HAJEE KARUTHA ROWTHER HOWDIA COLLEGE

(AUTONOMOUS) UTHAMAPALAYAM - 625533

GREEN AUDIT REPORT

2018 - 2019

GREEN AUDIT REPORT

The term "**Green"** means environmentally - friendly or not damaging the environment. This can acronymically be called as "Global Readiness in Ensuring Ecological Neutrality" (GREEN). Green accounting can be defined as systematic identification, quantification, recording, reporting and analysis of components of ecological diversity by expressing the same in financial or social terms. Green spaces are a great benefit to our environment. They filter pollutants from the air, provide shade, lower temperatures and reduce erosion of soil into our waterways. A few of the environmental benefits are water quality protection, reduce heat build-ups, reduced soil erosion, improved air quality, lower attic temperatures, natural resource conservations and cooler summer days.

A Green Campus is a place where environmental friendly practices and education combine to promote sustainable eco-friendly atmosphere on the campus. The green campus concept offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of the mankind. Benefits of going green in the college campus are removal or reduction of harmful products, chemicals, toxins and dangerous materials polluting in the atmosphere.

Hajee Karutha Rowther Howdia College is situated in the Cumbum valley. Cumbum Valley of southern Western Ghats is located in the Theni district of Tamil Nadu state near the Kerala state border. This is the most fertile valley in South India. The valley includes lands between Thekkadi Hills, Varusanadu Hills, and Kodaikanal Hills. It is the home to a diverse flora and fauna. The region is covered with scrub forests in the foothills and the higher ranges are under cultivation of spices like Cardamom, Cinnamon, Pepper and commercial crops like Tea and Coffee. The mountaintops are canopied with evergreen forests. The tree species is dominated by *Holoptelia integerifolia, Ceiba pentandra, Leucaena leucocephala, Tectona grandis, Pavetta indica, Euphorbia triucalli, Calotropis gigantea* and *Lantana camara*. It is a home to birds, reptiles, mammals and different species of butterflies. The Wild animals like leopards, tigers, deer, bear, wild boar

and porcupines are also found in plenty. The birds that are popular here is the jungle fowl, wagtails, bulbuls, swallows, kites, shrikes, warblers and more than a hundred species of birds are identified.

Uthamapalayam is a Town Panchayat and a Taluk headquarters in Theni district. Uthamapalayam Taluk lies between latitude $9^{o}34$ and $10^{o}10$ North and longitude $77^{o}10$ and $77^{o}28$ East.

Hajee Karutha Rowther Howdia College is situated approximately one and a half KMs from the town. The total area of the college is 25 acres and $3/4^{th}$ of the college area is covered by green vegetations. The college is the home to more than 450 trees, shrubs, herbs, wild and cultivated plants of different families. The college is rich in flora with good green cover. The greenery of the campus is highly appreciated by the public. At the green festival celebration, more than 100 saplings were donated by the forest department. All the saplings were planted in the women's hostel campus. Awareness on maintaining campus green and clean is given to the students through Swachh Bharat. The college has registered itself in the Institutional Swachhta Ranking System. The NSS, NCC and YRC units have taken up the plantation programme for increasing the green cover in the nearby villages and special awareness programmes on plastic free environment is also propagated in and around the villages. In addition, the students of ECO Club are also actively participating in the plantation programme during various occasions.

Environmental Studies is a part of Academic Curriculum of UG programmes, which also promotes awareness towards human values, health, hygiene and aesthetic value of environment.

Green Initiatives

1. Rain Water Harvesting

Rain water harvesting is the accumulation and storage of rainwater for reuse on-site, rather than allowing it to run off. Rainwater is collected from roofs in many places. The water collected is redirected to a deep pit (well, shaft, or borehole). The stored water is used for gardens, irrigation, domestic use with proper treatment, etc. The harvested water will increase the groundwater level. Our college has been

maintaining 17 rain water harvesting pits. Each building in the college is connected with rain water pits of different measurements. The total amount spent in constructing Rain water harvesting pits is Rs. 2, 75,000. These rainwater harvesting structures support the recharge of ground water and thereby the campus gets sufficient rise in the level of ground water.

