# **GREEN AUDIT**



# ST. EDMUND'S COLLEGE SHILLONG



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St. Edmund's College

Shillong

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#### Green Audit Report

# Green audit team

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# Introduction

Green Audit is a method of systematically identifying, quantifying, recording, reporting, and analyzing elements of an institute's environmental diversity. Its goal is to examine environmental activities both inside and outside the concerned location that have an impact on the environment. It is a useful tool which helps in determining where and how they are using most of their resources. By identifying such features college can then consider how to implement changes and make a substantial impact within the campus. It can create health consciousness and promote environmental awareness, values, and ethics. It gives staff and students a greater knowledge of the campus's environmental impact. If self-enquiry is a natural and essential part of a good education, institutional self-enquiry may be said to be a natural and necessary part of a good educational institution. As a result, it is critical that the college assess its own contributions to a long-term future. The function of higher educational institutions in connection to environmental sustainability is growing more widespread as environmental sustainability becomes an increasingly crucial issue for the nation.

# **Objectives**

In recent years, a Green Audit of an institution has become increasingly significant for self-assessment, as it represents the organization's participation in addressing current environmental issues. Since its establishment, the institution has worked to keep our surroundings clean. As a result, the current green audit's goal is to identify, quantify, explain, and prioritize a framework for environmental sustainability that complies with applicable rules, policies, and standards.

The main objectives of carrying out Green Audit are:

- 1. To create a map of the college's geographical location
- 2. To document the college's floral diversity
- 3. To increase the carbon credit and greenery of the campus
- 4. To impart environment management strategies
- 5. Creating a database for corrective actions and future plans.
- 6. To address the gaps and offer suggestions for enhancing the college's Green Campus Status



Land Use Data of the St. Edmund's College, Shillong

Category	Percentage of Area	Area occupied (m <sup>2</sup> )	
	(Approx)	(Approx)	
Green Cover	42.59	55,009.52	
Buildings	46.29	59,792.61	
Open space	11.11	14,350.26	

#### Auditing for Green Campus Management

Green campus management auditing is a crucial procedure that can assist campuses in reducing their environmental effect, promoting sustainability, and displaying their dedication to environmental stewardship. For green campus, plants play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. A mature tree may remove up to 48 pounds of carbon dioxide from the atmosphere in a year and release it as oxygen. The amount of oxygen that the campus's trees release is beneficial for the campus's inhabitants. In other words, all the trees on campus are working hard to make the air cleaner for the inhabitants while they are busy studying and trying to get those good scores.

#### Methodology Adopted

The following elements were included in the approach used to conduct the institution's "green audit."

#### Onsite Visit

A week-long field visit was conducted to document the plants that are available in the campus. The documented plants within the campus were then identified. Evaluation of the Institution's green cover was the main goal of the visit.

#### Green Campus

Total number of plant species identified: 51

Total number of seasonal plant species: 11

Total number of plants (excluding seasonal plants) in the campus: 228

Sl. No	Scientific name	Family	Category	Quantity (Nos)
1	Aesculus indica	Sanindaceae	Ornamental	1
2	Almus nenalensis	Betulaceae	Medicinal	2
2	Azalog Sp	Ericaceae	Ornamental	5
3	Azurea sp	Disease	Omamental	1
4		Poaceae	Ornamental	1
5	Bougainvillea glabra	Nyctaginaceae	Ornamental	3
6	Callistemon lanceolatus	Myrtaceae	Ornamental	21
/	Camelila Japonica	Theaceae	Medicinal, Ornamental	4
8	Castanopsis inaica	Fagaceae	Medicinal	1
9	Cearlus deodara	Traceae	Ornamental	2
10	Cephalolaxus mannii	Solonococo	Ornamental	<u> </u>
11	Cestrum elegans	Lauraaaaa	Medicinal	1
12	Cinnamomum iamaia	Cupressocene	Ornamental	24
14	Cuppiomeria Japonica	Cupressaceae	Medicinal Ornamental	24
14	Cunningnumia iunceolaia	Cupressaceae	Medicinal Ornamental	14
16	Cupressus semper virens	Cupressaceae	Ornamental	2
17	Cupressus torniosu	Cycadaceae	Ornamental	1
18	Dracaena marginata	Asparagaceae	Ornamental	1
19	Flaeagnus wriformis	Flaeagnaceae	Medicinal	2
20	Fucalvatus globulus	Myrtaceae	Medicinal	2
21	Euphorbia ingens	Euphorbiaceae	Ornamental	1
22	Funhorbia nulcherrima	Euphorbiaceae	Medicinal Ornamental	3
23	Expucklandia populnea	Hamamelidaceae	Ornamental	10
23	Ficus elastica	Moraceae	Ornamental	2
25	Grevillea robusta	Proteaceae	Ornamental	2
26	Jacaranda mimosifolia	Bignoniaceae	Medicinal Ornamental	7
27	Juniperus sauamata	Cupressaceae	Ornamental	12
28	Juniperus virginiana	Cupressaceae	Ornamental	11
29	Lagerstroemia speciosa	Lythraceae	Medicinal	3
30	Livistona chinensis	Arecaceae	Ornamental	1
31	Magnolia grandiflora	Magnoliaceae	Medicinal, Ornamental	3
32	Mangifera indica	Anacardiaceae	Medicinal, Fruit	1
33	Melia azedarach	Meliaceae	Medicinal	1
34	Myrica esculenta	Myricaceae	Medicinal, Fruit	1
35	Pheonix reclinata	Arecaceae	Ornamental	1
36	Philodendron bipinnatifidum	Araceae	Medicinal	1
37	Phrynium pubinerve	Marantaceae	Medicinal	1
38	Pinus kesiya	Pinaceae	Ornamental	5
39	Pinus wallichiana	Pinaceae	Medicinal, Ornamental	1
40	Prunus cerasoides	Rosaceae	Ornamental	48
41	Prunus nepalensis	Rosaceae	Ornamental, Fruit	1
42	Pseudotaxus chienii	Taxaceae	Ornamental	1
43	Pterospermum acerifolium	Malvaceae	Ornamental	2
44	Rhododendron arboreum	Ericaceae	Medicinal, Ornamental	2
45	Sapindus mukorossi	Sapindaceae	Medicinal	1
46	Senna macranthera	Fabaceae	Ornamental	3
47	Svzvgium iambos	Myrtaceae	Ornamental	1
48	Terminalia chebula	Combretaceae	Medicinal	1
49	Thuja occidentalis	Cupressaceae	Ornamental	3
50	Thuia plicata	Cupressaceae	Ornamental	3
51	Zanthoxyllum armatum	Rutaceae	Medicinal	2

