GREEN AUDIT - 2022

SREE SANKARA COLLEGE

KALADY, ERNAKULAM

KERALA

EXECUTED BY

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PREFACE

Every institution should be imparting knowledge about the campus environment and its surroundings through activities that follows the principles of sustainability. Hence an evaluation is needed to understand where it stands in the path to be an environment friendly, talent nurturing educational institution. This Green Audit was done with the aim to assess and rate the sustainable nature of the campus. The college vision is "to enlighten and empower women in rural and suburban society and enable them to act as agents of social transformation and acquire knowledge of self and surroundings and to make the world a better place". And in the **social goals**, it is written as **"to make the students aware of the pressing global issues and the moral responsibility to handover to the coming generation an eco-friendly life style and an earth free from pollution, filth, bigotry and corruption".** It was observed by us from the students' participation during the green audit.

This report is compiled by the BEE certified energy auditor and GRIHA Certified auditor along with the project engineers who are experienced in the field of energy, environment and management. The student volunteers made a mammoth contribution with data collection and preparing an initial skeleton for the report.

ACKNOWLEDGEMENTS

We express our sincere gratitude to the M/s Sree Sankara College Kalady for giving us an opportunity to carry out the project of Green Audit. We are extremely thankful to all the staffs for their support to carry out the studies and for input data, and measurements related to the project of Green audit.

1	Dr. Suresh	Principal
2	Dr. Preethi Nair	IQAC Coordinator

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

GREEN AUDIT TEAM

1. **Mr. Santhosh A**
   Registered Energy Auditor of Bureau of Energy Efficiency (BEE – Govt. of India)
   Accredited Energy Auditor No – EA 7597

2. **Mr. Ashok KMP Energy Manager, GRIHA Certified Professional**

Yours faithfully

ATHUL ENERGY CONSULTANTS PVT LTD THRISSUR 680 020

Managing Director
Athul Energy Consultants Pvt Ltd

GREEN AUDIT SUMMARY

- Sree Sankara College taken considerable effort for maintaining the green and sustainable campus.
- All the varieties of living eco systems such as trees of varies varieties of gardens (Zodiac Garden, Oxygen Park, Herbal Garden Birds Club area, etc.). 103 species of tree of 742 numbers are in the college.
- College is well maintaining Oxygen Park, Silent places in colleges which will reduce the academic stresses.
- Display boards are placed in the Oxygen Park, Silent zone, Zodiac garden area etc to be done.
- Staff and student's collaboration of NSS, Bhoomithrasena is held responsible for maintenance of greenery inculcating a sustainable culture among the student's community.
- By recognizing the importance of making youth compassionate towards students and hence maintaining open play ground in college?
- Well placed rainwater collection tanks is provided in the college

Suggestions for improvement

- Sub metering system for water consumption to be done in each areas of main usage
- Garden library can be set in the college nearer to the entrance of existing library with rain canopy. Periodicals and newspapers can be kept in this rotating type garden library.
- Vegetable garden to be created in the college

GENERAL DETAILS

The general details of the M/s Sree Sankara College Kalady given below in table.

Table 1 GENERAL DETAILS

Sl. No:	Particulars	Details
1	Name of the College	Sree Sankara College, Kalady
2	Address	Sree Sankara College Sankar Nagar, Mattoor, Kalady P.O., Ernakulam – 683 574
3	Contact Person	Dr. Mini K D, Ph: 9605055445
4	E-mail ID	info@ssc.edu.in
5	Web site	www.ssc.edu.in
6	Type of Building	Educational Institution
7	Annual Working Days	180
8	Working Hours	9AM - 4PM
9	No: of students enrolled	2421
10	No : of teaching staff	133
11	No: of non-teaching staff	21
12	Total campus area	18 acres
13	Total Built Up area (M^2)	19078 Sq. m
14	No: of courses	Aided College UG 17 AND Self finance 03, PG Aided- 07 and Self-finance -03, PHD -05
	No: of Departments	22
15	Herbal Garden	Yes
16	Vegetable garden	No
18	Birds club	Yes
19	Star Garden	Yes
20	Silent Area	Yes
21	Oxygen park	Yes
24	Play Grounds	Football ground ,Basketball court,
25	Auditorium	01 numbers
26	Rain water harvesting	Yes

ABOUT COLLEGE

Sree Sankara College, Kalady was founded in the year 1954 by Swami Agamananda, a social reformer and a foresighted scholar of Sri Ramakrishna Advaita Ashram. The institution was established with a view to perpetuating the memory and doctrines of the great saint and philosopher, Adi Sankaracharya and to nurture his birth place as a cultural citadel. The foundation stone was laid on 28 August, 1953 by His Highness the Maharaja of Travancore in the presence of The Maharaja of Cochin and several other distinguished personalities. The Sree Sankara College Association was formed in July 1954.

The vision & mission of the organization was to establish a Centre of Higher Learning with two major objectives —dissemination of knowledge in tune with a university curriculum and fostering community development.

The institution was raised to the status of a First Grade College in 1956. It is affiliated to the Mahatma Gandhi University and is included under sec.2 (f) and 12 (B) of the UGC act, 1956.

In June 1960, the patronage of the college became vested in His Holiness the Jagadguru Sri Sri Sankaracharya Swamigal of Dakshinamnaya. Currently, Sri Sri Bharathi Theertha Mahaswamigal, of Sringeri Mutt, steers the administration through a Board of Directors with Sri. K. Anand as the Managing Director.

The college has done consistently well in Curricular and Co-curricular activities. The National Assessment and Accreditation Council (NAAC), accredited the college by B++ Grade with 2.80 CGPA on a four-point scale. The Departments of Economics, Commerce, Sanskrit and Microbiology are approved Research Centres under the Mahatma Gandhi University.

