

Sri Guru Gobind Singh College

Sector 26, Chandigarh



BEST PRACTICE

ENVIRONMENTAL SUSTAINABILITY

This document contains information regarding the following Green initiatives:

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- **The Practice**
 - A. Environment and Sustainability Policy**
 - B. Guru Nanak Sacred Forest: A Mini Urban Forest with Native Trees**
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TITLE OF THE PRACTICE: ENVIRONMENTAL SUSTAINABILITY

➤ OBJECTIVES OF THE PRACTICE

The College has taken the initiative to sensitise all the stakeholders about the importance of environment conservation and its role in Sustainable National Development. Keeping in mind the National Educational Policy 2020, National Biodiversity Targets 2020 and Sustainable

Development Goals announced by the United Nations, the College adopted the best practice of Environmental Sustainability. This best practice incorporates tradition and modernity for improving the quality of life, protection of the ecosystem and preservation of natural resources along with representing cultural diversity.

➤ **THE CONTEXT**

Focusing on Environmental Sustainability is significant to protect the environment from degradation by human activities and alarming climatic changes due to global warming. The College, as a socially conscious entity with a vision for the future, has come forward to take measures to preserve the environment by motivating and involving the younger generation and academia in practices beneficial to the environment. Drawing inspiration from the teachings of the *Gurbani*, the College aims at improving the ecosystem by planting native species of trees and creating their seed bank as a viable solution. Outreach environmental activities are conducted to sensitise wide group of stakeholders beyond campus. The faculty and students are facilitated to conduct studies, research and development pertaining to environmental issues. Tremendous efforts have been made to create social consciousness about environmental sustainability by involving youth and academia through collaboration with government and non-government organisations.

➤ **THE PRACTICE**

The College follows its Environment and Sustainability Policy while undertaking green initiatives in the campus.

A. Environment And Sustainability Policy

Policy

Document:

<https://sggscollege.ac.in/Downloads/POLICIES%2030%20MARCH.pdf#page=15>

B. Guru Nanak Sacred Forest: A Mini Urban Forest with Native Trees

An Initiative amalgamating the aspects of Environmental Sustainability and Heritage and Cultural Preservation

The College initiated a novel idea of creating a mini urban forest with an objective to promote a sustainable environment. The mini forest amalgamates the aspects of ecosystem diversity, curative diversity (a wide variety of medicinal plants) and cultural diversity (including spiritual

values) successfully. This habitation has flourished into a natural air-purifying dense forest with 550 trees comprising 42 different native species of the region planted in an area of 180 square meters. This novel initiative amalgamates the tradition by selecting species native to the region and modern Miyawaki technique thereby promoting natural restoration of land. A multi-layered natural forest is created by grouping the plants into different layers- shrub, sub tree, tree and canopy – in each 50 m. Outdoor display and Air Quality Display LED panels have also been installed. The forest grown by this methodology grows 10 times faster, 30 times denser and helps to produce more oxygen than that produced by regular plantations. It is developing into a hub of natural biodiversity and is a step towards reducing the carbon footprint of the region. This is a significant contribution towards the National Biodiversity Target 2020 of the Government of India which stresses on the need to spread awareness involving young minds and intelligentsia to play a positive role for restoration, conservation and sustainable use of the vulnerable ecosystem.

- **List of 42 Native Species Planted in the Mini Forest**

S.No.	Local Name	Scientific Name	Category
1	Semal	<i>Bombax ceiba</i>	Top Canopy
2	Bahera	<i>Terminalia bellirica</i>	Top Canopy
3	Arjun	<i>Terminalia arjuna</i>	Top Canopy
4	Phulai	<i>Acacia modesta</i>	Tree
5	Shisham	<i>Dalbergia sissoo</i>	Tree
6	Jhingan	<i>Lannea coromandelica</i>	Tree
7	Palash	<i>Butea monosperma</i>	Tree
8	Babool/ Kikar	<i>Vachellia nilotica</i>	Tree
9	Sohanjana	<i>Moringa concanensis/ Moringa oleifera</i>	Tree
10	Jand	<i>Prosopis cineraria</i>	Tree
11	Roheda	<i>Tecomella undulata</i>	Tree
12	Jamun	<i>Syzygium cumini</i>	Tree
13	Gular	<i>Ficus racemosa</i>	Tree

