Apocynaceae	Shurb	Oleander has traditionally been used in the treatment of cardiac illness, asthma, diabetes mellitus, corns, scabies, cancer, and epilepsy, and in wound healing as an antibacterial/antimicrobial. However, limited quality clinical trials are available to support these uses.
72.	<i>Ocimum canum</i> Sims		Lamiaceae	Herb	The plant shows a pungent, aromatic flavor and is commonly cultivated for culinary purposes. <i>O. canum</i> is used specially for treating various types of diseases and lowering blood glucose and also treats cold, fever, parasitic infestations on the body and inflammation of joints and headaches
73.	<i>Ocimum tenuiflorum</i> L.	Thulasi	Lamiaceae	Herb	Juice of leaves is taken orally in empty stomach curing cold.
74.	<i>Oldenlandia umbellata</i> L.	Impural	Rubiaceae	Herb	This plant is well known in Siddha Medicine for its styptic property. It is also a drug that can be administered for bronchial asthma, as a decoction of the entire plant, a decoction made from its root and liquorice
75.	<i>Orthosiphon spiralis</i> (Lour.) Merr.		Lamiaceae	Herb	<i>Orthosiphon stamineus</i> is used traditionally to treat gout, arthritis, and inflammatory related conditions. The in vitro anti-inflammatory effects of the plant

					have been scientifically investigated.
76.	<i>Pavonia zeylanica</i> (L.) Cav.	Sittramuttti	Malvaceae	Shurb	Leadwort is a potent medicinal agent used in the treatment of stubborn chronic rheumatoid arthritis, skin diseases and tumorous growths as recommended by Ayurveda. It also finds its use in correcting chronic menstrual disorders, viral warts and chronic diseases of nervous system.
77.	<i>Pedaliium murex</i> L.	Yanai nerunji	Pedaliaceae	Herb	Indian system of medicine recommends medicinal plants as alternative medicine for the treatment of kidney stone and also several diseases. Based on traditional healers, the plant <i>Pedaliium murex</i> L. was used for the dissolution and prevention of kidney stone formation
78.	<i>Peltophorum pterocarpum</i> (DC.) Baker ex Heyne	Iyal vaagai	<i>Caesalpinioideae</i>	Tree	The plant is used in different parts of the world for the treatment of several ailments like stomatitis, insomnia, skin troubles, constipation, ringworm, insomnia, dysentery, muscular pains, sores, and skin disorders and is the source of a diverse kind of chemical constituents such as aliphatic alcohols, fatty acids
79.	<i>Peristrophe bicalyculata</i> (Retz.) Nees		Acanthaceae	Shurb	The herb is used for its anti-bacterial property (tuberculostatic), snake poison, in

					bone fracture, sprain, fever, cold, cough and for ear and eye treatments.
80.	<i>Perotis indica</i> (L.) Kuntze		Poaceae	Herb	Snakebites and bronchitis
81.	<i>Phyllanthus emblica</i> L.	Nelli	Euphorbiaceae	Tree	All parts of the plant are used for medicinal purposes, especially the fruit, which has been used in Ayurveda as a potent rasayana and in traditional medicine for the treatment of diarrhea, jaundice, and inflammation.
82.	<i>Piper betle</i> L.	Vettrilai	Piperaceae	Creeper	The betel leaves are mainly used as mouth freshener and is also well known for curing many communicable and non-communicable diseases like cold, cough, bronchial asthma, rheumatism, stomachalgia and used to treat other diseases like bad breath, boils and abscesses, conjunctivitis, constipation, swelling of gums, cuts ...
83.	<i>Plumeria alba</i> L.	Seemai alari	Apocynaceae	Tree	From the leaves, bark, and flowers, are commonly used to manage bacterial, fungal, and viral infections such as herpes, scabies, and fungal infections. The constituents of the <i>P. alba</i> plant have shown promising antihelmintic, antipyretic, and antirheumatic properties.
84.	<i>Polycarpaea corymbosa</i> (L.) Lam.	Nilaisedachi	Caryophyllaceae	Herb	Leaves, flower heads of <i>P. corymbosa</i> are used in reducing fever; anti-inflammatory and as a poultice for boils and other

