

**GREEN AUDIT REPORT**

of

St. Xavier's College, Ranchi,  
Dr. Camil Bulcke Path, Ranchi-1  
Jharkhand, India

Academic years 2020-2021

**Prepared by**

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“No matter how complex global problems may seem, it is we ourselves who have given rise to them. They cannot be beyond our power to resolve” By Daisaku Ikeda

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## **Executive Summary**

The rapid growth of human population demands utilization of more resources to fulfill the needs of humans. When we use natural resources available on the earth we deplete these resources especially non renewal resources and by doing this we pollute our surrounding.

Economic development too provides better facilities for humans but it also pollutes the environment if the development is not eco friendly, therefore it is essential for any educational institution to adopt the system of the Green Campus which is the centre of learning that students may know these issues and become eco sensitive. St. Xavier's College, Ranchi is deeply concerned and believes that there is an urgent need to address this fundamental problem and reverse the trend. Being a premier institution of higher learning, the college has initiated some programmes to keep college campus clean and green and to make students ecofriendly.

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the green policy adopted by the institution. The methodology includes: documentation of the initiatives, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. It works on the several facets of 'Green Campus' including **water use and**

management, energy use and conservation, alternative source of energy, waste management, e-waste management, green area management, mapping of biodiversity and eco consciousness level of the students of the institution, **other green initiatives (tree plantation, cleaning of the campus, poster presentation, mushroom cultivation, lac culture, green house, terrance farming, geotagging of plants, making documentary film ([http://you.be/\\_o2hkq8ndts](http://you.be/_o2hkq8ndts))).** With this in mind, the specific objectives of the audit are to evaluate the adequacy of the management control frame work of environment sustainability as well as the degree to which the departments are in compliance with the applicable regulations, policies and standards. It can make a tremendous impact on students' health and learning, college operational costs and the environment. The criteria, methods and recommendations used in the audit were based on the identified risks.

## **1. Introduction**

Green Audit of any college campus is a systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. It aims to analyze environmental practices within and outside the college campus, which will have an impact on the eco-friendly ambience. It was initiated with the motive of inspecting the work conducted within the college campus and departments whose exercises can cause risk to the health of inhabitants and the environment. Green Audit gives a direction to improve the condition of

environment. It also tells whether the campus is green or not and indicates the threatening area of risk. Green audit is assigned to the criteria 7 of NAAC, National Assessment and Accreditation Council which is a self governing organization of India which declares the institutions as Grade A, B++, B+ or B according to the scores assigned during the accreditation.

### **1.1 About the College**

St. Xavier's College, Ranchi is a NAAC (A) Grade college. It was established in 1944. College celebrated platinum jubilee in the year 2019. College has - Arts, Commerce, Science and Vocational courses faculties and more than 10,000 students are studying here.

The college is located on a beautiful campus of 6445.24 M<sup>2</sup> in the heart of Ranchi city. The latitude and altitude of college is 23.3680 N, 85.3263 E

### **Infrastructure**

**Campus has following buildings**



Main building





PG building



Auditorium



Gymnasium



Canteen



Jesuit residence



Chapel



Hostel buildings

### **College runs following departments**

#### **Science subjects**

<b>UG</b>	<b>PG</b>
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Botany	Botany
Chemistry	Chemistry
Geology	Geology
Mathematics	Mathematics
Physics	
Zoology	Zoology
Statistic	

### **Arts subjects**

UG	PG
Economics	Economics
Geography	Geography
Sociology	Political science
Political science	History
History	Hindi
Hindi	English
English	

### **Commerce subjects**



UG	PG
B.Com Accounts	M.COM

**Vocational subjects****Commerce Vocational Self Finance (B.Com)**

Advertising & Marketing (Adv & Mkt)

Office Management and Secretarial Practice (OMSP)

Banking & Insurance (Bnk & Ins)

International Accounting and Finance (IAF)

**Arts Vocational Self Finance (B.A.)**

English Language and Literature (ELL)