14	Papri (Indian Elm Tree)	<i>Holoptelea integrifolia</i>	Tree
15	Desi mango	<i>Magnifera indica</i>	Tree
16	Harar	<i>Terminalia chebula</i>	Tree
17	Mahua	<i>Madhuca longifolia</i>	Tree
18	Pilkhan (White Fig)	<i>Ficus virens</i>	Tree
19	Neem	<i>Azadirachta indica</i>	Tree
20	Peepal	<i>Ficus religiosa</i>	Tree
21	Bargad/Bohar (Indian Banyan)	<i>Ficus benghalensis</i>	Tree
22	Lasura	<i>Cordia myxa</i>	Tree
23	Amaltas	<i>Cassia fistula</i>	Tree
24	Khair/ Katha	<i>Acacia catechu/ Senegalia catechu</i>	Tree
25	Lasora / Goonda	<i>Cordia dichotoma/Cordia myxa</i>	Tree
26	Chamror	<i>Ehretia laevis</i>	Tree
27	Kharajal/Pilu/Meswak	<i>Salvadora oleoides</i>	Initial years Shrub & after Tree
28	Meethajal	<i>Salvadorapersica</i>	Initial years Shrub & after Tree
29	Dhonk/Dhauk/Dhok	<i>Anogeissus pendula</i>	Tree
30	Gum Arabic	<i>Acacia Senegal/Senegaliasenegal</i>	Tree
31	Karanj	<i>Millettia pinnata</i>	Tree
32	Harshingar	<i>Nycanthes arbor-tristis</i>	Shrub
33	Karir	<i>Capperis decidua/ Capparis decidua</i>	Shrub
34	Vasaka	<i>Justicia adhatoda</i>	Shrub
35	Karonda	<i>Carissa carandas</i>	Shrub
36	Guggul	<i>Commiphora wightii</i>	Shrub
37	Nirgundi	<i>Vitex negundo</i>	Shrub
38	Sandalwood	<i>Santalum album</i>	Tree
39	Clove	<i>Syzygium aromaticum</i>	Tree

40	Cardamom	<i>Elettaria cardamomum</i>	Tree
41	Curry leaves	<i>Murraya koenigii</i>	Tree
42	Sadabahar	<i>Catharanthus roseus</i>	Shrub

- **Virtual Tour of Guru Nanak Sacred Forest**

<https://youtu.be/KrqbR-8FtEs>

- **Relevance to National Mission/Priorities**

The creation of Guru Nanak Sacred Forest on the campus will contribute towards the National Mission and Environment Priorities of the Government in a big way by involving the youth and academia as evident from the various policies enlisted below:

1. The Government of India has time and again garnered people's attention and support towards the cause of the environment. Prime Minister Narendra Modi has launched numerous initiatives to safeguard the environment and steer India towards being a leader in restoration of Green Global Environment.
2. The United Nations Environment Programme (UNEP) named the Indian Prime Minister Narendra Modi and French President Emmanuel Macron as joint 'Champions of the Earth' in the policy leadership category.
3. A Green Skill Development Programme was launched in June 2017 by the Ministry of Environment, Forest, and Climate Change to focus on developing skills among youth in the environment and forest sector.
4. National Biodiversity Target 2020: The target of the Government under NBT (National Biodiversity) by 2020 is that the youth, right from their formative years, should be acquainted with the value of biodiversity and take positive steps to conserve and use it sustainably.
5. The Ministry of Environment, Forest and Climate Change will receive World Bank's Global Environment Facility Grant for India's Ecosystem Services Improvement Project (ESIP). As part of this, models will be developed and tested for improving forest quality through effective management of invasive alien species.

6. The Green India Mission (GIM) aims to improve forest quality over five million hectares and develop new forests over another five million hectares. The ESIP project in alignment with GIM will develop and implement innovative approaches and field-based activities for invasive species removal, replanting with native species and biological control. It will result in an enhanced national knowledge base to support the policy on containing the geographic spread of such invasive species.

C. Environment Committees in the College

The College has formed three committees, ***Dharat Suhavi Environment Society***, **Solid Waste Management Committee** and **Campus Beautification Committee** which work towards raising environmental consciousness to achieve sustainability towards biodiversity and maintain a greener campus.