VISION

To achieve excellence in higher Education, with a stress on, creativity, skill development, employability, personal values with social

MISSION

To mould good citizens with ingenuity, adaptability, social commitment and ethical values who can provide innovative leadership in all walks of life.

Figure 1 COLLEGE CAMPUS

GREEN AUDIT

The whole world is on the road to a sustainable development, and the environment conservation is the top priority among the list as every human activity has its effect on their surroundings, which is the environment. Hence be it a house, a commercial building, an industrial building, or any other construction will disturb the balance of the environment. It is very important to do a detailed study about the effects on the environment. This is conducted under the name of *Green Audit*, which can be defined as *the official examination of the effects a company or other organization has on the environment, especially the damage that it causes*. The objectives of the green audit can be listed as follows:

- Including participants from every section of the organization in the auditing process.
- Understanding the environment by drawing a simple sketch of the total area.
- Identifying the activities in the premises and listing them.
- Calculating the resource consumption like the land and water.
- Assessing the waste management and disposal.
- Study the energy usage pattern.
- Identify the good practices.
- Suggest the viable solutions to improve the sustainable nature of the organization.
- Compile the report with the above-mentioned details.
- Conduct a walkthrough audit to check the suggestions implemented by the institution and suggest for further improvements
- Verify all the points with actual measurements is it is meeting the performance and gave suggestions for improvement

CAMPUS ENVIRONMENT

The environment in and around the college campus plays an important part in maintaining a healthy atmosphere in nurturing talents. Trees are the major source of the oxygen we breathe, and receiver of the carbon dioxide we exhale. The sustainability of an ecosystem depends on the number of plants and trees in and around the surroundings. The open space in the college is used for gardening and maintain a Butterfly garden , Zodiac Garden fish pond, large open garden, peace garden etc. Ultimately the campus is maintaining natural equilibrium with trees, birds and cattle's and water bodies along with human interactions.

FIGURE 2: COLLEGE CAMPUS

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

SUSTAINABLE CONSTRUCTION OF BUILDINGS

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

Sree Sankara College Kaladi has developed an ecological design in their buildings and adopted minimum negative impact on ecosystem. Their approach to the constructional activities consciously is to conserve energy and ecology and avoid the adverse effects of ecological damage.

Sree Sankara College constructed the building to optimum utilisation of land and classrooms and with abundant light and natural ventilation. Maximum day light ingression and natural ventilation increases the indoor air quality and avoid the sick building syndrome.

Major Courses in the College

Programmes	Courses
Aided College	
UG	BA - Sanskrit, English, Hindi, Economics, History, BSc - Mathematics, Statistics, Physics, Chemistry, Botany, Zoology, B Com - Finance, Taxation and Computer applications
PG	Sanskrit -Vadantha, Economics, English-Literature, M Com –Taxation, MSc - Microbiology, Applied Chemistry and Physics.
PhD	Economics, Microbiology, English, Chemistry and Sanskrit.
Self-financing	
UG	BSc - Microbiology and Bio technology B Voc.- Renewable energy Management ,Broad casting and Journalism, Tourism and Hospitality
PG	MSc - Bio Technology, and Environmental science

Departments in the college

B-Voc, Bio chemistry, Sanskrit, English, Malayalam ,Hindi, Physics, Chemistry, Mathematics, Environmental Science, History, Economics, Botany, Zoology, Politics, Computer Science, Microbiology, Computer Science, Bio technology, and Physical Education.

1. HERBAL GARDEN

The literal meaning of Ayurveda is "science of life," because ancient Indian system of health care focused on views of man and his illness. It has been pointed out that the positive health means metabolically well-balanced human beings. Ayurveda is also called the "science of longevity" because it offers a complete system to live a long healthy life. It is an interactive system that is user-friendly and educational. It teaches the patient to become responsible and self-empowered. It is a system for empowerment, a system of freedom, and long life. A significant part of knowledge and tradition is currently being eroded due to modernization, acculturation and availability of alternatives. Therefore, it is urgent to inculcate young minds to realize the fascinating knowledge and tradition associated with these resources, and help them understand the immense potentials the Kerala medicinal plants possess for the future.

The "Promoting Herbal Gardens in Schools and colleges" has been a fun-filled learning activity for the students where they got the opportunity to learn about the medicinal plants by actually planting the medicinal herbs and watching them grow in their gardens, and by exploring information about them from various sources.

The task of making the garden itself has been enriching in terms of making students realize the importance of teamwork such as detailed planning, and allocation of tasks within a team. For the teachers, herbal garden project has been useful in terms of ease with which they could integrate the concept with other subject matter activities, such as writing essays, poems and stories, making posters, drawing and painting, making herbariums, and even preparing food recipe using some of the culinary herbs students have planted in their gardens. Kerala Government is also making lot of initiatives to developing and inculcating the herbal gardens in schools and colleges.

In Sacred Heart management planted, nurtured varieties of herbs in its college campus in all possible areas without any specified location. Hence the college in total is herbal garden.

2. VEGETABLE GARDEN

Gardens are a wonderful way to use the college campus as a classroom, reconnect students with the natural world and the true source of their food, and teach them valuable gardening and agriculture concepts and skills that integrate with several subjects, such as math, science, art, health and physical education, and social studies, as well as several educational goals, including personal and social responsibility.They gain self-confidence and a sense of "capableness" along with new skills and knowledge in food growing — soon-to-be-vital for the 21st century students become more fit and healthy as they spend more time active in the outdoors and start choosing healthy foods over junk food.