					swellings; antidote for snakebite, leaves were reported to possess potent antioxidant property and are used for treatments of jaundice, demulcent and astringent in Indian folk medicine.
85.	<i>Polyalthia longifolia</i> (Sonn.) Thwaites	Asogam	Annonaceae	Tree	In traditional and indigenous systems of medicine, <i>Polyalthia longifolia</i> has been commonly used in the treatment of fever, helminthiasis, diabetes and various cardiac problems.
86.	<i>Portulaca oleracea</i> L.	Vazhukkaikeerai	Portulacaceae	Herb	<i>Portulaca oleracea</i> has been used as a folk medicine in many countries, acting as a febrifuge, antiseptic, vermifuge, and so forth. It exhibits a wide range of pharmacological effects, including antibacterial, antiulcerogenic, anti-inflammatory, antioxidant, and wound-healing properties.
87.	<i>Rhynchosia capitata</i> (Roth) DC.		Leguminosae	Climber	<i>Rhynchosia minima</i> root, a folk herbal medicine in southern China, is used to relieve itch and swelling.
88.	<i>Rhynchosia minima</i> (L.)DC.		Fabaceae	Herb	<i>Rhynchosia minima</i> root, a folk herbal medicine in southern China, is used to relieve itch and swelling.
89.	<i>Ruellia patula</i> Jacq.		Acanthaceae	Herb	In folk medicine, <i>R. patula</i> Jacq. was used in the treatment of gonorrhoea, syphilis, eye sore, renal infection, cough, wounds,

					scalds, toothache, stomachache and kidney stones
90.	<i>Sansevieria hyacinthoides</i> (L.) Druce	Snake Plant	Dracaenaceae	Herb	Rhizomes and leaves of <i>Sansevieria hyacinthoides</i> are used medicinally. It is a popular medicine for the treatment of ear infection, earache and toothache. It is also used traditionally to treat multiple ailments such as haemorrhoids, ulcers, intestinal worms, stomach disorders and diarrhoea.
91.	<i>Senna auriculata</i> (L.)Roxb.	Aavaram	Fabaceae	Shurb	The root is used in decoctions against fevers, diabetes, diseases of urinary system and constipation. The leaves have laxative properties. The dried flowers and flower buds are used as a substitute for tea in case of diabetes patients. It is also believed to improve the complexion.
92.	<i>Sesamum alatum</i> Thonn.	Ellu	Pedaliaceae	Herb	The seeds are occasionally cooked separately as a relish or boiled with pumpkin leaves and served with a staple food. The seed produces an edible oil, and is used as an aphrodisiac and to cure diarrhoea and other intestinal disorders.
93.	<i>Sesamum laciniatum</i> Klein ex Willd.	Kattu Ellu	Pedaliaceae	Herb	Whole plant used as laxatives. Paste applied locally.
94.	<i>Sida acuta</i> Burm. f.	Ariva mookku keerai	Malvaceae	Herb	In Indian traditional medicine, the root of <i>Sida acuta</i> is extensively used as a stomachic, diaphoretic

					and antipyretic. It is regarded as cooling, astringent, tonic and useful in treating nervous and urinary diseases.
95.	<i>Sida cordifolia</i> L.	Nilatutthi	Malvaceae	Herb	is used to treat bronchial asthma, cold and flu, chills, lack of perspiration, head ache, nasal congestion, aching joints and bones, cough and wheezing, and edema.
96.	<i>Sida rhombifolia</i> L.		Malvaceae	Herb	The plant has been widely used as traditional remedies for diarrhea, malarial, gastrointestinal dysentery, fevers, asthma and inflammation. <i>Sida</i> spp. have been proven scientifically to exhibit antibacterial
97.	<i>Spermacoce ocymoides</i> Burm.f.		Rubiaceae	Herb	The major species among them is <i>Spermacoce hispida</i> L., which is locally known as 'Madanaghanti'. The leaves <i>S. hispida</i> are reported to be used in treating conjunctivitis, haemorrhoids, gallstones and to relieve headache
98.	<i>Spilanthes calva</i> DC.	Palvalipoondu	Asteraceae	Herb	It is recognized in traditional medicine throughout Asia and South America for a variety of properties including anti-inflammatory, diuretic, and aphrodisiac effects. The leaves are used as food sources. The flowers of <i>Spilanthes</i> have earned it the name "toothache plant" for their numbing and pain-relieving effects.