Dharat Suhavi Environment Society



The term *Dharat Suhavi* has been derived from *Gurbani*, which literally means ‘Blessed Land’. The primary focus of the society is to work constantly towards creating awareness and sensitising the staff, students and community at large regarding sustainable environmental issues. The Society organises Environment Awareness Drives, holds Environment Education classes for the first year UG students, participates in projects of National Environment Awareness Campaigns and organises educational trips for students. The Environment Society takes part in planting trees on special occasions like *Van Mahotsav* every year. Keeping in view the 2021 global theme of ‘Forest Restoration – A Path to Recovery and Well Being’, various fruit and ornamental trees were planted. During the lockdown, various commemorative days related to the environment were celebrated by providing online platforms to students to

participate in various competitions and sensitising about the importance of environment preservation.

Solid Waste Management Committee functions towards proper waste disposal, segregation and management of waste generated in the college. The committee organizes awareness and cleanliness drives, workshops and expert lectures, and installation of various waste disposal methods on Campus.

Campus Beautification Committee functions towards raising and maintaining plant diversity in the campus green areas largely in the Botanical Garden with special emphasis on giving practical demonstrations to science students. The Botanical Garden also includes a special spot for raising native herbal and medicinal plants which are environmentally beneficial as well as economical to maintain. This garden is used as a central nursery for raising horticultural plants which are used to beautify the campus. Under the *Saugaat*– Gift-a-Sapling Scheme, saplings raised in the central nursery are gifted to various dignitaries and guests who visit the college on different occasions to raise environmental awareness.

D. Green Cover and Floral Diversity

Sri Guru Gobind Singh College has 10,281 sq ft of green cover with over 1200 varieties of plants, 1000 trees (approximately) and nearly 1000 other potted plants providing oxygen, improving air quality, climate amelioration, conserving water, preserving soil and supporting biodiversity. The pedestrian path in the campus is lined with mango trees, which provide a green canopy cover over the path. Fruit trees are planted all across the College campus to attract birds and frugivorous mammals. The green cover other than the mini forest includes Botanical Garden, Herbal Garden, *Barah Maha* Garden of Biodiversity, *Bebe Nanaki* Garden of Serenity, garden adjacent to the Cafeteria, Sports Grounds and Hostel Garden.

Faunal Diversity

The mini forest has improved the biodiversity index of the area by attracting many species of birds and insects, which are disappearing from the environment. The vast green cover and floral diversity of the College attracts huge faunal diversity comprising birds, insects, bees, wasps and squirrels etc. The students learn to appreciate their natural habitats and get acquainted with

their interactions within their ecosystems. The Lotus and Lily pond has *Gambusia*, a larvicidal fish, to control the breeding of mosquitoes. The College has also adopted a few dogs and cats to create an environment of dignity and respect between humans and animals. The vast green cover of the College also provides a resting place and food source to help migratory birds coming to Chandigarh reach their destination.

E. Waste Management

The College, in a constant bid to create a zero-waste campus, ensures that the campus waste is segregated at source and recycled or sold off to authorised vendors. The College continually tries to ensure the implementation of the 5R's: Refuse, Reduce, Reuse, Repurpose and Recycle.

- Colour-coded dustbins are placed all across the campus for segregation of wet and dry waste. Leaf litter is accumulated in the simple, bacterial and vermicomposting pits for biodegradation. The College has restricted single-use plastic and plastic bags on campus.
- The College is connected with the Municipal Corporation drainage system for management of liquid waste. The wastewater generated from air conditioners is reused for watering the gardens.
- The biomedical waste generated from the bacterial culture lab is autoclaved before being disposed of to avoid any contamination.
- Incinerator has been installed in Girls Common Room to dispose of sanitary waste.
- The College has a designated e-waste collection store and an e-waste collection box for periodic disposal of electronic waste from the authorised vendor. Printer cartridges are refilled and reused.
- Bio-reactor for horticulture waste has been installed in the Botanical Garden to manage horticulture waste.
- A Milk Bag Recycling Bin has been installed in the area behind the canteen.