Recommendation

Sree Sankara College is to initiate a vegetable garden in its premises

3. SILENT PLACE OR KUTTIVANAM

Sree Sankara College developed an untouched and protected version of forest in their premises. This is maintain in the form of old tradition such as Kavu, the small untouched forest which we can able to see in most parts Kerala. Kavu is maintained as forest areas that human beings are mostly prohibited and considered a sacred place in the Kerala.

Figure 3 KUTTIVANAM

4. BUTTERFLY GARDEN

Butterflies are important because they are its own right but also quality of life indicators. Butterflies are part of Life on Earth and an important component of its rich biodiversity. The following are the main reasons for conserving butterflies. They are having an intrinsic value and it in the flag ship of the nature conservation. Have an Aesthetic value it portrays the essence of nature and beauty of peace. Butter lies have an educational value as the transformation from egg to caterpillar to chrysalis is one of the wonders of nature. This has a scientific value as the important indicator climate change. Eco system value is Butterflies have been widely used by ecologists as model organisms to study the impact of habitat loss and fragmentation. People enjoy seeing butterflies both around their homes and in the countryside which improves the mental and social health of peoples. People enjoy seeing butterflies both around their homes and in the countryside.

5. OXYGEN PARK

Care taken by the college to have Plantation of oxygen rich plants .The greenery has remained useful in developing Oxygen Park in the college. Trees release oxygen when they use energy from sunlight to make glucose from carbon dioxide and water. Like all plants, trees also use oxygen when they split glucose back down to release energy to power their metabolisms. Averaged over a 24-hour period, they produce more oxygen than they use up; otherwise there would be no net gain in growth

Figure 4 OXYGEN PARK

The findings in the report shows that college perform fairly well in waste management issues and taken considerable efforts in a responsible manner. During audit and the conversations with the college team, we observed that Sree Sankara College done various approaches in the past few years to performing well to sustainable environment. Even though there is space for further improvement that mentioned in the executive summary, the college is a good example for the minimisation of environment issues in the existing conditions.

6. ZODIAC FOREST (NAKSHRAVANAM)

In Vedic astrology, the zodiac is divided into 27 *nakshatras* or stars. An individual is born under a particular star, known as his or her birth star. From ancient times, particular trees have been associated with birth stars. The concept of a Nakshatra Vanam involves the planting of these trees in a grove and nurturing them, to help develop a place of sanctity. Gardening can provide students with hands-on learning opportunities while increasing environmental awareness and vital experience in problem-solving.

Sree Sankara College developed a star garden. Most of the star related trees are in developing stage in the garden. The details are given below.

TABLE 2: ZODIAC PLANTS

Sl No:	Star Name	Tree name	Botanical Name
1	Aswathy	Kanjiram	*Strychnos nux-vomica*)
2	Bharani	Nelli	*Emblica officinalis*)
3	Karthika	Aathi	Ficus racemosa
4	Rohini	Njaval	*Syzygium cumini*)
5	Makayiram	Karngali	*Acacia catechu*)
6	Thiruvathira	Karimaram	*Diospyros ebenum*)
7	Punartham	Mula	*Bambusa bambos*)
8	Pooyam	Arayal	*Ficus religiosa*)
9	Ayilyam	Nangu	*Mesua ferrea*)
10	Makam	Plassu	*Butea monosperma*)
11	Uthram	Ithi	*Ficus tinctoria*)
12	Atham	Ambazham	Spondias pinnata
13	Chithira	Koovalam	Aegle marmelos
14	Chothi	Nerr maruthu	Terminalia arjuna
15	Visakham	Vayam Kaitha	Flacourtia jangomas
16	Anizham	Elanji	*Mimusops elengi*)
17	Triketta	Vetti	Aporusa lindleyana
18	Moolam	Vella Pine	Vateria indica
19	Pooradam	Vanchi	Salix tetrasperma
20	Uthradam	Plavu	Artocarpus heterophyllus
21	Thiruvonam	Erukku	Calotropis gigantea
22	Avittam	Vanni	Prosopis juliflora
23	Chathayam	Kadambu	Anthocephalus cadamba
24	Pooruttathy	Mavu	Mangifera indica
25	Uthrattathy	Karimbana	Borassus flabellifer
26	Revathi	Elippa	Madhuca longifolia

Every students and staffs are having a birth star which is related to a tree, animal and bird in nature. Gardens are a wonderful way to use the college campus as a classroom, reconnect students with the natural world

Figure 5 ZODIAC GARDEN

7. LIST OF TREES IN THE CAMPUS

Trees release oxygen when they use energy from sunlight to make glucose from carbon dioxide and water. Like all plants, trees also use oxygen when they split glucose back down to release energy to power their metabolisms. Averaged over a 24-hour period, they produce more oxygen than they use up; otherwise there would be no net gain in growth. Sree Sankara College Kaladi have 103varieties plants. The Sree Sankara College Kaladi have742 numbers of major trees are lace in this campus.

TABLE 3: LIST OF TREES

BIRDS CLUB

Sl.no.	Vernacular Name of Trees	Botanical Name	
1	Vaka maram	Delonix regia	1
2	Eeta	Dchlandra travancorica	
3	Rain Tree	Samanea saman	1
3	Aanapana	Caryota urens	3
4	Vayanna	Cinnamomum verum	1
5	Mahagani	Swietenia macrophycia	1
6	Thanni	Terminlia bellirica	2
7	Vatta	Macaranga peltata	3
8	Anjili	Artocarpus hirsutus	1
9	Kurumulaku	Piper nigram	
10	Kanjiram	Strychnos nuxvomica	1
11	Theghu	Cocos nucifera	2
12	Sarpagandhi	Rauvolfia serpentina	
13	Vatta	Macaranga peltata	3
14	Aanapana	Caryota urens	3
15	Anjili	Artocarpus hirsutus	1
16	Mullan Pazham	Ziiziphus oenoplia	1
17	Parom	Ficus racemosa	1
18	Unjal valli	Oonual valli	1
19	Mula	Bambusoidea	
20	Manjadi	Adenanthera pavonina	1
21	Mavu	Mangifera indica	1
22	Mahagani	Swietenia macrophycia	50
23	Njaval	Syzigium cumini	3
24	Pappaya	Carica pappaya	1
	Total		82

