

GREEN AUDIT - 2019-20



SACRED HEART COLLEGE CHALAKUDY, THRISSUR 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 Sacred Heart College Chalakuadi 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. Sr. Reena Ittyachan Principal
- 2 Dr. Shirly Jose K 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

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



Yours faithfully

Managing Director
Athul Energy Consultants Pvt Ltd



GREEN AUDIT SUMMARY

- ❖ Sacred Heart 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 (Butter fly garden, Zodiac Garden, Peace garden vegetable garden, indoor gardening etc.). 136 species of tree of 284 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, Vegetable garden, Butterfly garden, indoor garden in college.
- ❖ Staff and student's collaboration of NSS 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 and open and close fitness centers in college.
- ❖ Well placed rainwater collection tanks is provided in the college
- ❖ Well maintained open ground and auditorium is maintained by 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.

GENERAL DETAILS

The general details of the M/s Sacred Heart College, Chalakudy given below in table.

Table 1 GENERAL DETAILS

Sl. No:	Particulars	Details
1	Name of the College	Sacred Heart College, Chalakudy
2	Address	Sacred Heart College Railway Station Road, Chalakudy, Thrissur, Kerala - 680307 Ph: +91 480 2701159, +91 480 2704048
3	Contact Person	IQAC Coordinator,
4	E-mail ID	shcollegecky@gmail.com principalshcollegecky@gmail.com
5	Web site	sacredheartcollege.ac.in
6	Type of Building	Educational Institution
7	Annual Working Days	210
8	No: of Shifts	Day Shift (One) (9AM -4PM)
9	No: of students enrolled	1136
10	No : of teaching staff	68
11	No: of non-teaching staff	21
12	Total campus area	25.28
13	Total Built Up area (M ²)	21870.89
14	No: of courses	Degree -,09 PG -04
15	Herbal Garden	No
16	Vegetable garden	Yes
17	Fish pond	Yes
18	Butter fly garden	Yes
19	Star Garden	Yes
20	Sient Area	Yes
21	Oxygen park	Yes
22	Meditation area	Yes
23	Open Gym	Yes
24	Play Grounds	8 Track Athletics Field, Basketball court,
25	Auditorium	01 numbers
26	Rain water harvesting	Yes



ABOUT SACRED HEART COLLEGE

Sacred Heart College, Chalakudy is the realization of a long-cherished dream of the people of Chalakudy and the suburbs. The will of the people assisted by the blessings of heaven played a marvelous role in starting the college. The profound fellow feeling of the Clarist Sisters paved the way for the starting of the college in 1980 by the Alvernia Province of Franciscan Clarist Congregation. The college is affiliated to the University of Calicut and is aided by the Government of Kerala. Located within the municipal limits of Chalakudy with a 25.28-acres serene campus, the college provides a congenial ambience for the overall advancement of the students. In 1991, the college was upgraded to a first grade College by the Government of Kerala. At present the College offers 9 UG Programmes, 8 PG Programmes and 1 integrated PG programme (B Sc. & M Sc. Psychology). The College has completed 41 years of serving our nation in education.

Mission

The sacred mission of the college enshrines creative scholarship and enrichment of young minds not merely in acquired knowledge, but in the spirit of enquiry, harmonizing the spiritual and intellectual adventures. Fostering an excellent 'esprit de corps' (feeling of togetherness), we aspire to mould competent persons armed with academic excellence, ethical principles, social sensitivity and spiritual sublimity equipped for innovative leadership enabling their "Lux in Tenebris Lucet" (Light shines in Darkness)

Vision

That the people shall know, for, knowledge is power. Education opens one's inner eye to the inestimable glory and enduring beauty of wisdom. Committed to serving the nation and humanity, this college founded in His name, envisages the academic pursuit of truth and the search for righteous living as the supreme task'



Figure 1 COLLEGE MAIN BUILDING



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 their 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.

Sacred Heart College 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.

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

Building Area

Table 2 MAJOR BUILDING AREA

Sl No:	Name of Building	Area in M ²
1	Main Building	11572.36
2	Library	1684.62
3	Auditorium	1643.04
4	Canteen	442.25
5	Students Amenity Centre	108
6	Fitness Centre	185.4
7	UG Hostel	1643.04
8	Prayer hall	191.63
9	Staff Quarters cum PG Hostel	1049.55
10	Self-financing college	3257
11	Total	21776.89

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.

Recommendation

Sacred Heart Management is to initiated a herbal garden in its premises
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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.