Journalism and Mass Communication (BJMC)

Animation & Interior Design (AID)

**Science Vocational Self Finance (B.Sc.)**

B.Sc. Bio Technology

B.Sc. Information Technology

B.Sc. Computer Application

**B.Voc Self Finance**

Building Construction Management (BCM)

Fashion Technology (BFT)

**Management Vocational Self Finance**

Business Administration Department (BBA)

Retail Management Department (BRM)

Financial Market Operation (BFMO)

The college has adopted the 'Green Campus' system for environmental conservation and sustainability. The goal is to manage efficient use of energy, water, waste and to reduce CO<sub>2</sub> level while creating a clean atmosphere where students can learn to eco sensitive and be healthy. The 'Green Campus' has been active for last many years by committees like **(Green campus committee, Eco Task Force by Zoology Dept, Geo Club by Geography Dept, Eco Club by B.Ed, Rotoract Club and Individual department)** that actively promote the various activities projects. The college administration works on the several facets of 'Green and Clean

Campus' including Water Conservation, Tree Plantation, Waste Management, Paperless Work, Energy conservation and alternative source of energy and Mapping of Biodiversity.

## **2. Objectives of the Study**

The main objective of the green audit is to promote the Environment Management and Conservation in the College Campus and to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out Green Audit are:

- To introduce and make students aware of real concerns of environment and its sustainability
- To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use on the campus.
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requires high cost.
- To bring out a status report on environmental compliance

## **3. Methodology**

The methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key

persons and data analysis, measurements and recommendations. The study covered the following areas to summarise the present status of environment management in the campus:

- Water use and management
- Energy use and Conservation
- Alternative source of energy
- Waste management
- E-waste management
- Green area management
- Mapping of Biodiversity
- Cleanliness of the Campus
- Green initiatives

#### **4. Observations and Recommendations**

##### **4.1. Water management**

This indicator addresses water consumption, water sources, irrigation, storm water appliances and fixtures. A water audit is an on-site survey and assessment to determine the water use and hence improving the efficiency of its use.

**a) Observations**

The study observed that in the college campus, well, bore well; pond and supply water are the four major sources of water. For storing roof water three rain water harvesting units and to collect ground water one pond is functional. Water is used for drinking purpose, canteen, toilets, laboratory and gardening and domestic purpose. Gardens are watered by using pipe/sprinkler irrigation system to save water. This is one of the unique steps towards greening practices. For drinking water, Kent RO system, water filter, water ATM and water cooler have been installed.

During the survey, no loss of water was observed, neither by any leakages, or by over flow of water from overhead tanks. There is a person in charge who runs water pumps and sees that there is no wastage of water. The data collected from all the departments is examined and verified.

On an average the total use of water in the college is 75,000 L/day,

Which include 12,000 L/day for drinking  
15, 000 L/day for toilets and urinals  
23,000L/day for domestic purposes,  
10,000 L/day for canteen

10, 000 L/day for gardening  
5,000 L/day for different laboratories.



One of the water harvesting systems

### **b) Recommendations**

- Need of monitoring is essential. In campus small scale/medium scale/large scale reuse and recycle of water system is necessary.
- Minimize wastage of water and use of electricity during water filtration process.
- Ensure that all cleaning products used have a minimal detrimental impact on the environment, i.e. are biodegradable and non-toxic.

## 4.2. Energy Use and Conservation

This indicator addresses energy consumption, energy sources, energy monitoring, lighting, appliance, natural gas and vehicles. Energy use is clearly an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment.

### a) Observations

Energy sources utilized by all the departments and common facility centre are **supply electricity, generator, solar, invertors.**

Total energy consumption is determined 245 KWH/Year by major energy consuming equipments. This data is obtained from electricity bill of the college. Electricity is used for tube light, fan, ACs, lab instruments, water cooler, freezers, computers, projectors, sound system, Xerox machine, welding and cutting Iron, CCTV and Camera, running water pumps and Elevators etc

Many place **tube light, CFL, LED** lamps are installed. All the departments and common facility centres are equipped with LED tube lights.