FRONT SIDE BIRD CLUB (NAKSHTHRAVANAM)

Sl.no.	Name of Trees	Botanical Name	No: of trees
1	Peeli vaka	Albizia chinensis	22
2	Njaval	Syzigium cumini	1
3	Peral	Ficus benghalensis	1
3	Neermaruthu	Terminalia arjuna	2
4	Nelli	Phyllanthus emblica	1
5	Koovalam	Aegle marmelos	1
6	Mula	Bambusoidea	1
7	Arayal	Ficus religiosa	1
8	Ambazham	Spondias mombin	1
9	Ithi	Ficus benjamina	1
10	Peral	Ficus benghalensis	1
11	Erukku	Calotropis giganta	1
12	Vella Pine	Pinus strobus	1
13	Kadambu	Neolamackia cadamba	1
14	Karimaram	Diospyros ebenum	1
15	Nelli	Phyllanthus emblica	1
16	Mavu	Mangifera indica	1
17	Seethapazham	Annona squamosa	1
18	Anachuvadi	Elephantopus scabeb	1
19	Arayal	Ficus religiosa	1
20	Plavu	Artocarpus heterophyllus	1
21	vayamkadha	Lagerstroemia speciosa	1
22	Karimaram	Diospyros ebenum	1
23	Lubi	Flacourtia jangomas	1
24	Pappaya	Carica pappaya	1
25	Manimaruthu	Terminalia arjuna	1
26	Chara konna	Peltophorus pterocarpus	1
27	Poovaka	Deconix regia	1
28	Neermaruthu	Terminalia arjuna	2
29	Mavu	Mangifera indica	2
30	Koovalam	Aegle marmelos	1
31	Karinochi	Vitex trifolia	1
32	Pera	Psidium guajava	1
33	Ithi	Ficus benjamina	1
34	Punna	Calophyllum inophyllum	2
35	Mylanchi	Lawsonia inermis	2
36	Nelli	Phyllanthus emblica	2
37	Aryaveepu	Azadirachta indica	1

38	Ughu	Pongamia pinnata	1
39	Elipla	Madhuca longifolia	1
40	Rain Tree	Samanea saman	1
41	Chamba	Syzigium samarangense	1
42	Krimpana	Borassus flabellifer	1
43	Vazha	Musa paradisiaca	
	Total		70

INDOOR SPORTS FRONT SIDE

Sl.no.	Name of Trees	Botanical Name	No: of trees
1	Royal Palm	Roystonea regia	21
2	Mahagani	Swietenia macrophycia	1
3	Rambutan	Nephelium lappaceum	1
3	Tulsi	Ocimum tenuiflorum	Lumsum
4	Mula	Bambusoidea	1
5	Budha mula	Bamboosa ventricosa	1
6	Mutta Pazham	Pouteria campechisns	1
7	Kanikonna	Cassia fistula	1
8	Nelli	Phyllanthus emblica	1
9	Chara konna	Peltophorus pterocarpus	1
10	Njaval	Syzigium cumini	1
11	Nelli	Phyllanthus emblica	1
12	Madharam	Bauhinia acuminata	1
13	Madhura loobi	Flacourtia intermis	1
14	Ambazham	Spondias mombin	1
15	Royal Palm	Roystonea regia	21
16	Erukku	Swietenia macrophycia	1
	Total		35

NAKSHATHRAVANAM FRONT SIDE

Sl.no.	Name of Trees	Botanical Name	No: of trees
1	Ughu	Pongamia pinnata	1
2	Plavu	Artocarpus heterophyllus	3
3	Croton	Croton	1
3	Mahagani	Swietenia macrophycia	1
4	Madharam	Bauhinia acuminata	3

5	Chara konna	Peltophorus pterocarpus	1
6	Ashokam	Saraca asoka	1
7	Mavu	Mangifera indica	2
	Total		13

INDOOR STADIUM AREA

Sl.no.	Name of Trees	Botanical Name	No: of trees
1	Royal Palm	Roystonea regia	3
2	Manimaruthu	Terminalia arjuna	3
3	Ezhilam pala	Alstonia scholaris	1
3	Njaval	Syzigium cumini	1
4	Veeti	Dalbergia catifolia	1
5	Peeli vaka	Albizia chinensis	1
6	Vatta	Macaranga peltata	1
7	Manjadi	Adenanthera pavonina	1
8	Pera	Psidium guajava	1
9	Royal Palm	Roystonea regia	1
10	Njaval	Syzigium cumini	2
11	Vatta	Macaranga peltata	1
16	Veeti	Roystonea regia	3
	Total		59

LIBRARY FRONT SIDE

Sl.no.	Name of Trees	Botanical Name	No: of trees
1	Rain Tree	Samanea saman	1
2	Vatta	Macaranga peltata	1
3	Heliconia	Heliconia	Lumsum
3	Madharam	Bauhinia acuminata	Lumsum
4	Nandyarvattam	Tabernaemontana divaricata	Lumsum
5	Manikya	Duranta erecta	Lumsum
6	Vazha	Musa paradisiaca	Lumsum
7	Mahagani	Swietenia macrophycia	15
8	Vaka maram	Delonix regia	1
9	Puli	Tamarindus indica	1
10	Croton (Ornamental)	Croton	Lumsum
11	Manja Mula	Bamboo	1
16	Mahagani	Swietenia macrophycia	14