In Sacred Heart College lots of vegetables are cultivated seasonally like Brinjal, Ladies Finger, Turmeric, Ginger, Green Chilly, Birds eye Chilly (Kanthari Mulaku), Tapiaco, Plantain, banana, Pappaya, Curry leaves, etc.



Figure 3 VEGETABLE CULTIVATION

3. PEACE GARDEN

Peace Garden is which becomes "a symbol of hope for the future and our college commitment to peace — peace within ourselves and our college community, peace within the global family and peace with the rest of nature".



Figure 4 PEACE GARDEN



4. SILENT PLACE OR KUTTIVANAM

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



Figure 5 KUTTIVANAM

5. 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.



Figure 6 BUTTERFLY GARDEN



6. 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 7 OXYGEN PARK

Environment audit is the best way to analyse and solving the critical issues of waste management. Environment audit can add value to management approach being taken by college for identifying, collecting, segregating and processing of waste generated in the college campus.

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 Sacred Heart 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.

7. 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.

Sacred Heart College developed a star garden on the entrance side. Most of the star related trees are in developing stage in the garden. The details are given below.

Table 3 ZODIAC PLANTS

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



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 8 ZODIAC GARDEN

8. 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. Sacred Heart College Chalakudi have 136 varieties plants. The Sacred Heart College Chalakudi have 284 numbers of major trees are lace in this campus.

TABLE 4: LIST OF TREES

Sl.no.	Vernacular Name of Trees	Botanical Name
1	Mahagani	Swietenia macrophyca
2	Theghu	Cocos nucifera
3	Arali	Nerium oleander
3	Heliconia	Heliconia
4	Pera	Psidium guajava
5	Mavu	Mangifera indica
6	Vazha	Musa paradisiaca
7	Dividivi	Caesalpinia coriaria
8	Elanji	Mimusops elenji
9	Adalodakam	Justicia adhatoda
10	Lilly	Lilium longiflorum
11	Areca (ornamental)	Areca
12	Red palm	Cyrtostachys renda
13	Thamara	Nelumbo nucifera
14	Chethi	Ixora coccinia
15	Cactus	Cactaceae
16	Alankara Pana	Ornamental palms
17	Bleeding Heart	Clerodendrum thomsoniae
18	Cycas	Cycas revoluta
19	Red palm	Cyrtostachys renda
20	Bottle brush plant	Callistemon citrinus
21	Chamba	Syzigium samarangense
22	Dividivi	Caesalpinia coriaria
23	Areca (ornamental)	Areca
24	Chara konna	Peltophorus pterocarpus
25	Srawberry pera	Psidium cattleyanum
26	Croton (Ornamental)	Croton
27	Kolambi	Allamanda cathartica
28	Vazha	Musa paradisiaca



29	Dividivi	Caesalpinia coriaria
30	Thekku	Tectona grandis
31	Mavu	Mangifera indica
32	Theghu	Cocos nucifera
33	Mahagani	Swietenia macrophyca
34	Mutta Pazham	Pouteria campechisns
35	Lubi	Flacourtia jangomas
36	Jathi	Myristica fragrans
37	Mavu	Mangifera indica
38	Nelli	Phyllanthus emblica
39	Passion Fruit	Passiflora edulis
40	Theghu	Cocos nucifera
41	Plavu	Artocarpus heterophyllus
42	Aathachakka	Annona reticulata
43	Pera	Psidium guajava
44	Bougainvilla	Bougainvillea
45	Croton (Ornamental)	Croton
46	Mulla	Jasminum
47	Langhi	Cananga odorata
48	Arana maram	Monoon longifolium
49	Pera	Psidium guajava
50	Jathi	Myristica fragrans
51	Ficus	Ficus benjamina
52	Rambutan	Nephelium lappaceum
53	Babloos narakam	Pomelo
54	Raja Puli	Garcinia indica
55	Mavu	Mangifera indica
56	Bottle brush plant	Melaleuca quinquenervia
57	Thekku	Tectona grandis
58	Peeli vaka	Albizia chinensis
59	Mavu	Mangifera indica
60	Heliconia	Heliconia
61	Plavu	Artocarpus heterophyllus
62	Christmas tree	Araucaria columnaris
63	Pathimugam	Caesalpinia sappan
64	Pera	Psidium guajava
65	Mavu	Mangifera indica
66	Theghu	Cocos nucifera
67	Aathachakka	Annona reticulata
68	Sarvasugandhi	Pimenta dioica