F. Water And Energy Conservation

The College realises the importance of sustainable ecosystem as prescribed in numerous Government campaigns and commemorates important days pertaining to water and energy conservation such as *Jal Shakti Abhiyan*, *Akshay Urja Diwas* etc. The students as well as staff

are also sensitised regularly for undertaking such practices through several awareness drives in and beyond campus as outreach programmes in adopted villages and other public places.

G. Research And Development

Research and development is an important domain where the faculty and students of the College work diligently on the theme of environmental sustainability. Students from faculties of Science, Social Sciences and Languages undertake interdisciplinary research initiatives based on the native species grown in the mini forest. The faculty has presented and published several research papers along with noteworthy research projects.

H. Activities Conducted on Theme of Environmental Sustainability

Various activities are conducted throughout the session to promote environmental sustainability. The College took the opportunity and engaged a wider range of beneficiaries across the North Indian region by conducting various activities in blended mode, organised by Guru Nanak Sacred Forest Committee, *Dharat Suhavi* Environment Society, Campus Beautification Committee, NSS unit and various Departments of the College.

➤ EVIDENCE OF SUCCESS

A. Guru Nanak Sacred Forest: A Mini Urban Forest with Native Trees

The creation of the mini urban forest in the College has been of great significance towards documentation and preservation of genetic heritage. It involved a study and documentation of traditional ways of collecting and storing seeds of native species and helped to understand how tiny forest spaces can act as safe refuges for insects, birds and other fauna that are gradually disappearing from the ecosystem. It has successfully contributed towards promoting environment related policies of the government by mobilising people for this noble cause.



Entrance of Guru Nanak Sacred Forest



Air Quality Index LED Display



Board inside Guru Nanak Sacred Forest displaying common names, botanical names and pictures of species of native trees planted in the mini forest



Aesthetic Pathway developed around flourishing Mini Forest

A **Heritage Wall** was created in the Guru Nanak Sacred Forest with quotes on ecology taken from the Gurbani.



- **Plantation of Native Trees**

***Sandalwood, Cardamom and Clove* planted to Promote Biodiversity:** Saplings of Sandalwood, Cardamom and Clove were planted on February 15, 2022 in Guru Nanak Sacred Forest: A Mini Urban Forest. These were planted by the esteemed members of Sikh Education Society. This event was conducted to commemorate the Prakash Purab of Shri Guru Hari Rai Sahib Ji. This event is in consonance with the goal of 'Environmental Sustainability' and 'Heritage Preservation' promoted by the College. Clove and Sandalwood are often associated with humanist and environmentalist beliefs of Sri Guru Hari Rai Sahib Ji. The meal served at the event was made using traditional methods of preparation, and due respect was paid to the rich heritage of the region. Traditional Punjabi kheer made from Sugarcane juice was served.



• **Visit by Important Dignitaries to the Guru Nanak Sacred Forest: A Mini Urban Forest with Native Trees**

- i. **Dr Abdul Qayum**, IFS, Deputy Conservator of Forests, Department of Forest and Wildlife, Chandigarh Administration visited the mini forest as Chief Guest for plantation of Sandalwood and Clove. He lauded the sincere efforts of the College in creating balance between culture and ecology.
- ii. **Mr Samarth Sharma**, Consultant, MGNCRE, Ministry of Education, Govt of India visited the mini forest during the Campus Photography Competition held at Guru Nanak Sacred Forest.

● **Collaboration with Government Agencies**

The College collaborated with the following Government offices for assistance in further development and expansion of the mini forest at various stages:

Punjab Biodiversity Board (PBB); ENVIS Centre; Department of Environment; Punjab State Council for Science & Technology; CREST Chandigarh Renewal Energy Science & Technology Promotion Society; Forest & Wildlife Preservation Department; Department of Soil & Water Conservation; Department of Agriculture and Farmer Welfare, Dera Bassi, SAS Nagar; Punjab Mandi Board; Central Ground Water Board, Chandigarh; Punjab State Rural Development Board.

B. Green Cover and Floral Diversity

The extensive green cover of the College has contributed towards improving air quality, climate amelioration, conserving water, preserving soil and sustainable biodiversity. Different areas are covered with various types of plants, trees, shrubs, climbers etc. The pedestrian path in the campus is lined with mango trees, which provide a green canopy cover over the path. Fruit trees are planted all across the College campus to attract birds and other frugivorous insects etc.