17	Nagalinkam	Couroupita guianensis	1
18	Aathi	Ficus benjamina	1
19	Poovaka	Deconix regia	2
20	Arana maram	Monoon longifolium	6
21	Aryaveepu	Azadirachta indica	1
22	Star apple	Chrysophyllum cainito	1
23	Aanapana	Caryota urens	1
24	Areca (ornamental)	Areca	1
25	Chembarathi	Hibiscus rosa sinensis	1
26	Kanikonna	Cassia fistula	1
	Total		49

THEERTHA HALL

Sl.no.	Name of Trees	Botanical Name	No: of trees
1	Rain Tree	Samanea saman	1
2	Manjadi	Adenanthera pavonina	1
3	Star apple	Chrysophyllum cainito	1
3	Ambazham	Spondias mombin	1
4	Chara konna	Peltophorus pterocarpus	2
5	Thekku	Tectona grandis	1
6	Ezhilampala	Alstonia scholaris	1
7	Ficus	Ficus benjamina	1
8	Eeta	Dchlandra travancorica	Lumsum
	Total		10

CANTEEN SIDE

Sl.no.	Name of Trees	Botanical Name	No: of trees
1	Njaval	Syzigium cumini	1
2	Vatta	Macaranga peltata	9
3	Aanapana	Caryota urens	6
3	Ashokam	Saraca asoka	1
4	Ficus	Ficus benjamina	1
	Total		18

POOCHOLA

Sl.no.	Name of Trees	Botanical Name	No: of
1	Kashumavu	Anacardium occidentale	1
2	Heliconia	Heliconia	Lumsum
3	Njaval	Syzigium cumini	2
3	Plavu	Artocarpus heterophyllus	4
4	Mrooti	Hydnocarpus layrifolia	1
5	Kanjiram	Strychnos nuxvomica	1
6	Badham	Terminalia cattappa	1
7	Aanapana	Caryota urens	2
8	Vayanna	Cinnamomum verum	1
9	Plavu	Artocarpus heterophyllus	1
10	Poovaka	Deconix regia	1
11	Thanni	Terminlia bellirica	1
12	Manjadi	Adenanthera pavonina	1
13	Kashumavu	Anacardium occidentale	1
14	Vatta	Macaranga peltata	1
15	Mahagani	Swietenia macrophycia	1
16	Rain Tree	Samanea saman	1
17	Vayanna	Cinnamomum verum	1
18	Kurumulaku	Piper nigram	Lumsum
19	Thanni	Terminlia bellirica	1
20	Aanapana	Caryota urens	3
21	Eeta	Dchlandra travancorica	Lumsum
22	Plavu	Artocarpus heterophyllus	1
23	Mula	Bambusoidea	Lumsum
	Total		28

COLLEGE GATE

Sl.no.	Name of Trees	Botanical Name	No: of
1	Chethi	Ixora coccinia	
2	Chara konna	Peltophorus pterocarpus	1
3	Thanni	Terminlia bellirica	1
3	Njaval	Syzigium cumini	1
4	Anjili	Artocarpus heterophyllus	1
5	Puli	Tamarindus indica	1
6	Thanni	Terminlia bellirica	1
7	Poovaka	Deconix regia	2
8	Chempakam	Michelia champaca	1
9	Mahagani	Swietenia macrophycia	2
10	Njaval	Syzigium cumini	1

11	Peeli vaka	Albizia chinensis	1
12	Poovaka	Deconix regia	1
13	Chara konna	Peltophorus pterocarpus	2
14	Njaval	Syzigium cumini	1
15	Ashokam	Saraca asoka	1
16	Manimaruthu	Terminalia arjuna	1
17	Vatta	Macaranga peltata	1
18	Neermaruthu	Terminalia arjuna	1
19	Poovaka	Deconix regia	1
20	Thanni	Terminlia bellirica	1
21	Mahagani	Swietenia macrophycia	1
22	Ezhilampala	Alstonia scholaris	1
23	Badham	Terminalia cattappa	1
24	Thanni	Terminlia bellirica	1
25	Chara konna	Peltophorus pterocarpus	1
26	Mavu	Mangifera indica	1
27	Kashumavu	Anacardium occidentale	1
28	Madharam	Bauhinia acuminata	2
29	Kolambi	Allamanda cathartica	1
30	Peeli vaka	Albizia chinensis	1
31	Chethi	Ixora coccinia	1
32	Plavu	Artocarpus heterophyllus	1
33	Vatta	Macaranga peltata	2
34	Kashumavu	Anacardium occidentale	2
35	Mavu	Mangifera indica	2
36	Mrooti	Hydnocarpus layrifolia	1
37	Njaval	Syzigium cumini	5
38	Royal Palm	Roystonea regia	50
39	Eugenia	Eugenia tinifolia	80
40	Chethi	Ixora coccinia	30
41	Kashumavu	Anacardium occidentale	2
42	Thanni	Terminlia bellirica	1
43	Kanikonna	Cassia fistula	2
44	Peeli vaka	Albizia chinensis	2
45	Njaval	Syzigium cumini	2
46	Mavu	Mangifera indica	1
	Total		218

WAY TO BASKET BALL COURT

Sl.no.	Name of Trees	Botanical Name	No: of
1	Vatta	Macaranga peltata	1
2	Mavu	Mangifera indica	1
3	Aanapana	Caryota urens	1
3	Njaval	Syzigium cumini	1
4	Vatta	Macaranga peltata	1
5	Kashumavu	Anacardium occidentale	1
6	Thekku	Tectona grandis	1
7	Manjadi	Adenanthera pavonina	1
8	Mula	Bambusoidea	1
9	Kanjiram	Strychnos nuxvomica	1
10	Mahagani	Swietenia macrophycia	3
11	Kashumavu	Anacardium occidentale	1
12	Vatta	Macaranga peltata	1
13	Njaval	Syzigium cumini	1
14	Aanapana	Caryota urens	15
15	Vatta	Macaranga peltata	10
16	Peeli vaka	Albizia chinensis	50
	Total		91