Approximately

Tube lights	627
Fans	715
Bulbs	252

LED bulbs	259
PL lights	325
Vapour light	9
Water motor	6
Lift	4
Centralized AC in the Jim and auditorium	15
ACs	180
Water cooler	16

are counted during survey. Besides these, photovoltaic cells are also installed in the campus as an alternate renewable source of energy. Equipments like computers are used with power saving mode. Also, campus administration runs switch-off drill on regular basis. In science department like Physics, Chemistry, Mathematics, Botany and Zoology electricity is shut down after occupancy time is one of the green practices for energy conservation.

### **Alternative source of energy**

Biogas plant is installed to generate fuel for the kitchen use for one of the building where about 60 students of the college stay and do their studies.





Biogas plant



Biogas used kitchen purpose

College has installed solar of 100kb power which reduces electricity bill.



Solar panel, capacity 100kb installed on the roof top of main building

Five solar street lights have been installed which gives light during night.

**b) Recommendations**

- Support renewable and carbon-neutral electricity options on any energy purchasing consortium, with the aim of supplying all college properties with electricity that can be attributed to renewable and carbon-neutral sources.
- Appreciate that it is preferable to purchase electricity from a company that invests in new sources of renewable and carbon-neutral electricity.
- Installation of LED lamps instead of CFL.

**4.3. Waste Generation**

This indicator addresses waste production and disposal of different wastes like paper, food, plastic, biodegradable, construction, glass, dust etc and recycling. Furthermore, solid waste often includes wasted material resources that could otherwise be channelled into better service through recycling, repair, and reuse. Solid waste generation and management is a burning issue. Unscientific handling of solid waste can create threats to everyone. The survey focused on volume, type and current management practice of solid waste generated in the campus. The different solid wastes collected as mentioned above. Physics and chemistry lab were using kerosene to produce fuel for the lab but they shift kerosene to LPG gas. Zoology lab now does not use animals for practical.

**a) Observations**

The total solid waste collected in the campus is **110 Kg/day**. Waste generation from tree droppings is a major solid waste generated in the campus. Fallen leaves are collected separately. Food waste is given to piggery. Some food waste, fallen leaves and vegetable waste are recycled using machine or by vermicomposting method in the campus itself. The waste is segregated at source by providing separate dustbins for Bio-degradable and non biodegradable waste. Segregation of chemical waste generated in the science laboratories especially in the chemistry lab is channelized into soak pit where chemical waste get neutralised. Single sided used papers reused for writing and printing in all departments. Important and confidential reports/ papers are sent for pulping and recycling after completion of their preservation period. Very less plastic waste mainly plastic water bottles (2 kg/day) are generated by some departments, office, canteen etc they are separated and given to kabadiwalas. Metal waste and wooden waste is stored and given to authorized scrap agents for further processing. Few glass bottles are reused in the laboratories.

The main purpose of this is to reduce disposable waste in the college campus. After complete process of vermicomposting, it is used as manure in the garden. Awareness program among farmers is also conducted in the village nearby.



Machine to recycle vegetable waste



vermicomposting

**Mushroom cultivation:** Botany students cultivate mushrooms during rainy season in the green house of the college.



Mushroom cultivation in the green house

**b) Recommendations**

- Reduce the absolute amount of waste that it produces from campus.
- Make full use of all recycling facilities provided by City Municipality and private suppliers, including glass, cans, white, coloured and brown paper, plastic bottles, batteries, print cartridges, cardboard and furniture.
- Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated.
- Single sided papers to be used for writing and photocopy
- Important and confidential papers after their validity to be sent for pulping.

**4.4. E-Waste Generation**

E-waste can be described as consumer and business electronic equipment that is near or at the end of its useful life. This makes up about 5% of all municipal solid waste worldwide but is much more hazardous than other waste because electronic components contain cadmium, lead, mercury, and Polychlorinated biphenyls (PCBs) that can damage human health and the environment.