99.	<i>Sterculia foetida</i> L.	Peenaari	Sterculiaceae	Tree	<i>Sterculia foetida</i> has been used traditionally as a medicine for its wound healing, antimicrobial, antidiabetic, antioxidant, antimicrobial and antiinflammatory properties. However, scientific studies on its medicinal properties are limited and its potential health benefits are not medically proven
100.	<i>Striga angustifolia</i> (D. Don) C.J. Saldanha		<i>Scrophulariaceae</i>	Herb	<i>Striga angustifolia</i> was carried out. It is a parasitic weed that is often seen growing in maize fields. However, despite its parasitic nature, it has several important medicinal properties such as anticancer, anti-microbial, etc., that can be channelled productively.
101.	<i>Syzygium jambolanum</i> DC	Naaval	Myrtaceae	Tree	Jambolan is widely used in folk medicine for diabetes. It is also used by mouth for gas (flatulence), swelling (inflammation) of the stomach (gastritis), constipation, diarrhea, and other conditions. Jambolan is sometimes used for sore throat, and applied directly to the skin for skin ulcers.
102.	<i>Tabebuia rosea</i> (Bertol.) DC.	Pink Tecoma Tree	Bignoniaceae	Tree	A decoction of the flowers, leaves and roots has been used to reduce fevers and pain, cause sweating, to treat tonsil inflammation and various other disorders. Among the various active phytochemicals

					in the tree is lapachol, a natural organic compound isolated from various other Tabebuia species.
103.	<i>Tamarindus indica</i> L.	Puliya maram	<i>Caesalpinioideae</i>	Tree	<i>Tamarindus indica</i> ; which is one of the highly commercialized medicinal plants is known for its potent anti-inflammatory activities. 7, 8 This tropical tree has been used to treat inflammation, stomach pain, throat pain, and rheumatism in traditional medicine.
104.	<i>Tecoma stans</i> (L.) Juss. ex Kunth	Manjarali	Bignoniaceae	Shurb	Pharmacologically <i>Tecoma stans</i> flower is traditionally used for many ailments including cancer, diabetes and arthritis. <i>Tecoma stans</i> , also shows antioxidant, wound healing, antispasmodic, antiproliferative, anti-inflammatory, antimicrobial, antifungal and cytotoxic properties.
105.	<i>Tectona grandis</i> L.f.	Thaekku	Lamiaceae	Tree	The plant has been used by traditional healers from time immemorial. Some of the mentioned traditional used in the literature are laxative, sedative, in treatment of piles, dysentery, leukoderma, anti-inflammatory, in bronchitis, urinary and liver related troubles, as hair promoter and useful in scabies.
106.	<i>Tephrosia purpurea</i> (L.) Pers.		Leguminosae	Herb	They have been used to treat fever, inflammation, swelling, and various skin disorders. The

					seeds of the Tephrosia Purpurea have analgesic, anti-inflammatory, and anti-fungal properties. They have been used to treat various liver, menstrual, and stomach disorders.
107.	<i>Thespesia populnea (L.) Soland. ex Correa</i>	Puvarasu	Malvaceae	Tree	<i>Thespesia populnea</i> Sol. ex Correa (Malvaceae) is commonly known as “Indian tulip tree”. The plant has been used as an astringent, antibacterial, anti-inflammatory, antinociceptive and hepatoprotective in Indian system of traditional medicine.
108.	<i>Tradescantia pallida (Rose) D.R.Hunt</i>		Commelinaceae	Herb	<i>Tradescantia pallida</i> belongs to the family Commelinaceae, also called purple queen. It is an ornamental plant and exhibits several important traditional medicinal properties. Hence, it is conventionally utilized as anti-inflammatory and antitoxic for improving blood circulation
109.	<i>Tribulus terrestris L.</i>	Nerinjimul	Zygophyllaceae	Herb	It is used in traditional medicine for chest pain, heart problems, dizziness, skin and eye disorders, to expel kidney stones, and as a diuretic and tonic. <i>Tribulus</i> is also marketed as a dietary supplement to improve sexual function and for body building due to the belief that it acts like testosterone in the body.
110.	<i>Tridax procumbens L.</i>	Vettukayapoodu	Asteraceae	Herb	<i>Tridax procumbens L.</i> is a medicinal plant and used as a