CANTEEN NEAR BASKET BALL COURT SIDE

Sl.no.	Name of Trees	Botanical Name	No: of
1	Vatta	Macaranga peltata	1
2	Aanapana	Caryota urens	1
3	Star apple	Chrysophyllum cainito	1
3	Plavu	Artocarpus heterophyllus	2
4	Vaka maram	Delonix regia	1
5	Rain Tree	Samanea saman	1
6	Aanapana	Caryota urens	10
7	Thekku	Tectona grandis	3
8	Mahagani	Swietenia macrophycia	1
9	Plavu	Artocarpus heterophyllus	1
10	Kashumavu	Anacardium occidentale	1
11	Manjadi	Adenanthera pavonina	1
12	Kurumulaku	Piper nigram	Lumsum
13	Sheemakonna	Gliricidia sepium	Lumsum
14	Anjili	Artocarpus hirsutus	1
15	Vatta	Macaranga peltata	1
16	Kashumavu	Anacardium occidentale	1
17	Eeta	Dchlandra travancorica	1
18	Thekku	Tectona grandis	2
	Total		25

MICROBIOLOGY

Sl.no.	Name of Trees	Botanical Name	No: of
1	Theghu	Cocos nucifera	2
2	Plavu	Artocarpus heterophyllus	1
3	Mavu	Mangifera indica	1
3	Thanni	Terminalia bellirica	1
4	Plavu	Artocarpus heterophyllus	1
5	Mavu	Mangifera indica	1
6	Vazha	Musa paradisiaca	Lumsum
7	Madharam	Bauhinia acuminata	1
8	Nelli	Phyllanthus emblica	1
9	Lakshmi taru	Ludwigia octovalvis	1
10	Kanikonna	Cassia fistula	1
11	Pappaya	Carica pappaya	1
12	Ashokam	Saraca asoka	1
13	Mavu	Mangifera indica	1
	Total		14

HERBAL GARDEN

Sl.no.	Name of Trees	Botanical Name	No: of
1	Ughu	Pongamia pinnata	1
2	Nithyakalyani	Catharanthus roseus	1
3	Heliconia	Heliconia	Lumsum
3	Njaval	Syzigium cumini	1
4	Poochaval	Acalypha wilkesiana	1
5	Kanikonna	Cassia fistula	1
6	Madharam	Bauhinia acuminata	1
7	Neermaruthu	Terminalia arjuna	1
8	Ambal	Nymphaea alba	1
9	Chethi	Ixora coccinia	1
10	Lilly	Lilium longiflorum	Lumsum
11	Snake Plant	Dracaena trifasciata	Lumsum
12	Budha mula	Bambusa ventricosa	Lumsum
13	Kolambi	Allamanda cathartica	Lumsum
14	Langhi	Cananga odorata	Lumsum
15	Pandanus(Ornamental)	Pandanus	Lumsum
16	Kavughu	Areca catechu	1
17	Veepila	Murraya koenigii	1
18	Bottle Brush Plant	Callistemon viminalis	1
19	Theghu	Cocos nucifera	1
20	Mavu	Mangifera indica	1

21	Neelayamari	Indigofera tinctoria	1
22	Manikya chembazhukka	Duranta erecta	Lumsum
23	Aranamaram	Monoon longifolium	2
24	Croton (Ornamental)	Croton	Lumsum
25	Musantha	Mussaenda erythrophylla	1
26	Pera	Psidium guajava	1
27	Chethi	Ixora coccinia	1
28	Nandyarvattam	Tabernaemontana divaricata	1
29	Madharam	Bauhinia acuminata	1
30	Theghu	Cocos nucifera	1
31	Dooja	Dooja(ornamental)	1
32	Red palm	Cyrtostachys renda	1
33	Vellilum	Mussaenda glabrata	1
34	Nelli	Phyllanthus emblica	1
35	Plash	Butea monosperma	1
36	Erukku	Calotropis giganta	1
37	Croton (Ornamental)	Croton	Lumsum
38	Chamba	Syzigium samarangense	1
39	Mavu	Mangifera indica	1
40	Pera	Psidium guajava	1
41	Chamba	Syzigium samarangense	1
42	Madharam	Bauhinia acuminata	1
43	Cycas	Cycas revoluta	1
44	Areca (ornamental)	Areca	Lumsum
45	Kolambi	Allamanda cathartica	1
46	Nandyarvattam	Tabernaemontana divaricata	1
47	Elanji	Mimusops elenji	1
48	Ashokam	Saraca asoka	1
49	Neermaruthu	Terminalia arjuna	1
50	Kolambi	Allamanda cathartica	1
51	Nandyarvattam	Tabernaemontana divaricata	1
52	Elanji	Mimusops elenji	1
53	Ashokam	Saraca asoka	1
54	Neermaruthu	Terminalia arjuna	1
55	Chara konna	Peltophorus pterocarpus	1
56	Koovalam	Aegle marmelos	1
57	Chamba	Syzigium samarangense	1
58	Dooja	Platycladus orientalis	5
59	Aathi	Ficus	1
60	Chethi	Ixora coccinia	1
61	Peeli vaka	Albizia chinensis	1

