

Report of Green Audit (2022-23)

The green audit aims to analyse environmental practices within and outside the College campus, which will have an impact on the eco-friendly atmosphere. Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of college environment. It was initiated with the motive of inspecting the effort within the institutions whose exercises can cause threat to the health of inhabitants and the environment. Green auditing is the process of identifying and determining whether institutions practices are eco-friendly and sustainable. Traditionally, we are good and efficient users of natural resources. But over the period of time excess use of resources like energy, water, are become habitual for everyone especially, in common areas. Now, it is necessary to check whether our processes are consuming more than required resources? Whether we are handling resources carefully? Green audit regulates all such practices and gives an efficient way of natural resource utilization. In the era of climate change and resource depletion it is necessary to verify the processes and convert it in to green and clean one. Green audit provides an approach for it. It also increases overall consciousness among the people working in institution towards an environment.

OBJECTIVES OF GREEN AUDIT

The main objectives of carrying out Green Audit are:

- To examine the current practices, which can impact on environment such as of resource utilization, waste management etc.
- Curriculum enrichment through practical experience.
- Developing an environmental ethic and value systems in young people.
- To document the floral and faunal diversity of the college.
- To examine quality of ground water of campus that is used by students and member of the staff for drinking purpose.
- To report the expenditure on green initiatives during the last three years.

Green Audit Team of the College

Dr. Amandeep Kaur, Principal

Dr. Jagminder Kaur, Assistant Professor

Dr. Ajay Kumar, Assistant Professor

Dr. Geeta Kundi, Assistant Professor

Methodology

The purpose of the green audit of our institute is to ensure that the practices followed at the campus are in accordance with the Green Policy of the country. The methodology includes: physical inspection of the campus, observation, data collection and review of the documentation followed by data analysis.

Geographical Location of Campus

The College is situated in Sidhwan Khurd Village near Ferozpur Road. The College campus is spread over 13835.66 Sq. total build up area is 6818.39 Sq mt. It is situated between 30.7923 Latitude and 75.4670 Longitude near Ferozpur Road at Sidhwan Khurd. Constructed Covered area of the ground floor is 3055.36Sq.mt. first floor is 3041.39 and second floor is 721.64 Sq. mt. The College campus is shown in photos aerial view of the college campus.



Floral Diversity of the Campus

DETAILS OF TREES AND PLANTS IN CAMPUS

Sr. No	Botanical Name	Common Name
1	Cymbogon Citrus	Lime
2	Psidium	Guava
3	Vitis	Grapes
4	Terminalia catappa	Badam Tree
5	Cyanococcus	Blueberry
6	Hibiscus	Hibiscus
7	Moringa Oleifera	Drumstick
8	Ficus Benjamina	Ficus
9	Litchi Chinensis	Litchi
10	Cinnamomum tamala	Tej Patta
11	Cassia Angustifolia	Sanay

12	Vitex Negundo	Nirgundi
13	Ferula asafoetida	Hing
14	Tulsi	Saraca Indica
15	Murraya	karipatta
16	Gymnema Sylvestre	Gurmar
17	Withania Somnifera	Ashvagandha
18	Chamaecostus cuspidatus	Insulin
19	Stevia	Candy leaf
20	Eclipta Alba	Bharing Raj
21	Aloe Barbadensis miller	Aloevera
22	Azadirachta Indica	Neem
23	Nyctanthes arbor-tristis	Harsingar
24	Citrus Limetta	Mosami
25	Phyllanthus emblica	Amla
26	Ficus Carica	Anjeer
27	Mangifera Indica	Mango
28	Chukrsia Tabularis	Chukrsia
29	Prunus Persica	Aaru
30	Melochia Corchorifolia	Dake
31	Delonix	Gulmor
32	Cassia Fistula	Amaltas Golden
33	Wodyetia Bifucata	Foxtail Palm
34	Hyophorbe Lagenicaulis	Bottle Palm
35	Chamaerops Humilis	Fan Palm
36	Citrus Limon	Lemon
37	Syzygium Cumini	Jamun