Sl. No	Scientific name	Family
1	Alstroemeria	Alstroemeriaceae
2	Antirrhinum	Plantaginaceae
3	Cineraria	Asteraceae
4	Dorotheanthus	Caryophyllales
5	Geranium	Geraniaceae
6	Petunia	Solanaceae
7	Phlox	Polemoniaceae
8	Ranunculus	Ranunculaceae
9	Rosa	Rosaceae
10	Schizanthus	Solanaceae
11	Viola	Violaceae

### Documentation of seasonal plant species of St. Edmund's College Campus

# Tagging of Plants

Some representative members of the identified plants within the campus were tagged. Tagging of plants provides an interactive tour of the campus to educate visitors and students.

## **Campus Farming**

In a specified part of the campus, the college has begun an innovative cultivation project. Some of the advantages of the campus faming are as follows:

- > Moderate physical activity of the students
- > Establishing green spaces that support healthy, sustainable lifestyles
- ➢ First-hand knowledge of food production
- ▶ Enhance student mental health and digital detoxification

#### **Routine Green Practices**

Every year within the campus World Environment Day, World Planting Day, World Water Day, and Ozone Day are celebrated. These programmes major goal was to raise students' understanding of the value of the environment, its preservation, and sustainable use of its resources. The programmes are delivered through seminars, art competition, interaction, and other events.



Fig: Some common flowering plants of the campus



Fig: Some angiosperms in the campus



Fig: Some gymnosperms of the campus



Fig: Fruit trees of the campus



Fig: Rosa varieties of the campus



Fig: Alstroemeria varieties of the campus



Fig: Cineraria varieties of the campus



Fig: Dorotheanthus varieties of the campus



Fig: Geranium varieties of the campus



Fig: Viola varieties of the campus



Fig: Petunia varieties of the campus



Fig: *Phlox* varieties of the campus



Fig: Rananculus varieties of the campus



Fig: Schizanthus varieties of the campus



Fig: Antirrhinum varieties of the campus



Fig: Some Succulents varieties of the campus

# **Findings**

St. Edmund's College, which was established in 1923, operates in an environmentally friendly setting. It has a long history of environmentally friendly actions, such as planting trees on a regular basis, preserving them, and maintaining them. Its land use is such that open land and plantation cover around 53.7 % of the entire area, resulting in a better and more sustainable campus environment. The plantation cover comprises of varieties of medicinal and ornamental plants that are found within the college campus have an essential ecological role. Besides improving air quality, reducing climate change, conserving water, preserving soil, supporting faunas, and regulating climate by reducing the effects of the sun, rain, and wind, the college's trees have improved the quality of life for not only the college fraternity but also the surrounding community. It has also been observed that the thick belt of big shade trees around the institution has been seen to reduce noise, dust, and storms. Besides ornamental and medicinal plants, the college has grown some fruit trees within the campus. Recently, the college has dedicated a site for cultivation in addition to routine green practices. So, while the students are studying and working smart to get those good grades, all the floras on campus are working smartly to create a better and sustainable environment for them.

# Suggestions

- 1. To ear mark a space within the campus and built a garden for medicinal and ornamental plants.
- It is proposed that additional indigenous and evergreen/fruit trees be planted inside the campus to increase carbon credits and greenery.