**a) Observations**

E-waste generated in the campus is very less in quantity. The cartridges of laser printers are refilled outside the college campus. Administration conducts the awareness programmes



regarding E-waste Management with the help of various departments. The E- waste and defective item from computer laboratory is being stored properly. E-waste is given to some approved E-waste management groups.

#### **b) Recommendations**

- Recycle or safely dispose of white goods, computers and electrical appliances.
- Use reusable resources and containers and avoid unnecessary packaging where possible.
- Always purchase recycled resources where these are both suitable and available.

#### **4.5. Green Area**

This includes the plants, greenery and sustainability of the campus to ensure that the buildings conform to green standards This also helps in ensuring that the Environmental Policy is enacted, enforced and reviewed using various Environmental awareness programmes.

#### **a) Observations**

Campus is located in the vicinity of approximately 75 types (species) trees. Various tree plantation programs are being organized during the month of July and August at college campus and surrounding villages through NSS, Eco Task Force, Eco Club, Geo Club, Retroact club and various departments. This program helps in encouraging eco-friendly environment which provides pure oxygen within the institute and awareness among villagers. The plantation program includes various types of indigenous species of ornamental, wild medicinal



plant species and fruit and timber yielding trees. College also has green house. There are about 25 species of birds in the campus and many species of butterflies. Some of the plants, green house and green area are geotagged.



	<i>Hemionitis Selaginella, Polypodium, Psilotum</i>	
<b>Gymnosperms</b>	<i>Cycas, Zamia, Cuppress, Araucaria, Thuja, Pinus</i>	
<b>Angiosperms</b>	<b>D</b>	<b>Trees:</b> <i>Schleichera oleosa, Shorea robusta, Pterocarpus marsupium, Litsea sebifer, Atrocarpous integrifolia, Bassia Latifolia, Butea Monosperma, Coffea arabica, Psidium quajave, Tectona grandis, Mangifera indica,, Artocarpus integrifolia, Ficus religiosa, Ficus bengalensis, Ficus glomerata, Ficus cunia, Anacardium occidental, Dalbergia sisoo, Litchi sinensis, Michelia champaca, Jaccaranda, Annona squamosa, Polyalthia longifolia, Saraca indica, Adina cordifolia, Albezzia lebbek, Delonix regia, Pongamia pinnata, Aegle marmelos, Alstonia scholaris, Azadirachta indica, Melia Azedarach, Cassia fistula, Diospyros melanoxylon, Emblica officinalis, Gmelina arborea, Tamarindus indica, Peltophorum pterocarpum, Tabebuia, Cedrela toona, Citrus, Thavetia, Nerium, Calophyllum inophyllum, Carica papaya, Cinnamomum, Lagerstroemia, Moringa oleifera, Swietenia mahogoni, Syzygium cuminii, Grevillea robusta,</i>
	<b>I</b>	<i>cordifolia, Albezzia lebbek, Delonix regia, Pongamia pinnata, Aegle marmelos, Alstonia scholaris, Azadirachta indica, Melia Azedarach, Cassia fistula, Diospyros melanoxylon, Emblica officinalis, Gmelina arborea, Tamarindus indica, Peltophorum pterocarpum, Tabebuia, Cedrela toona, Citrus, Thavetia, Nerium, Calophyllum inophyllum, Carica papaya, Cinnamomum, Lagerstroemia, Moringa oleifera, Swietenia mahogoni, Syzygium cuminii, Grevillea robusta,</i>
	<b>C</b>	<i>indica, Peltophorum pterocarpum, Tabebuia, Cedrela toona, Citrus, Thavetia, Nerium, Calophyllum inophyllum, Carica papaya, Cinnamomum, Lagerstroemia, Moringa oleifera, Swietenia mahogoni, Syzygium cuminii, Grevillea robusta,</i>
	<b>O</b>	<i>Persea Americana, Prunus persica, Michaelia champaca</i>
	<b>T</b>	<b>Shrubs:</b> <i>Tecoma, Nyctanthus, Bogainvillea, Duranta, Vitex negundo, Crotton, Barleria, Bigonia, Euphorbia pulcherima, Jatropha, Acalipha, Lantana camara, Justicia, Calotropis gigantean, Hibiscus-rosa-sinensis, Murraya Koengi,</i>