- **The College has following Green Areas in addition to the mini urban forest:**

- i. **Botanical Garden**
- ii. **Herbal Garden**
- iii. ***Barah Maha* Garden of Biodiversity**
- iv. ***Bebe Nanaki* Garden of Serenity**
- v. **Garden Adjacent to Cafeteria**
- vi. **Sports Grounds**
- vii. **Hostel Garden**
- viii. **Pedestrian Friendly Pathways with Green Cover**

- i. **Botanical Garden**

The Campus Beautification Committee maintains the Botanical Garden and 5 lawns which add to the greenery and rich biodiversity in the campus. A plethora of seasonal and perennial flowering plants adorn the College. In addition to the annuals in the garden beds, approximately 500 seasonal flower pots were cultivated and nurtured in the central nursery inside the botanical garden. The garden presents a unique blend of beauty and culture, where each tree holds a different meaning to individual viewers. A sprinkle irrigation system has also been installed to provide ideal growth to plants and reduce the consumption of water.



Xerophyte and Succulent Section: A Special central area of the Botanical Garden with direct sunlight has been dedicated for cultivation of Xerophyte and Succulents. Various species of *Opuntioy Ferocactus* and other succulents like *Agaves* are growing here. A special attraction of this area is the vine-like cactus plant of dragon fruit *Hylocereus undatu*



Palmatum: A special area has been allocated for growing palms and cycads. Currently 7 species of palms and 2 species of cycads are growing in the palmatum.

Nursery and Seed Bank: This garden is used as a nursery for raising a plethora of horticultural plants. The saplings are later planted in various parts of the college. Some of these plants are gifted under the “Gift-a-Sapling” scheme to various dignitaries who visit the college on different occasions.



Composting Section: Vermicomposting and Bacterial composting Section has been created to supply nutrients and growth enhancing hormones plants. The compost is also useful to improve the soil structure leading to increased water and nutrient holding capacity.



A **Solar Green House and Fern House** is constructed in the College with the dimension of 10x6 m² with the GI pipe and green shade net. It is used to shield green plants from extreme environmental conditions and prepare seedlings. Micro-sprinklers are used to cultivate ferns, supply nutrients and enhance their growth.



ii. Herbal Garden

Herbal Garden has been set up in the Botanical Garden of the College established in 2016 under the aegis of Department of Environment, Chandigarh. The traditional and aromatic herbs like Tulsi, Mint, Coriander, Thyme, Rosemary, Oregano, Chives and Garlic, to name a few are flourishing. All these plants are important therapeutically, environmentally and educationally. Herbal Garden has a collection of approximately 100 species of medicinal plants like Mint, Coriander, Peppermint, Tulsi, Basil, Thyme, Oregano, Fenugreek, Cardamom, Clove, Bayleaf,

Kewda, Brahmi, Ashwagandha, Vacha, Lemon, Lemongrass, Calotropis, Fennel, Chives, Turmeric, Ginger etc. which aid in teaching of Ethnobotany and in research by students of Botany, Biotechnology and Chemistry. For the above said purpose, these plants are cultured and maintained annually at their designated areas. The produce of plants like Cherry tomatoes, Lemons, Papaya, Plum, Guava, Grapes, Peaches, Mango etc. on-campus are collected and distributed amongst students and the under-privileged. They also attract a rich diversity of fauna in the campus. Name plates with Botanical name, common name and uses are displayed thus raising awareness and consciousness about nature among students.



Flowering plants: Dahlia, Chrysanthemum, Zinnia, Poppy, Dianthus, Petunia, Phlox, Marigold etc. are among the numerous flowering plants that have fetched many laurels to the College in various flower shows.



Saplings of Seasonal Plants

Seasonal Flowers on Campus

Fruit Plants: The College has a wide variety of indigenous and exotic fruit trees such as mango, jackfruit, amla, pear, plum, peach, jamun, lemon, mausami, grapevine, dragon fruit. To commemorate International Day of Forests, as many as 20 different species of fruit trees were planted.