69	Areca (ornamental)	Areca
70	Muringakka	Moringa oleifera
71	Langhi	Cananga odorata
72	Athipazham	Ficus carica
73	Pera	Psidium guajava
74	Babloos narakam	Citrus maxima
75	Irubam Puli	Averrhoa bilimbi
76	Passion Fruit	Passiflora edulis
77	Kariveepu	Murraya koenigii
78	Orchid	Orchidaceae
79	Elanji	Mimusops elenji
80	Alankara Taikal	Pandanus

PG HOSTEL

Sl.no.	Name of Trees	Botanical Name
1	Lubi	Flacourtia jangomas
2	Sheemakonna	Gliricidia sepium
3	Mavu	Mangifera indica
3	Narakam	Citrus limon
4	Pera	Psidium guajava
5	Saprota	Manilkara zapota
6	Chamba	Syzigium samarangense
7	Pera	Psidium guajava
8	Narakam	Citrus limon
9	Kadaplavu	Artocarpus altilis
10	Nelli	Phyllanthus emblica
11	Mangosteen	Garcinia mangostana
12	Narakam	Citrus limon
13	Mavu	Mangifera indica
14	Puli	Tamarindus indica
15	Vazha	Musa paradisiaca
16	Mavu	Mangifera indica
17	Ambazham	Spondias mombin
18	Pera	Psidium guajava
19	Kurumulaku	Piper nigrum
20	Theeta pullu	Panicum maximum
21	Maracheeni	Manihot esculenta
22	Noni	Morinda citrifolia
23	Star apple	Chrysophyllum cainito
24	Cara pazham	Carissa carandas



25	Green apple	Ziziphus mauritiana
26	Baraba	Garcinia intermedia
27	Peanut butter fruit	Bunchosia argentea
28	Mavu	Mangifera indica
29	Koova	Curcuma angustifolia
30	Kodampuli	Garcinia cambogia
31	Pappaya	Carica pappaya
32	Saprota	Manilkara zapota
33	Mangosteen	Garcinia mangostana
34	Pera	Psidium guajava
35	Parooathi	Ficus hirsuta
36	Karimbu	Saccharum officinarum
37	Vazha	Musa paradisiaca
38	Plavu	Artocarpus heterophyllus
39	Theghu	Cocos nucifera
40	Enjamudi	Stachytarpheta urticifolia
41	Manja mula	Bambusa vulgaris
42	Njaval	Syzigium cumini
43	Kashumavu	Anacardium occidentale
44	Anjili	Artocarpus hirsutus
45	Plavu	Artocarpus heterophyllus
46	Badham	Terminalia cattappa
47	Arinelli	Phyllanthus emblica
48	Kachil	Dioscorea alata
49	Chena	Amorphophallus paeoniifolius
50	Theghin Taikal	Cocos nucifera
51	Bridal bouquet	Poranopsis paniculata
52	Akashamalli	Millingtonia hortensis
53	Pera	Psidium guajava
54	Jathi	Myristica fragrans
55	Mavu	Mangifera indica
56	Muthiri pera	Psidium guineense

UG HOSTEL

Sl.no.	Name of Trees	Botanical Name
1	Mavu	Mangifera indica
2	Aathachakka	Annona reticulata
3	Muringakka	Moringa oleifera
3	christmas tree	Araucaria columnaris
4	Puli	Tamarindus indica



5	Mavu	Mangifera indica
6	Aryaveepu	Azadirachta indica
7	Elanji	Mimusops elenji
8	Arana maram	Monoon longifolium
9	Red palm	Cyrtostachys renda
10	Dooja	Dooja(ornamental)
11	Thanni	Terminalia bellirica
12	Kattadi	Casuarina equisetifolia
13	Dividivi	Caesalpinia coriaria
14	Elanji	Mimusops elenji
15	Muringa	Moringa oleifera
16	Mavu	Mangifera indica
17	Pera	Psidium guajava
18	Chethi	Ixora coccinia
19	Puli	Tamarindus indica
20	Sheemakonna	Gliricidia sepium
21	Saprota	Manilkara zapota
22	Koval	Coccinia grandis
23	Langhi	Cananga odorata
24	Apple chamba	Syzygium samarangense
25	Lubi	Flacourtia jangomas
26	Chena	Amorphophallus paeoniifolius
27	Kariveepu	Murraya koenigii
28	Kudam puli	Garcinia gummi-gutta
29	Ambazham	Spondias mombin
30	Theghu	Cocos nucifera
31	Sheemakonna	Gliricidia sepium
32	Chamba	Syzygium samarangense
33	Pachamulaku	Capsicum annum
34	Kavughu	Areca catechu
35	Kanikonna	Cassia fistula
36	Badham	Terminalia cattappa
37	Mahagani	Swietenia macrophyca
38	Njaval	Syzygium cumini
39	Pineapple	Ananas comosus
40	Karuvapatta	Cinnamomum verum
41	Sheemakonna	Gliricidia sepium
42	Peeli vaka	Albizia chinensis
43	Kavughu	Areca catechu
44	Theghu	Cocos nucifera