		<i>Mussaenda, Woodfordia fruticosa</i>
<b>S</b>		<b>Climbers:</b> <i>Aristolochia, Quiscalis indica, Ipomea palmeta, Alamanda cathartica, Tinospora, Hemidesmus, Clerodendrum, Dioscoria bulbelifera, Thunbergia, Pasiflora edulis</i>
		<b>Herbs:</b> <i>Boerhaavia, Muhlenbekia, Diphanbakia, Oxalis, Achyranthus aspara, Desmodium, Euphobia hirta, Sonchus aspera, Oldenlandia, Lindenberzia, Majus, Solanum nigram, Coleus, Ageratum conyzoides, Synedrella nodiflora, Sida, Gamochaetia, Erigeron</i>
		<b>Flowers:</b> <i>Euphorbia milli, Salvia, Tagets, Petunia, Dahlia, Antrhinum majus, Adenum obessum, Ixora, Tropiolum, Bauhinia purpuria, Callistemon, Taberna Montana, Climatis, Jasmin, Celosia, Chrysanthemum</i>
		<b>Medicinal plants:</b> <i>Centella asiatica, Catharanthus roseus, Andrographis paniculata, phyllanthus niruri, Occimum sanctum, Celastrus paniculata, Rauwolfia, Emblica officinalis, Scoparia dulcis, Eclipta alba, Vernonia</i>
<b>M O N O</b>		<b>Trees:</b> <i>Yucca, Agave, Dracaena, Pandanus, Travellers palm, Royal palm, Bamboo, Phoenix acaulis, Cocos nucifera, Areca</i>
		<b>Shrubs:</b> <i>Tradscantia,</i>
		<b>Climbers:</b> <i>Asparagus racemosa,</i>

	<b>C</b>	<b>Herbs:</b> <i>Cynodon dactylon, Cyperus rotundus, Commolina, Cyanotis</i>
	<b>O</b>	<b>Flowers:</b> <i>Easter Lily, Vanda, Canna indica, Acorus calamus, Rhynchosyris</i>
	<b>T</b>	<i>retusa</i>
	<b>S</b>	<b>Medicinal plants:</b> <i>Gloriosa superba, Aloe vera,</i>
<b>Birds</b>	<i>Pigeon-Columba livia, House sparrow-Passer domesticus, Crow-Corvus splendens, Common myna- Acridotheres tristis, Parrot-Psittacula eupatria, Bulbul-Molpastes cafer, Cuckoo-Eudynamis scolopaccus, Indian black drogo, Night heron, Kingfisher-Halcyon smymensis, Cormorant little-Phalacrocrax niger, Sparrow-Ploceidae passer, Owl-Nocturnalis stigiformes, Hawk-Diurnus accipitridae, Falcon-falconidae falco, Turtle dove-Columbidae colombiformes, Muhkal-Saxicola macrohyncha, Bhurlunga, Indian Robin bird</i>	

### Biodiversity Richness of Trees

1	Kusum	<i>Schleichera oleosa</i>	08
2	Saal	<i>Shorea robusta</i>	04
3	Bija saal	<i>Pterocarpus marsupium</i>	03
4	Medha	<i>Litsea sebifer</i>	02
5	Kathal	<i>Atrocarpous integrifolia</i>	03
6	Mahua	<i>Bassia Latifolia</i>	02