Grapes



Guava



iii. *Barah Maha* Garden of Biodiversity

The concept of *Barah Maha* Garden of Biodiversity involves study and plantation of flowering plants which will attract birds, butterflies and honey bees, enriching the faunal diversity and making the garden pollinator-friendly. The Garden of Biodiversity is aptly named from our rich heritage. *Barah Maha*, meaning ‘Twelve Months’, describes the months of the Indian Lunar Calendar and it is in the form of Calendar poetry, a collection of hymn-verses composed by Guru Nanak Dev ji.



iv. Bebe Nanaki Garden of Serenity

The Garden of Serenity adds to the environment sustainability and aesthetics of the campus. This garden is a reflection of the spiritual radiance of Bebe Nanaki, the elder sister of Guru Nanak Dev Ji, after whom it is named.





v. Garden Adjacent to Cafeteria



vi. Sports Grounds



vii. Hostel Garden Aerial View



viii. Pedestrian Friendly Pathways with Green Cover

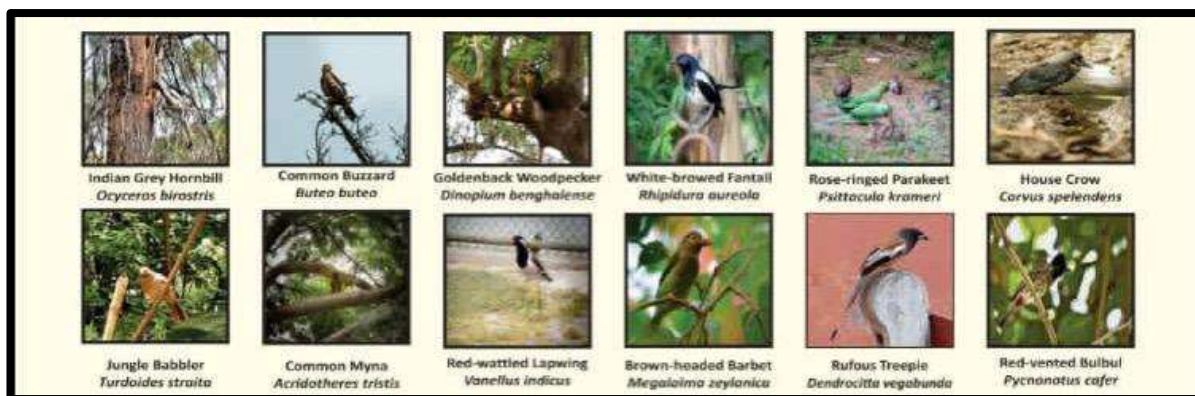


The pedestrian path of the College is lined with shady heritage mango trees, which provide a green canopy over the path.

C. Faunal Diversity

In addition to the floral diversity, the College also houses a rich faunal diversity.

BAAZ: Bird Watcher's Society is a novel initiative to study, observe and archive information on varieties of birds, especially those particular to the campus and region. The Society seeks to encourage the conservation of birds in their natural environment. This will cultivate the instinct of wildlife conservation and environmental leadership in the youth. The students are actively participating in collecting and cataloging the E-Bird Data.



PAWS Humane Society for Animal Assisted Therapy is a unique, first of its kind initiative which aims to sensitise students about animal welfare, facilitate an environment of dignity and respect between humans and animals and to promote compassion and empathy for all living beings.



- **Bird Diversity**

The E-bird data collected from the campus is evidence of increasing bird diversity on the campus it includes Mynah, Sparrow, Parrot, Pigeon, Shrike, Dove, White-checked Bulbul, Himalayan Bulbul, Budgerigar, Red Turtle Dove, Warbler, Spotted Munia, Ashi Prinia, Hoopoe, Barbet, Indian Robin, Baaz, kingfisher, Koel and many other birds even Chandigarh State bird Indian Grey Hornbill has also been spotted in mini forest. Bird feeders are placed in different parts of the College in order to provide a secure source of food and water during summer season.

- Gambusia fish are there in the lotus and lily ponds to control the breeding of mosquitoes. Other than that, the pond also has dragonflies, frogs, snails. In summer, the pond provides water for pollinators like bees and wasps. The College has a steady

population of squirrels. Insects belonging to 7 common orders (Odonata, Diptera, Hymenoptera, Hemiptera, Isoptera, Coleoptera and Lepidoptera) are found in the campus. Many nests of *Polistes*(wasps) are seen in the campus.