45	Arinelli	Phyllanthus emblica
46	Kadaplavu	Artocarpus altilis
47	Grambu	Syzygium aromaticum
48	Thekku	Tectona grandis
49	Jathi	Myristica fragrans
50	Babloos narakam	Pomelo
51	Sheemakonna	Gliricidia sepium
52	Chembu	Colocasia
53	Irubam Puli	Averrhoa bilimbi
54	Thekku	Tectona grandis
55	Rambutan	Nephelium lappaceum
56	ATHI	Ficus microcarpa
57	Payar	Pisumsativum
58	Jathi	Myristica fragrans
59	Babloos narakam	Pomelo
60	Thekku	Tectona grandis
61	Madharam	Bauhinia acuminata
62	Kavughu	Areca catechu
63	Aanapana	Caryota urens
64	Jathi	Myristica fragrans
65	Theghu	Cocos nucifera
66	Veepila	Murraya koenigii
67	Vazha	Musa paradisiaca
68	Theghu	Cocos nucifera
69	Plavu	Artocarpus heterophyllus
70	Sheemakonna	Gliricidia sepium
71	Kavughu	Areca catechu
72	Theghu	Cocos nucifera
73	Jathi	Myristica fragrans
74	Aanapana	Caryota urens
75	Kazhanji	Caesalpinia bonducella
76	Njaval	Syzigium cumini
77	Karuvapatta	Cinnamomum verum
78	Kazhanji	Caesalpinia bonducella
79	Njaval	Syzigium cumini
80	Mahagani	Swietenia macrophyca
81	Ughu	Pongamia pinnata
82	Nelli	Phyllanthus emblica
83	Neermaruthu	Terminalia arjuna
84	Thanni	Terminalia bellirica



85	Manimaruthu	Terminalia arjuna
86	Mahagani	Swietenia macrophyca
87	Badham	Terminalia cattappa
88	Neermaruthu	Terminalia arjuna
89	Manimaruthu	Terminalia arjuna
90	Chara konna	Peltophorus pterocarpus
91	Ughu	Pongamia pinnata
92	Puli	Tamarindus indica
93	Kazhanji	Caesalpinia bonducella
94	Nelli	Phyllanthus emblica
95	Aranamaram	Monoon longifolium
96	Red palm	Cyrtostachys renda
97	Kaitha(Ornamental)	Pananus
98	Heliconia	Heliconia
99	Nagavettila	Eupatorium triplinerve
100	Chempakam	Michelia champaca
101	Musantha	Mussaenda erythrophylla
102	Pala	Plumeria obtusa
103	Musantha	Mussaenda erythrophylla
104	Bougainvilla	Bougainvillea
105	Visharipana	Ornamental palm
106	Mangosteen	Garcinia mangostana
107	Marachethi	Ixora branchiata
108	Bougainvilla	Bougainvillea
109	Baraba	Garcinia intermedia
110	Kazhanji	Caesalpinia bonducella
111	Madharam	Bauhinia acuminata
112	Kanikonna	Cassia fistula
113	Poovaka	Deconix regia
114	Chamatha	Butea monosperma
115	Kumizh	Gmelina arborea
116	Mulberry	Morus alba
117	Adalodakam	Justicia adhatoda
118	Koovalam	Aegle marmelos
119	Karinochi	Vitex trifolia
120	inji (ornamental)	Alpinia purpurata
121	Cycas	Cycas revoluta
122	Kanjiram	Strychnos nuxvomica
123	Ramacham	Chrysopogon zizanioides
124	Neermaruthu	Terminalia arjuna

125	Thanni	Terminlia bellirica
126	Neermaruthu	Terminalia arjuna
127	Ughu	Pongamia pinnata
128	Kadambu	Neolamackia cadamba
129	Madhura Lubi	Flacourtia inermis
130	Kanikonna	Cassia fistula
131	Njaval	Syzigium cumini
132	Mangosteen	Garcinia mangostana
133	Nagamaram	Mesua ferrea
134	Chamatha	Butea monosperma
135	Christmas tree	Araucaria columnaris
136	Kolambi	Allamanda cathartica
137	Croton (Ornamental)	Croton
138	Manja mula	Bambusa vulgaris
139	Karimaram	Diospyros ebenum
140	Arali	Nerium oleander
141	Chembarathi	Hibiscus rosa sinensis
142	Cherry	Prunus avium
143	Poochedikal	Ornamental flowering plants
144	Shathavary	Asparagus racemosus