7	Palas	<i>Butea Monosperma</i>	01
8	Coffea	<i>Coffea arabica</i>	12
9	Guava	<i>Psidium quajave</i>	03
10	Sagwas	<i>Tectona grandis</i>	22
11	Mango	<i>Mangifera indica</i>	14
12	Phadak	<i>Pterocarpous indicus</i>	03
13	Pipal	<i>Ficus religiosa</i>	03
14	Bargad	<i>Ficus bengalensis</i>	02
15	Gular	<i>Ficus glomerata</i>	02
16	Putkal	<i>Ficus cunia</i>	02
17	Kaju	<i>Anacardium occidental</i>	01
18	Shisham	<i>Dalbergia sisoo</i>	04
19	Litchi	<i>Litchi sinensis</i>	06
20	Champa	<i>Michelia champaca</i>	03
21	Jaccaranda	<i>Jaccaranda</i>	03
22	Sharipha	<i>Annona squamosa</i>	03
23	Ashok	<i>Polyalthia longifolia</i>	36
24	Raja Ashok	<i>Saraca indica</i>	03

25	Karam	<i>Adina cordifolia</i>		05
26	Siris	<i>Albezzia lebbek</i>		03
27	Gulmohar	<i>Delonix regia</i>		03
28	Karanj	<i>Pongamia pinnata</i>		03
29	Bel	<i>Aegle marmelos</i>		03
30	Chhatian	<i>Alstonia scholaris</i>		03
31	Neem	<i>Azadirachta indica</i>		04
32	Bakain	<i>Melia Azedarach</i>		03
33	Amaltas	<i>Cassia fistula</i>		02
34	Kendu	<i>Diospyros melanoxylon</i>		03
35	Amla	<i>Emblica officinalis</i>		02
36	Gamhar	<i>Gmelina arborea</i>		02
37	Imli	<i>Tamarindus indica</i>		01
38	Peela Gulmohar	<i>Peltophorum pterocarpum</i>		04
39	Basant Rani	<i>Tabebuia</i>		01
40	Tunch	<i>Cedrela toona</i>		09
41	Peela Kaner	<i>Thavetia</i>		02
42	Kaner	<i>Nerium</i>		02



43	Ruber plant	<i>Ficus elastica</i>	01
44	Papaya	<i>Carica papaya</i>	02
45	Bottle brush	<i>Callistemon lanceolatus</i>	07
46	<i>Lagerstroemia</i>	<i>Lagerstroemia</i>	03
47	Sahjan	<i>Moringa oleifera</i>	05
48	Mahogani	<i>Swietenia mahogoni</i>	36
49	Jamun	<i>Syzygium cuminii</i>	10
50	Siver Oak	<i>Grevillea robusta</i>	10
51	Butter fruit	<i>Persea Americana</i>	04
52	Satalu	<i>Prunus persica</i>	01
53	Champa	<i>Michaelia champaca</i>	03
54	Coconut	<i>Cocus nucifera</i>	06
55	X'mas tree	<i>Araucaria excelsa</i>	12
56	Kanak champa	<i>Pterospermum acerifolium</i>	01
57	Traveller plant	<i>Ravenala madagascariensis</i>	02
58	Charaigodhwa	<i>Vitex paniculata</i>	01
59	Rainbow shower tree	<i>Cassia bakeriana</i>	01