D. Waste Management

The College provides a safe and healthy environment for students and staff by adhering to the guidelines of Solid Waste Management 2016 issued by Government of India, Ministry of

Environment, Forest and Climate Change, New Delhi in a phased manner. The College, in a constant bid to create a zero-waste campus, ensures that the campus waste is segregated at source and recycled or sold off to authorised vendors. The College constituted the Swachhata Committee in 2018, which consisted of teaching, non-teaching, cleaning staff and the Student Council with the aim to follow the 5R's: Refuse, Reduce, Reuse, Repurpose and Recycle.

- **Solid Waste Management**

- i. Solid waste is segregated into wet (biodegradable) and dry (non-biodegradable) waste. For smooth and efficient waste management, marked and colour-coded dustbins are placed across the campus. These are sent for disposal and recycled as per standard procedures by the authorised vendors.



- ii. Wet waste generated in the College Mess and Canteen is collected by local pig farmers on alternate days.

- iii.** Management of Leaf litter: The leaf litter generated in the campus is composed in a composting unit comprising bacterial, vermicomposting, simple composting pits and a vermiwash unit. These units were made operational on the campus which also provided hands-on training to students.



- iv.** Waste paper generated during the house examinations is sold periodically to the paper-recycling vendors as per University guidelines.
- v.** Broken furniture, sanitary items, pipes and other construction and demolition-related wastes are given to the authorised vendor for proper disposal.
- vi.** Laboratory machinery and equipment which becomes obsolete, unusable or beyond economical repair is written-off and given to government-authorised vendors.
- vii.** An incinerator has been installed to dispose of sanitary waste.



- viii.** Milk bag recycling bin has been installed in the college. MOU has been signed with the Milk Bag Recycling Team. A recycling vendor recycles the milk bags every month.

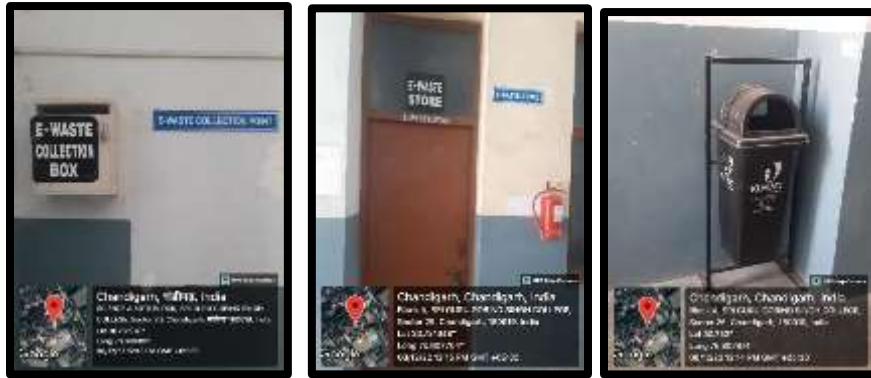


- ix. A Bio Reactor has been installed on campus to effectively manage horticulture waste.



- **E-Waste**

An E-waste collection bin is installed in the E-waste store for the proper disposal of electronic products that are unwanted, not working, and nearing or at the end of their useful life.



- **Biomedical Waste**

The biomedical waste generated from bacterial culture is autoclaved at 121°C under 15 lbs pressure for 30 minutes before being disposed of to contain the spread of unwanted bacterial cysts and spores.



- **Initiatives for Reduce, Reuse, Recycle**

- Ban on Single-Use Plastic in Campus:** Single-use plastic, including plastic cold drink bottles less than 1 litre, is banned in the College premises. The students and staff are encouraged to adopt use eco-friendly products for reducing the use of plastic. The use of stainless steel utensils is promoted in

canteen and hostel mess. During celebration of Founder's Day and other religious occasions eco-friendly green *pattals* are used to serve food in *Langar*.



ii. International Plastic Free Day is celebrated by NSS by launching campaigns on 'No plastic Use' and 'Reuse Before Recycle'.