62	Nandyarvattam	Tabernaemontana divaricata	1
63	Tulsi	Ocimum tenuiflorum	Lumsum
64	Ughu	Pongamia pinnata	1
65	Pera	Psidium guajava	1
66	Kumizh	Gmelina arborea	1
67	Chittaratha	Alpinia calcarata	1
68	Koghini	Lantana camara	1
69	Broken heart money plant	Monstera adansonii	Lumsum
70	Mulla	Jasminum jasmin	Lumsum
	Total		62
	Grand Total		742

8. BIRDS AREA

.Sree Sankara College started a Bird Club International (BCI) which is started November 2020 onwards. BCI is promoting global interest in birds, conservation of nature and environment through public campaign and education. .Birds play a number of roles in any ecosystem. They play a balancing role in the ecosystem and are part of cultural enhancement and part of tasks such as predation, pollination and seed dispersal. Birds serve as excellent flagships and vital environmental indicators of the climate and weather conditions of a place. By focusing on birds, and the sites and habitats on which they depend, the Birds Club in Sree Sankara College aims to improve the quality of life for birds, other wildlife (biodiversity), and for the people.

Figure 6 BIRDS CLUB AREA

9. INDOOR STADIUM

College has an Indoor stadium and an auditorium.

Figure 7 INDOOR STADIUM

10. GREEN PLAY GROUND

Education is incomplete without sports and games. Sports and games **are beneficial in teaching us punctuality, responsibility, patience, discipline, and dedication towards our goal.** The importance of games and sports in student's life is immense. It has proved to be very therapeutic in nature. Sports help improve social skills, such as dispute management and sport-based interaction. **Sports inculcate the feeling of fairness in a child and encourage them to be committed, taking defeat in a positive manner.** It teaches us to be joyful, united, and appreciative in life. Students are the youth of our nation, and they need to be energetic, physically active, and mentally fit. By understanding the responsibility to make its students healthy Sree Sankara College Kalady has built and maintained Football Ground and Basketball court in green surroundings.

FIGURE 8 OPEN NATURAL GROUND

WATER RESOURCES AND CONSERVATION

The requirement of water for the college, hostels and gardening etc are met by supply from well, bore well and from rain water storage tanks. . The water is collected in in different tanks main tanks each in block buildings. The water checked in an accredited laboratory in time to time to ensure its pot ability.

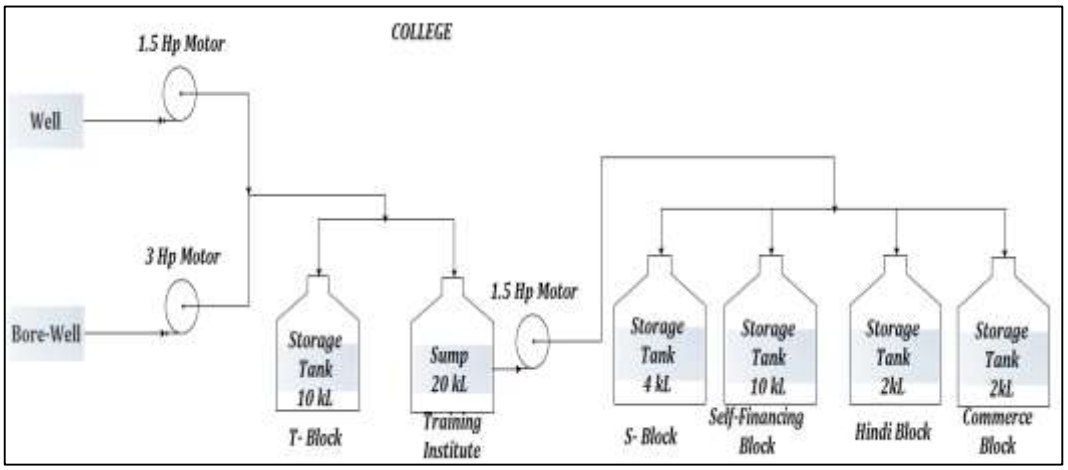
11. WATER RESOURCES

There are three wells in the college, one well is located near the chapel which is not use at present. Well located outside of campus is the main source of water for college and hostel

TABLE 4: WATER SOURCES

Location	Source
Well	One in College and Another one in Hostel
Bore well	College
Rain water storage tanks	Concrete tank and Ground water Recharging

In College



In Hostel

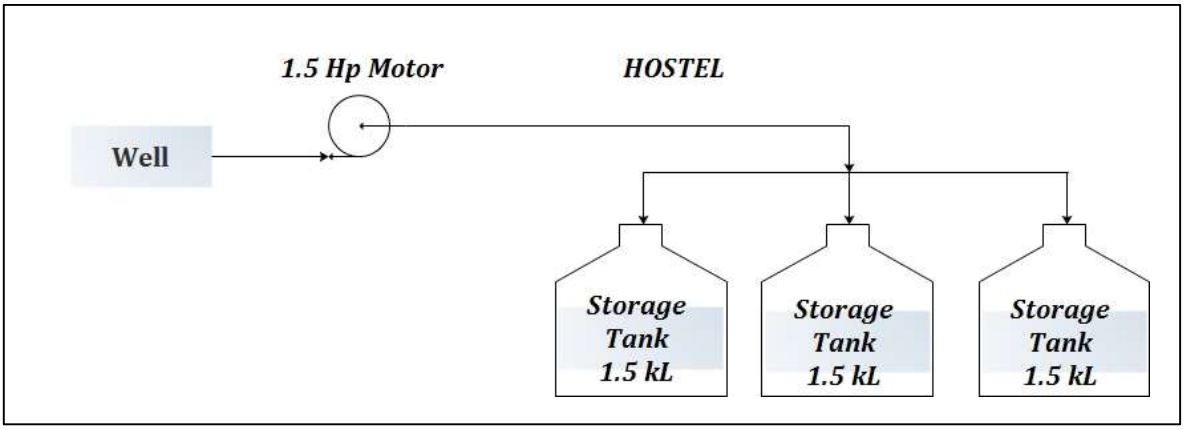


Figure 9 WATER LINE DIAGRAM

12. RAIN WATER HARVESTING

Rainwater harvesting (RWH) is a technique of collection and storage of rainwater into natural reservoirs or tanks, or the infiltration of surface water into subsurface aquifers (before it is lost as surface runoff). One method of rainwater harvesting is rooftop harvesting. With rooftop harvesting, most any surface — tiles, metal sheets, plastics, but not grass or palm leaf can be used to intercept the flow of rainwater and provide a household with high-quality drinking water and year-round storage. Other uses include water for gardens, livestock, and irrigation, etc.