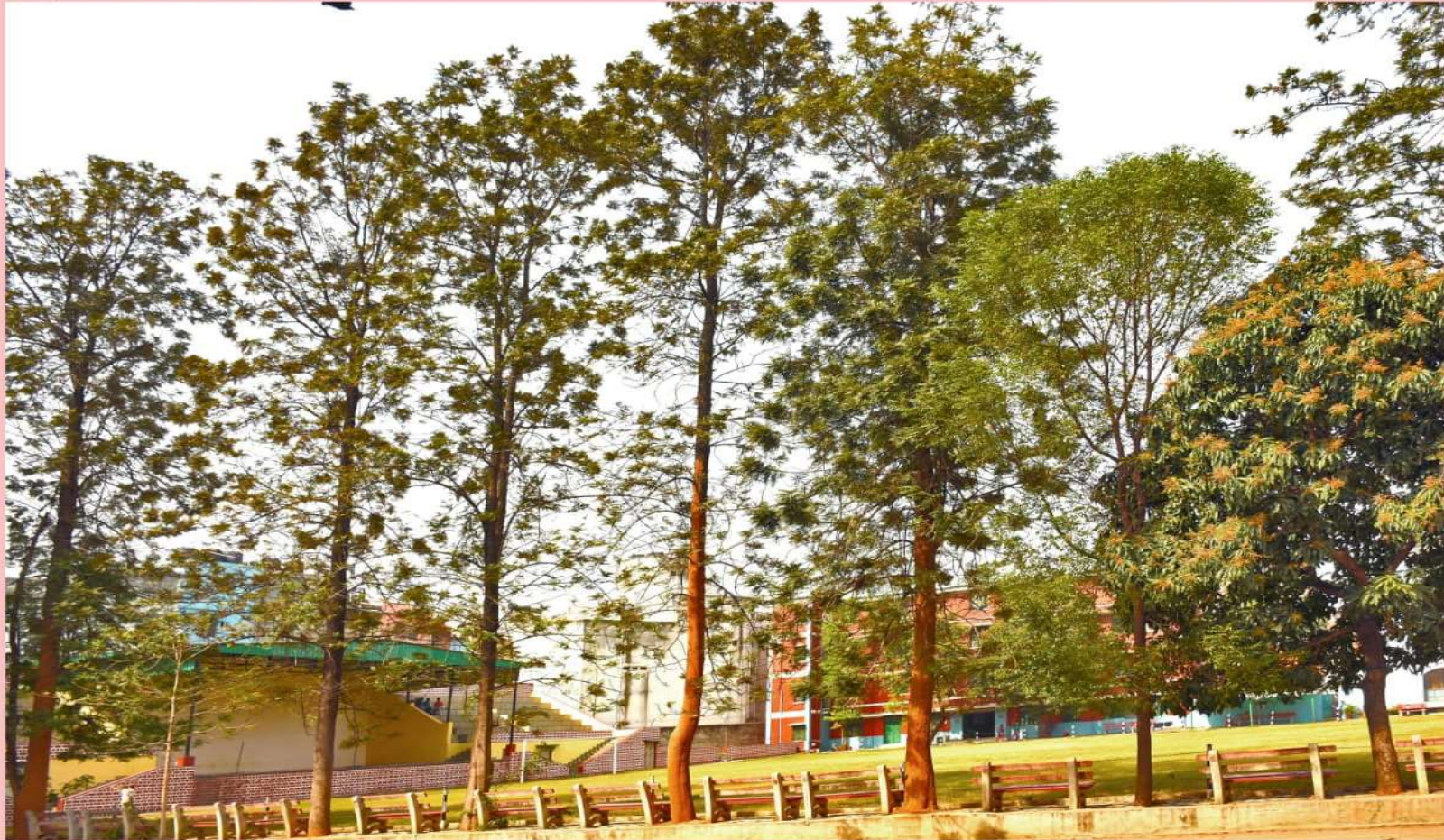
60	Kachnar	<i>Phanera variegata</i>	02
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Geotaged

photos:

Latitude: 20.951665800000004  
Longitude: 85.0985236

Ranchi, Jharkhand, India



**Silver Oak, *Grevillea Robusta***

Latitude  
Longitude

20; 57; 6.000000000000008...  
85; 5; 54.6799999999993015

Ranchi, Jharkhand, India



**MAHUA, *Madhuca Longifolia***

Ranchi, Jharkhand, India



**KUSUM, SCHLEICHERA OLEOSA**

RANCHI, JHARKHAND, INDIA



**HIPPEASTRUM SP.**

RANCHI, JHARKHAND, INDIA



**DESERT ROSE, ADENIUM OBESUM**

RANCHI, JHARKHAND, INDIA



**CYCAS, CYCADACEAE**



SWAMP ORCHID, *PHAIUS WALLICHII*



LATITUDE: 23.367953896845503  
LONGITUDE: 85.32629370689392

RANCHI, JHARKHAND, INDIA



Mushroom (wild mushroom) flora of the college campus.