1. **Maintain the equilibrium of air and food:** Humans and animals need food and oxygen and excrete carbon dioxide and water. The plants, algae, etc, in the Kuttivanam use carbon dioxide and water and release or produce oxygen and food.
2. **Filter and store water, and drastically reduce storm-water runoff:** Forests filter and regulate the flow of water. The litter over the forest floor acts as a sponge which filters, stores and gradually releases the water to natural channels and ground water.
3. **Conserve valuable topsoil and reduce soil erosion:** A forest is like a protective green cloth over Mother Earth's fragile body.
4. **Conserve biodiversity and balance ecology:** In a natural environment, the populations of species are balanced to an optimum minimum level
5. **Reduce pollution:** Plants can remove and/or Phyto remediate pollutants and contaminants from soil and water.
6. **Arrest or reverse global warming:** Global warming can cause extinction of species, tropical cyclones, extreme weather, tsunamis, abrupt climatic change, sea level rise, increased human stress resulting in violence, etc. These are just a few of its catastrophic effects. Plants can lock CO₂ in their bodies to save our planet and the life on it.



9. WATER BODIES

. Capitalize on an ecologically balanced and sustainable lake and pond management program that rewards you with the peace of mind to know you have a comprehensive, all-inclusive program in place that takes away the burden of management, leaving you with all the benefits of an aesthetically pleasing aquatic ecosystem that is a focal point for the campus.



Figure 9 WATER BODIES

10. AUDITORIUM

There is one auditorium is maintained the college This well-furnished air conditioned auditorium will giving special beauty to the college.



Figure 10 AUDITORIUM

11. 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 Sacred Heart College Chalakudi has built and maintained 8 Track Athletics ground and Basketball court in green surroundings.



FIGURE 11 OPEN NATURAL GROUND

12. SPECIAL INITIATIVES OF COLLEGE

3. OPEN GYM OR FITNESS GARDEN

Sacred Heart College Chalakudi students developed nurtured and marinated a garden in the back side of main building. Along with all the path ways leading to various buildings are covered with trees. This showing the interest of college authorities to teaching sustainability or protecting environment innote books or as theory but practicing it on the ground level.



Figure 12 OPEN GYM OR FITNESS GARDEN

WATER RESOURCES AND CONSERVATION

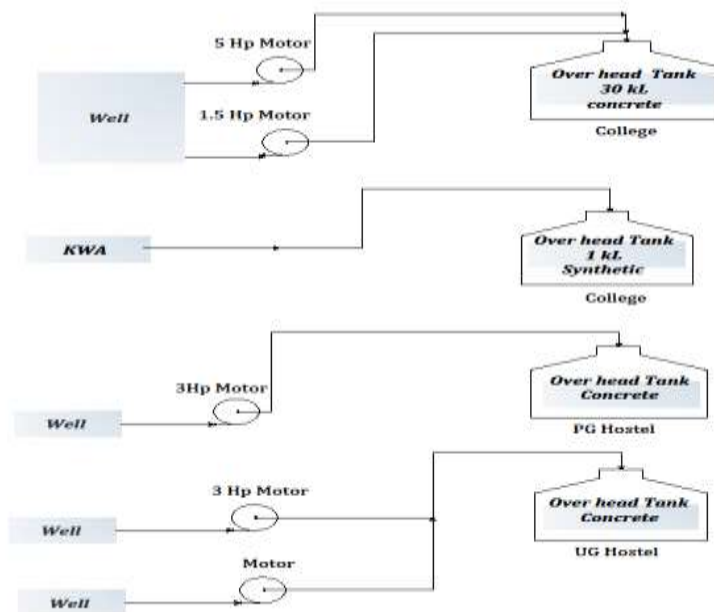
The requirement of water for the college, hostels and gardening etc are met by supply from bore well and Water authority and from rain water storage tanks. . The water is collected in one main tanks and it is located in main block. etc. The water checked in an accredited laboratory in time to time to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

13. 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 5: WATER SOURCES

Location	Source
Well	Different loactions
Kerala Water authority	Sump
Rain water storage tanks	Synthetic tank and Ground water Recharging



14. 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 pipes and leading Rain water collection tank installed in the college campus



Figure 13 RAIN 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 Sacred Heart College Chalakudi 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