					drink to treat bronchial catarrh, diarrhea, dysentery and liver diseases. In this study, we evaluated the potential use of <i>T. procumbens</i> to treat hyperuricemia, oxidative stress, and bacterial infection.
111.	<i>Trichodesma indicum</i> (L.) R. Br.	Kaasi Thumbae	<i>Boraginaceae</i>	Herb	<i>Trichodesma indicum</i> is used in Indian system of medicine to cure for fever and diseases of eye and ear. The plant is used to treat inflammation and joint disorders as an emollient, anodyne, febrifuge, carminative, depurative and pectoral. The leaves of the plant are used to treat cancer
112.	<i>Turnera ulmifolia</i> L.	Yellow Alder	<i>Passifloraceae</i>	Shurb	In traditional medicine in South America and the West Indies, a tea made from the leaves of this species is used to treat gastrointestinal problems (constipation, diarrhoea), colds and flu, vascular diseases (heart palpitations), menstrual cramps, and dermatological issues.
113.	<i>Vernonia albicans</i> DC.		<i>Asteraceae</i>	Herb	Western Ghats <i>Vernonia</i> is used for treatment of filariasis and eye infections by tribal people.
114.	<i>Vicoa indica</i> (L.) DC.	Mukuttipundu	<i>Asteraceae</i>	Herb	Some species such as <i>Vicoa indica</i> have used in folk medicine, in the Himalayas. The roots were used to treat kidney troubles and the leaves were used for stomach problems.

115.	<i>Wrightia tinctoria</i> R.Br.	Paalai	Apocynaceae	Tree	Wrightia tinctoria has been assigned to have good analgesic, anti-inflammatory, anthelmintic, antiulcer, antidiabetic, anticancer, antipyretic activities and also effective in the treatment of psoriasis.
116.	<i>Ziziphus mauritiana</i> Lam.	Illandhai	Rhamnaceae	Tree	Ziziphus mauritiana is a beneficial fruit in India since ancient times. It was mentioned in Yajurveda . In traditional medication, it is used to treat various diseases such as heartburn biliousness, biliousness, astringency, scabies, diuretic, and nausea.

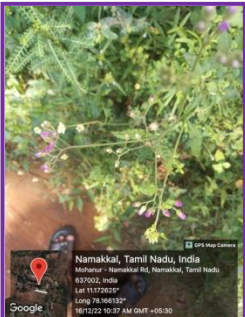
Palte 1. Selected plants in the Arignar Anna Govt. Arts College Campus, Namakkal, Tamil Nadu

		
<p><i>Aerva lanata</i> (L.) Juss. ex Schult. (Amaranthaceae)</p>	<p><i>Albizia amara</i> (Roxb.) Boivin (Mimosaceae)</p>	<p><i>Aloe vera</i> (L.) Burm.f. (Asphodelaceae)</p>
		
<p><i>Andrographis echinoides</i> (L.) Nees (Acanthaceae)</p>	<p><i>Anisomeles indica</i> (L.) Kuntze (Lamiaceae)</p>	<p><i>Azadirachta indica</i> A. Juss. (Meliaceae)</p>
		
<p><i>Calotropis gigantea</i> (L.) W. T. Aiton (Asclepiadaceae)</p>	<p><i>Catharanthus roseus</i> (L.) G. Don (Apocynaceae)</p>	<p><i>Cycas circinalis</i> L. (Cycadaceae)</p>
		
<p><i>Delonix elata</i> (L) Gamble (Caesalpinioideae)</p>	<p><i>Delonix regia</i> (Boj. Ex Hook.) Raf. (Caesalpinioideae)</p>	<p><i>Evolvulus alsinoides</i> L. (Convolvulaceae)</p>