Rainwater harvesting for ground water recharge.

Aim and Objectives:

- Conservation of rainwater for future use
- To use rainwater for gardening Activity: Conservation of rainwater in soil or in a container is known as rainwater harvesting.

The rainwater from entire college campus and roof top of building is collected through PVC pipe s and leading Rain water collection tank installed in the college campus

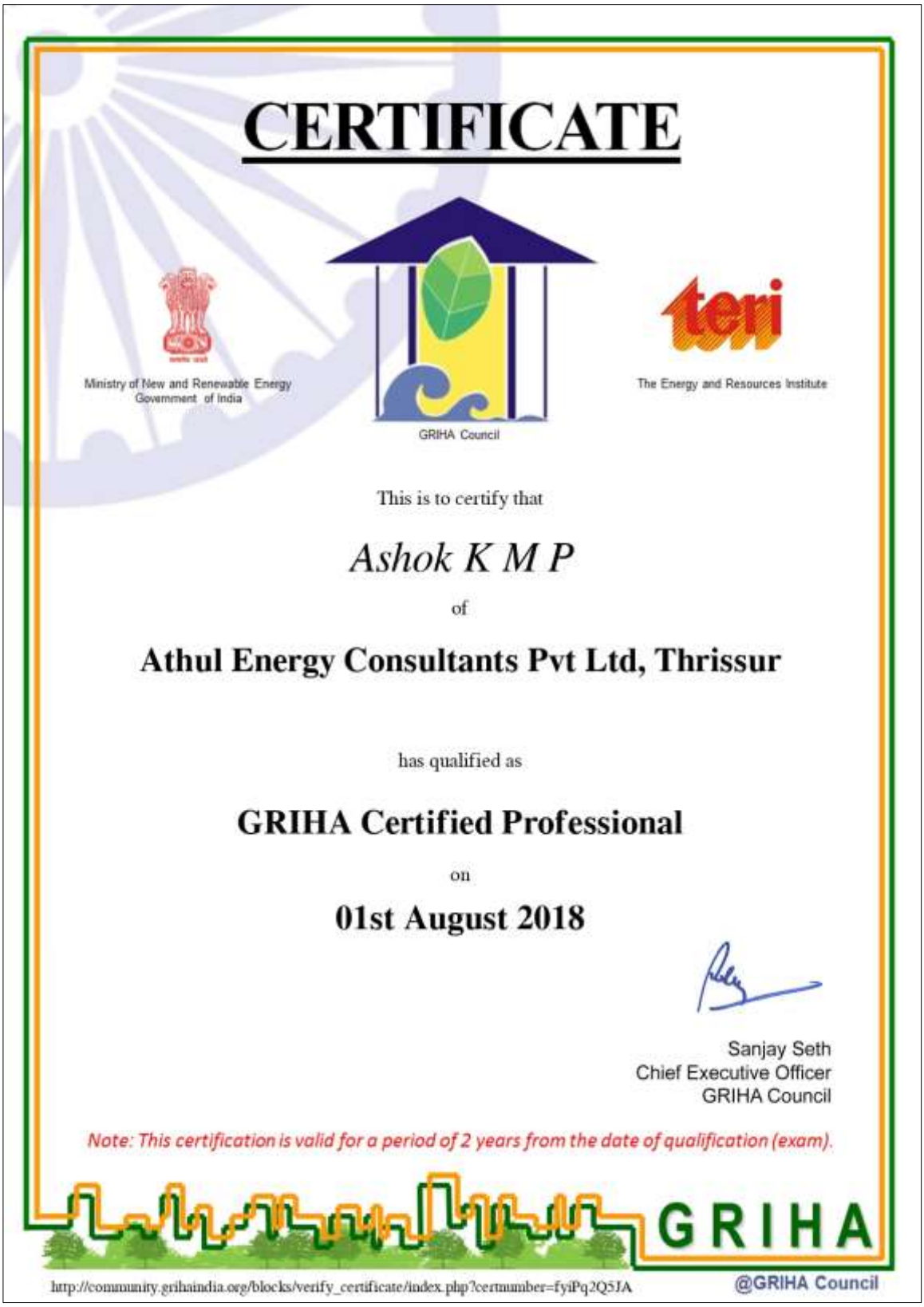
Figure 10RAIN WATER COLLECETION

CONCLUSION:

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

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

ANNEXURE-1



CERTIFICATE

Ministry of New and Renewable Energy
Government of India

GRIHA Council

The Energy and Resources Institute

This is to certify that

Ashok K M P

of

Athul Energy Consultants Pvt Ltd, Thrissur

has qualified as

GRIHA Certified Professional

on

01st August 2018

Sanjay Seth
Chief Executive Officer
GRIHA Council

Note: This certification is valid for a period of 2 years from the date of qualification (exam).

GRIHA

http://community.grihaindia.org/blocks/verify_certificate/index.php?certnumber=fyiPq2Q5JA

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