Faunal Diversity of the Campus

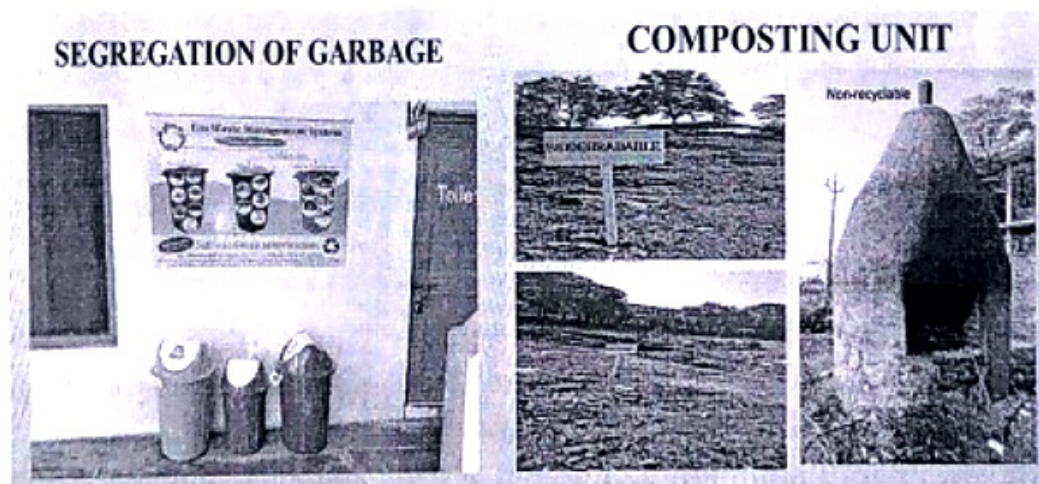
S.No.	Scientific Name	Common Name
1	Passer domestica	Sparrow
2	Psittacula eupatria	parrot
3	Acridotheres tristis	Maina
4	Columba livia	Pigeon
5	Pica pica	Neel kanth
67	Bubo bubo	Owl
8	Eudynamis scolopaccus	Koel
9	Corvus spendens	Crow
10	Canis lupus familiaris	Dog
11	Grus grus	Crane
12	Pavo cristatus	Peacock
13	Funambulus palmarum	Squirrel
14	Hemidactylus flavivirid	Lizard
15	Rana tigrina	Frog
16	Periplaneta americana	Cockroach
17	Pheritima prthuma	Earthworm
18	Gryllus linnaeus	Cricket

Water analysis report at the College Campus

Water quality analysis is important because it identifies pollutants and prevents water-borne diseases. Using contaminated water can result in severe illness. That's why it is important to ensure that drinking water is safe and clean from bacteria and disease. Eco club of the college has made an effort to check the drinking water supply in the college. For this purpose, the water testing kits were used. The water testing kits were brought from PAU, Ludhiana and test was performed as per the guidelines given by the expert. If any contamination was found in the water then remedial step was taken by the authority immediately.

Waste disposal at college campus

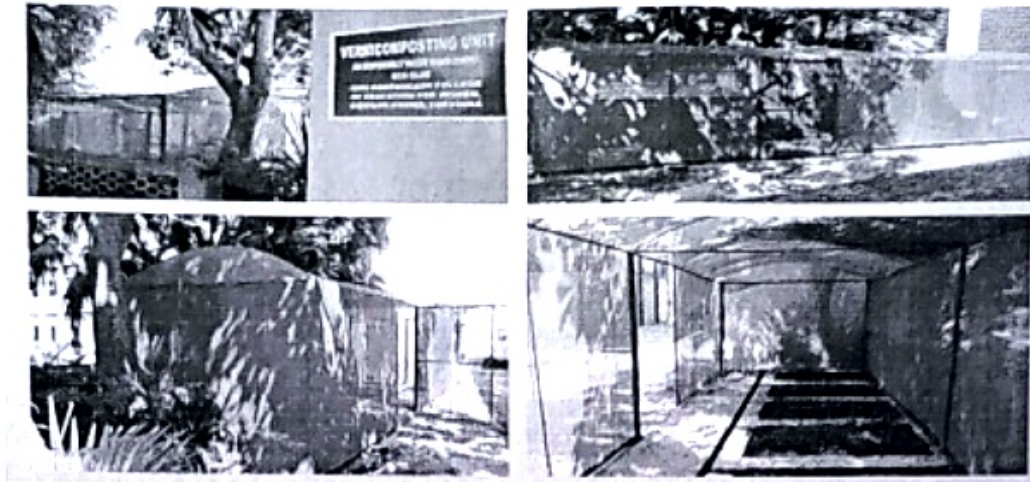
Waste management is the basic need for the proper functioning of an institution. GHG Harparkash College of Education for Women has two composting units. The Campus is plastic free zone where most of the work is paperless so that green practice is utilized. Total e-governance is there. Everywhere in college premises, separate dustbins are kept for the segregation of waste i.e. biodegradable and non-biodegradable (dry/wet litter). Total leaf fall is about 4kg/day swept by sweepers and disposed into land fill/pit. Only newspapers are disposed of through auction i.e. approximately 100 Kg newspapers per year. All the waste material of college premises is disposed of by the worker of the college in biodegradable and non-biodegradable units through the collection vehicle. In college premises, the main focus is on the minimal generation of waste.