Palte 2. Selected plants in the Arignar Anna Govt. Arts College Campus, Namakkal, Tamil Nadu

		
<p><i>Indigofera linnaei</i> Ali. (Fabaceae)</p>	<p><i>Madhuca longifolia</i> L. (Sapotaceae)</p>	<p><i>Nerium oleander</i> (Apocynaceae)</p>
		
<p><i>Plumeria alba</i> L. (Apocynaceae)</p>	<p><i>Portulaca oleracea</i> L. (Portulacaceae)</p>	<p><i>Sesamum laciniatum</i> Klein ex Willd. (Pedaliaceae)</p>
		
<p><i>Sida acuta</i> Burm. f. (Malvaceae)</p>	<p><i>Sterculia foetida</i> L. (Sterculiaceae)</p>	<p><i>Tabebuia rosea</i> (Bertol.) DC. (Bignoniaceae)</p>
		
<p><i>Tecoma stans</i> (L.) Juss. ex Kunth (Bignoniaceae)</p>	<p><i>Tectona grandis</i> L.f. (Lamiaceae)</p>	<p><i>Trichodesma indicum</i> (L.) R. Br. (Boraginaceae)</p>

Palte 3. Selected plants in the Arignar Anna Govt. Arts College Campus, Namakkal, Tamil Nadu

	
<p><i>Vernonia albicans</i> DC. (Asteraceae)</p>	<p><i>Vicoa indica</i> (L.) DC. (Asteraceae)</p>

		
<p>Namakkal District Forest Office Team Vist our College Campus</p>		

	
<p>Green Audit Team Vist our College Campus</p>	

Table 2. List of Birds in the Arignar Anna Govt. Arts College Campus, Namakkal, Tamil Nadu

S. No.	Zoological Name	Common Name	Family
1.	<i>Acridotheres tristis</i>	Myna	Sturnidae
2.	<i>Aegithina tiphia</i>	Common Iora	Corvidae
3.	<i>Ardeola grayii</i>	Indian Pond Heron Or Paddy Bird	Ardeidae
4.	<i>Argya striata</i>	Jungle Babbler	Leiothrichidae
5.	<i>Bubulcus ibis</i>	<i>Cattle Egret</i>	Ardeidae
6.	<i>Cecropis daurica</i>	Red-rumped Swallow	Hirundinidae
7.	<i>Chloropsis jerdoni</i>	Jerdon's leafbird	Chloropseidae
8.	<i>Cinnyris asiaticus</i>	Purple Sunbird	Nectariniidae
9.	<i>Corvus splendens</i>	House Crow	Corvidae
10.	<i>Dicrurus macrocerus</i>	Black Drongo	Corvidae
11.	<i>Merops orientalis</i>	Small Green Bee-Eater	Meropidae
12.	<i>Passer domesticus</i>	House Sparrow	Passeridae
13.	<i>Pavio cristatus</i>	Peacock	Phasianidae
14.	<i>Psittacula krameri</i>	Rose-ringed Parakeet	Psittacidae
15.	<i>Pycnonotus jocosus</i>	Red-whiskered Bulbul	Pycnonotidae
16.	<i>Saxicola caprata</i>	Pied Buschat	Musciapidae
17.	<i>Turdoides affinis</i>	Yellow-billed Babbler	Leiothrichidae
18.	<i>Turdoides caudatus</i>	Common Babbler	Sylviidae
19.	<i>Upupa epops</i>	Hoopoe	Upupidae

Palte 4. Selected Birds in the Arignar Anna Govt. Arts College Campus, Namakkal, Tamil Nadu

		
<p><i>Acridotheres tristis</i> (Sturnidae)</p>	<p><i>Ardeola grayii</i> (Ardeidae)</p>	<p><i>Argya striata</i> (Leiothrichidae)</p>
		
<p><i>Cecropis daurica</i> (Hirundinidae)</p>	<p><i>Corvus splendens</i> (Corvidae)</p>	<p><i>Merops orientalis</i> (Meropidae)</p>
		