2. Pongal Festival

Pongal festival, a harvest festival of Tamil Nadu, falls in the month of January. As per Tamilnadu Government Recommendations, every year our college celebrates this festival without smoke to make our environment clean and smoke free.

3. Solar Power Plant

Solar power plant is based on the conversion of sunlight into electricity, either directly using photovoltaics (PV), or indirectly using concentrated solar power (CSP). Our college is provided with two solar power units and produced energy has been used for daily consumption. The solar power plant generates 49,640 KWH of energy per year.

4. Windmill

Windmill converts the energy of wind into rotational energy by means of vanes called blades. As our college is situated in high altitude area, two windmills are setup on the campus, producing 73,000 KWH power generations per year.

5. Water Resources

The water need is fulfilled by 6 functional bore wells and they supply water for various needs of the campus community. Purified drinking water is supplied in every building of the campus. The RO plant installed on the campus provides drinking water facility to the staff and the students.

6. Drip Irrigation

Drip irrigation is a type of micro-irrigation system that has the potential to save water and nutrients by allowing water to drip slowly to the roots of plants, either above the soil surface or buried below the surface. The goal is to place water directly into the root zone and minimize evaporation. Drip irrigation practice is used to supply water in the Hedges and Garden areas of the campus. Sprinkler method is also used to irrigate the lawn areas.

7. Energy Conservation

Ordinary bulbs are being replaced by CFL and LED bulbs. Our college is facilitated with 223 LED bulbs and 113 CFL bulbs. The energy is also conserved by using natural light in the classrooms.

8. Tobacco Free Campus

Tobacco use is a risk factor for many diseases, especially those affecting the heart, liver, and lungs and causes many type of cancers. Our college is maintaining the tobacco free environment and usage of tobacco and related products are strictly prohibited on the campus. Stickers to this effort have been pasted in different floors of the college.

9. Green Cover

Garden provides greenery and sustainability on the campus to ensure green standards. Various types of gardens are maintained in the college campus. Herbal garden, Aesthetic garden, Lawns, Hedges and Arboreal Gardens are cultivated. Gardens are the important tool to maintain Greenery. Scientific names and vernacular names (Tamil) of trees are displayed in metal boards on every tree.

The herbal garden of the college is established in an area of 4000sq feet of land where important species of medicinal plants and kitchen plants are grown. There are four lawns and many hedges are present adding the greenery and aesthetic value to the college campus.