Vermicompost Unit

Vermicompost pits and disposal of waste as the source of segregation itself.

VERMI-COMPOSTING



Transportation at College

Faculty of GHG Harparkash College of Education for Women, Sidhwan Khurd, Ludhiana commute by their own and most of the students use college transportation facilities. Students from nearby area are encouraged to use bicycles and two-wheelers rather than four wheelers which lead to fuel saving and also reduces carbon emission in the environment. Maximum faculty members use carpool that leads to reduction in the means of energy consumption raises employee' morale and reduces parking demand as well. It can be surely said to be economically and environmentally a good practice.

Electrical Power Consumption at college

College consumes an average 11 KV. The management of the college decides to replace CFL and tube lights with low-energy consuming LED bulbs and tube lights. In addition, the college has its own functional electric generator in case of emergency.

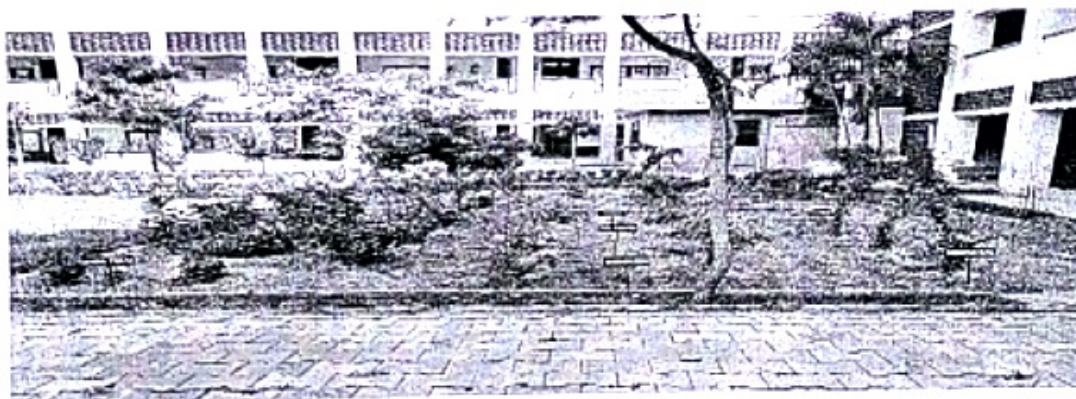
Solar Pannel Installation in the College Campus

For establishing the solar panels in the college, proposal from the Director, Solar First Energy Pvt. Ltd. was accepted by the college on 06-08-21. After reviewing various proposals sent by the different solar companies. The agreement for the establishment of 50 KWp On Grid by manufacturer TATA Power Ltd. and 10 KWp Off Grid Solar Panels by Luminous were made between the Solar First Energy Pvt. Ltd., SCF-45, Phase 1, Market Urban Estate, Jalandhar and G.H.G. Harparkash College of Education for Women, Sidhwan Khurd, Ludhiana on 27-08-21. After the installation of Bi-directional meter at two places in the college, Solar Panels in the college started working and the task of installation of Solar Panels was completed on 13-05-2022 in all aspects. With the Establishment of solar panel, the energy requirement of