<p><i>Passer domesticus</i> (Passeridae)</p>	<p><i>Povio cristatus</i> (Phasianidae)</p>	<p><i>Pycnonotus jocosus</i> (Pycnonotidae)</p>

Table 3. List of Butterflies available in the Arignar Anna Govt. Arts College Campus, Namakkal, Tamil Nadu

S. No.	Zoological Name	Common Name
1.	<i>Troides minos</i>	Southern birdwing
2.	<i>Junonia coenia</i>	Common buckeye
3.	<i>Limenitis archipus</i>	Viceroy butterfly
4.	<i>Danaus plexippus</i>	Monarch butterfly
5.	<i>Byasa polyeuctes</i>	Common windmill
6.	<i>Pachliopta aristolochiae</i>	Common rose

From the scientific studies carried out on the biodiversity of indicator species like butterflies and ants on the college campus and for the number and varieties of plants and animals on the campus, it was understood that the campus has a rich biodiversity index.

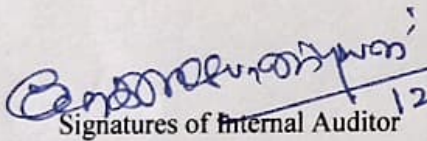
Conclusions

1. Biodegradable wastes are decomposed in vermicompost as burning is prohibited.
2. The consumption of electricity is reduced as LED lights are used in some buildings.
3. Use of bicycle and public buses are encouraged so carbon emission can be reduced significantly.
4. Waste water is used for growing plants. Rain water harvesting improves the ground water level.
5. No single use plastic bags on the campus. Alternatives like banana leaf or other natural leaves are used.
6. Biodiversity of flora and fauna has increased.
7. Herbal garden has medicinal plants that are used in Indian Systems of Medicines like Ayurveda, Siddha, Unnani and Naturopathy.
8. Diversity of Birds, Butterflies and ant is high.

Environmental Audit Recommendation

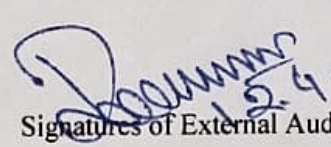
Based on the environmental audit, the experts of audit team suggested the following recommendations.

1. The environmental audit should be conducted every year to review the environmental damages if any and it would be useful to avoid further damages in future.
2. A separate Environmental Awareness Committee can be set up to regularly monitor environmental events and to create environmental awareness among the staff and students.
3. Air quality assessment can be carried out.
4. Reusing technologies can be applied.
5. Vermicompost can be made on a large scale.

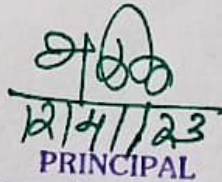

12/04/2023
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12/4/23
PRINCIPAL

Aringnar Anna Government
Arts College,
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Energy Audit Recommendation

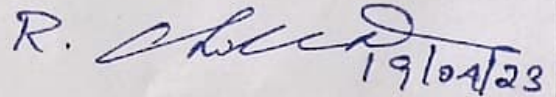
Based on the energy audit, the experts of audit team suggested the following recommendations.

1. A separate transformer should be erected on the college campus to regulate the electricity supply.
2. It is recommended that the college administration has to support and encourage the use of renewable energy sources such as solar energy, etc.
3. Total shifting to LED lights is hereby recommended to save electricity.
4. Old Window air conditioner to be changed to Inverter Split air conditioner for energy saving purpose.



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N.K.R.GOV.T. ARTS COLLEGE FOR WOMEN,
NAMAKKAL.



PRINCIPAL
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D.O. Code : CI-103.

Green Audit Recommendation

Based on the green audit, the experts of audit team suggested the following recommendations.

1. The drip irrigation system can be extended to other irrigated areas. This minimizes the water waste, especially during the summer season and water scarcity.
2. To reduce paper waste, all communications and circulars must be sent to the respective departments and staff via e-mail or WhatsApp.
3. The endemic and RET plant species should be maintained on campus.
4. A waste land development scheme can be permitted in unused areas.
5. The establishment of a good lawn landscape and encourage students to cultivate a larger number of plants on the campus.
6. The debris and dried leaves can be used to produce organic manure.

Signatures of Internal Auditor

HEAD

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