 <p>1</p>	 <p>2</p>	 <p>3</p>	 <p>4</p>	 <p>5</p>
 <p>6</p>	 <p>7</p>	 <p>8</p>	 <p>9</p>	 <p>10</p>
 <p>11</p>	 <p>12</p>	 <p>13</p>	 <p>14</p>	 <p>15</p>



16



17



18

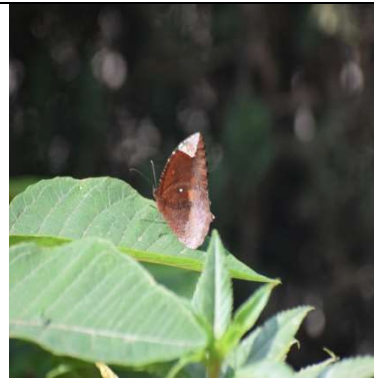


19

1. *Macrolepiota procera* 2. *Termitomyces clypeatus* 3. *T. heimii* 4. *Lycoperdon* 5. *Calvatia* 6. *Geastrum* appears first 7. *Geastrum* appears later 8. *Boletus edulis* 9. *Russula* 10. *Termitomyces* 11. *Amanita* 12. *Clitocybe* 13. *Armillaria* 14. *Termitomyces* (sand mushroom) 15. Stages in the breaking of outer peridium of *Geastrum*

### **Buffer flies in the College Campus**

















Green Area of the College



Nursery practice on the terrace (Adenium obesum, Stivia, Aloe vera, Citrus, Guava etc)



Naming of the plants,



Lac Culture on Kusum and Litchi Tree



Rain water harvesting and Fish Culture



Rohu, Katla, Grass calf, Mirror calf, Cat fish in the Pond



Green house

**b) Recommendations**

- Reviews periodically the list of trees planted in the garden, allot numbers to the trees and keep records. Give scientific names to the trees.
- Promote environmental awareness as a part of course work in various curricular areas, independent research projects, and community service.
- Create awareness of environmental sustainability and takes actions to ensure environmental sustainability.
- Establish a College Environmental Committee that will hold responsibility for the enactment, enforcement and review of the Environmental Policy. The Environmental Committee shall be the source of advice and guidance to staff and students on how to implement this Policy.
- Ensure that an audit is conducted annually and action is taken on the basis of audit report, recommendation and findings.
- Celebrate every year 5th June as 'Environment Day' and plant trees on this day to make the campus more Green.

**5. Conclusions**

Both teachers and students of the college are deeply conscious of environmental problems and their solution. The environmental awareness initiatives are substantial. The installation of



solar panels, paperless work system and waste recycling machine, vermicomposting and water ATM practices are note worthy. Besides, environmental awareness programmes initiated by the administration shows how the campus is going green. Few recommendations are added to curb the menace of waste management using eco friendly and scientific techniques.

This may lead to the prosperous future in context of Green Campus & thus sustainable environment and community development. As part of green audit of campus, I carried out the environmental monitoring of campus includes Illumination, Noise level, Ventilation and Indoor Air quality of the class room. It was observed that Illumination and Ventilation is adequate considering natural light and air velocity present. Noise level in the campus well is within the limit i.e. below 50 dB at day time.

## **6. Acknowledgement**

I am grateful to the Principal of St. Xavier's College for giving me this prestigious project to carry it out and allowing me to enter the new era of Green Audit in the College Campus. Further I sincerely thanks the college staff and students for providing me necessary facilities and co-operation during the audit. This helped me in making the audit, a success. Further I hope, this will boost the new generation to take care of Environment and propagate these views for many generations to come.

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**“The best way to predict future is to create it.” By Peter Drucker**