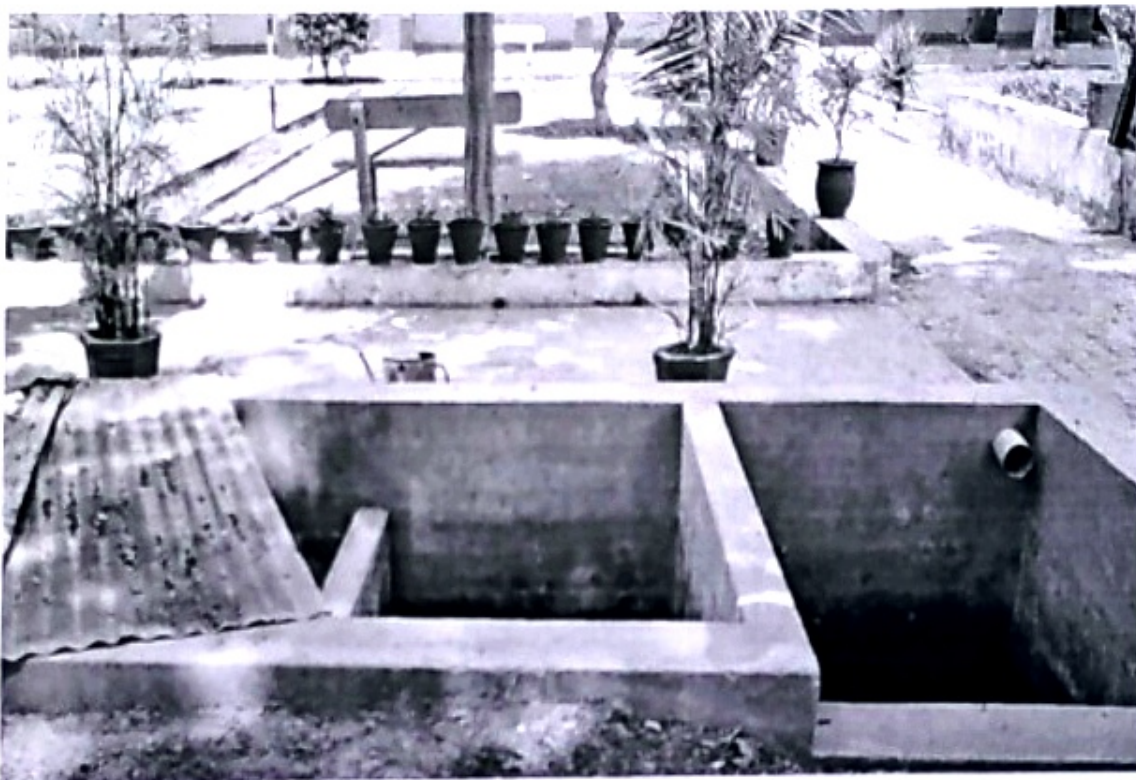
Development of Herbal Garden in the College Campus

Herbal Garden was established at G.H.G. Harparkash College of Education on 26.04.22 by Eco Club of the college. Many herbal plants like Hibiscus, Tejpatta, Nirgundi, Hing Tulsi, Cinnamon, Gurmar, Ashwgandha, Hing, Murraya, Insulin, All Spice, Stevia, Bhringraj, Aloe Vera, Sanay and Moringa (Sehajan) were planted in the garden. Growing various herbs in the garden will give students of the college an educational opportunity to learn about benefits of different herbs and the how this help to improve health and save money also. All the faculty members and students of the college participated in the establishment of herbal garden. Members of the Green Punjab Mission Team, International Charitable Trust were also present on this occasion. Mr. Karamjit Singh Sandhu appreciated the efforts put by the members of Eco Club of the college. He congratulated Principal, Dr. Amandeep Kaur for taking such of initiatives.



Development of Rain Water Harvesting System in the College Campus

Rain water Harvesting system was established at GHG Harparkash College of Education for Women, Sidhwan khurd, Ludhiana in September, 2022. The process of rainwater harvesting involves the collection and the storage of rainwater with the help of artificially designed systems that run off naturally or man-made catchment areas like- the rooftop, compounds, rock surface, hill slopes, artificially repaired impervious or semi-pervious land surface. The benefits of the rainwater harvesting system are helps in reducing the water bill, decreases the demand for water, promotes both water and energy conservation, it reduces soil erosion, stormwater runoff, flooding, and pollution of surface water with fertilizers, pesticides, metals and other sediments and it is an excellent source of water for landscape irrigation with no chemicals, dissolved salts and free from all minerals.



Expenditure on Green Initiatives during the Last Three Years

Financial Year	Tree plantation (Amount in Rs)	Development of Herbal Garden and maintenance of lawn (Amount in Rs)	Establishment of Solar Pannel and purchase of LED Bulbs (Amount in Rs)	Total
2020-21	NIL	NIL	NIL	NIL
2021-22	NIL	2200	3173530	319730
2022-23	NIL	NIL	8305	8305

Summary

After conducting the Green Audit, it can be concluded that this report assists in the process of attaining an eco-friendly approach for the sustainable development as well as institutional management. It is cleared from the green audit of the institution that the campus is lush green with sufficient floral and faunal diversity. Apart from this, the level of noise is also medium as well as the good environment of the campus. However, the use of five-star appliances should be increased as well as the use of LEDs to reduce electricity bills.

Suggestions

The following environmental education programs and policies should be implemented in the institution before the next green audit:

- Awareness about carbon footprint generation among staff and students so that there must be a decrease in it.
- Involvement of students and staff in environmental awareness campaigns to spread awareness in society.
- Reuse of the water shall be done instead of use of fresh water.
- The Management of College may consider on top priority that total 33% area is to be reserved for plantation.

Coordinator

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