LIST OF TREES LOCATED IN COLLEGE CAMPUS

S.No	VERNACULAR NAME	BINOMIAL NAME	FAMILY NAME	NO. OF TREES
1	Puvarasu / பூவரசு	*Thespesia populnea*	Malvaceae	12
2	Pungai / புங்கை	*Pongamia pinnata*	Fabaceae	26
3	*Tekku* /தேக்கு	*Tectona grandis*	Lamiaceae	05
4	Veppamaram / வேப்ப மரம்	*Azadirachta indica*	Meliaceae	207
5	Vaagaimaram /வாகை மரம்	*Albizia lebbeck*	Fabaceae	34
6	Paalaimaram / பாலை மரம்	*Wrightia tinctoria*	Apocyanaceae	20
7	Savukku / சவுக்கு	*Casuarina equisetifolia*	Casuarinaceae	09
8	Maramalli/ Paneer Puspam /மரமல்லிகை, பன்னீர்புஷ்பம்	*Millingtonia hortensis*	Bignoniaceae	26
9	Nettilinkam/ நெட்டிலிங்கம்	*Polyalthia longifolia*	Caesalpiniaceae	02
10	Cemmavir-konrai / செம்மயிற்கொன்றை	*Delonix regia*	Caesalpiniaceae	30
11	Manjalkonrai / மஞ்சள் கொன்றை	*Senna siamea*	Caesalpiniaceae	04
12	Sarakkontrai / சரக்கொன்றை	*Cassia fistula*	Caesalpiniaceae	08
13	Ayamaram / ஆய மரம்	*Holoptelea integrifolia*	Fabaceae	16
14	Periya-takarai / பெரியதகரை	*Leucaena leucocephala*	Caesalpiniaceae	10
15	Perungkonrai/ பெருங்கொன்றை	*Peltophorum pterocarpum*	Caesalpiniaceae	22
16	Arunelli / அருநெல்லி	*Phyllanthus acidus*	Euphorbiaceae	01
17	Etti/ தோதகத்தி	*Dalbergia sissoo*	Fabaceae	02
18	Erikai/எரிகை	*Dalbergia melanoxylon*	Fabaceae	01
19	Nanju muritchan/நஞ்சு முறிச்சான்	*Pisonia alba*	Nyctaginaceae	01
20	Vadanaravanan/ வாதநாராயணன்	*Delonix elata*	Caesalpiniaceae	03
21	Visiri vaalai/ விசிறி வாழை	*Ravenela madagascariensis*	Musaceae	02
22	Vengai/ வேங்கை	*Pterocarpus marsupium*	Fabaceae	02
23	Koyya/ கொய்யா	*Syzygium guajava*	Myrtaceae	03
24	Maruthani/ மருதாணி	*Lawsonia inermis*	Lamiaceae	02
26	Mamaram/ மாமரம்	*Mangifera indica*	Anacardiaceae	04
27	Vadumai/வாதுமை மரம்	*Terminalia catappa*	Combretaceae	05
28	Seemai agathi /சீமை அகத்தி	*Gliricidia sepium*	Fabaceae	08

There are 465 trees cultivated in which small trees, semi grown trees and grown trees of more than 14 families are planted. Shrubs like *Crotons, Duranta, Calotropis, Lantana*, *Nerium,* Abutilon and *Cassia* are the important genera to mention. A gardener is appointed to regulate water supply, weeding and manuring.

Trees renew our air supply by absorbing carbon dioxide and producing oxygen. The amount of oxygen produced by an acre of trees per year equals the amount consumed by 18 people annually. One tree produces nearly 260 pounds of oxygen each year. 1, 17,000 pounds of oxygen is produced by the vegetation present in the college campus per year. The staff and students are enriched with the surplus supply of oxygen by the green cover of the campus.

GREEN PRACTICES

a. Care is taken to maintain plastic free campus and use of plastics is either discouraged or kept to minimum.
b. Care is taken to maintain eco-friendly campus by using bicycles and public transports by staff and students. The parking shed for staff and students is just inside the campus, adjoining the gate. This arrangement helps to reduce noise pollution in the campus.
c. Administrative functions are carried out in computer online system to avoid unnecessary paper consumption.
d. Garden wastes are converted into fertilisers and used for the growth of plants and trees on the campus.
e. Proper drainage system has been constructed for all the buildings

f. The E- Waste generated from the hardware which cannot be reused and recycled are disposed through private agencies.

g. Awareness programmes highlighting the need for green practices are now and then conducted both inside and outside the campus by the NSS and NCC volunteers.

Green Audit In-charge:

Dr. S. A. NOOR MOHAMED,
Head & Associate Professor of Chemistry

01/09/2018

DR.S.A.NOOR MOHAMED
ASSOCIATE PROFESSOR & HEAD
DEPARTMENT OF CHEMISTRY
HAJEE KARUTHA ROWTHER HOWDIA COLLEGE
Uthamapalayam-625 533, Theni Dt.,

Members:

1. A. MAAJITHA BEGAM, Assistant Professor of Botany
2. A. M. RASHIDA BANU, Assistant Professor of Botany

Place: Uthamapalayam

Date: 01-09-2018

01/09/18.

PRINCIPAL
Hajee Karutha Rowther Howdia College
(Autonomous)
UTHAMAPALAYAM-625533.