<https://www.facebook.com/watch/?v=581518552761118>

<https://www.facebook.com/NSSSGGS26OFFICIAL/posts/2470469529910018>

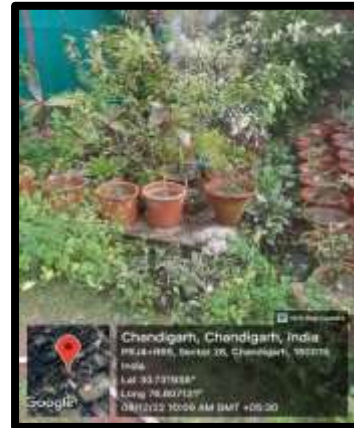
iii. Promoting Paper-Less Initiatives

- a) Office automation has largely reduced the use of paper for administrative purposes including maintenance of records, leave application etc.
- b) Internal notices and communications regarding admissions, examination, fees etc. are done through email and broadcasting messages.
- c) The library is partially automated with bar-coded books. Library membership smart cards are issued to students to get access to these books. The College library has e-library facilities with INFLIBNET, N-List and DELNET.
- d) Most of the storage is in digitised form in the library, laboratories and various departments.
- e) Prints and photocopies are taken on both sides of the pages to avoid excess paper usage.
- f) The single side printed papers are reused for internal office work.

E. Water And Energy Conservation

- **Water Conservation and Rainwater Harvesting Initiatives**

- i. Rainwater Harvesting Unit has been installed to reuse the rainwater collected from the rooftop of Gurudwara Sahib.
- ii. Water storage tanks have been installed for reuse of water in Botanical Garden. Rainwater from rooftop of boys hostel is stored in the water tank of Botanical garden to water the plants



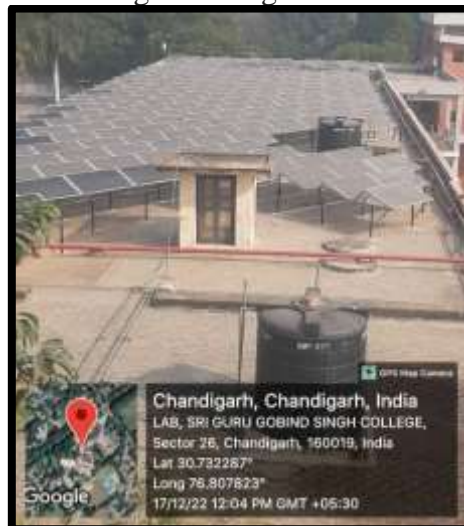
- iii. Plantation of drought-resistant plants such as *Desi Beriyan* (*Zizyphus* sp.), Jand (*Prosopis*), *Bougainvillea*, Karir (*Capparis*), Amaltas (*Cassia fistula*), *Aloe vera*, *Sedum*, *Sansevieria* (Mother-in-law's Tongue), *Euphorbia*, *Kalanchoe*, *Agave*, etc. is encouraged.
- iv. Treated tertiary water is used for watering the lawns, herbal garden and playgrounds. This helps in preventing the wastage of potable fresh water.
- v. Grey water generated from washrooms is connected to the Municipal Corporation Sewage system with a well maintained drainage system of the College.
- vi. To overcome water shortage, watering cans are used for irrigation instead of water pipes
- vii. The water dripping from the air conditioners of the administrative office is used to water the plants in front of the Administrative office.



viii. Overflowing of rooftop tanks is avoided with the floaters.

ix. **ENERGY MANAGEMENT**

i. A Solar Power Plant with a capacity of 100 kw is installed on the roof of Boys' Hostel and College buildings.



Solar Panels on the rooftop of Boys Hostel of the College

ii. Solar lights are also installed in the College premises



Solar Light in Boys Hostel



Solar Light in Bebe Nanaki Garden

- iii. Committed efforts are being made by the College to reduce the carbon footprint by installing power efficient electricity devices such as 5 star energy-efficient AC units, LED lights, UPS connected systems.
- iv. Audit of energy efficient heating, cooling, lighting and water systems in the campus has been conducted.

F. Research And Development

- An **Observation and Research Centre** has been created in the Guru Nanak Sacred Forest: A Mini Urban Forest with Native Trees, to involve students and faculty of various streams. Various observations and studies are underway on growth of the mini forest under different conditions characterised as follows:
 - i. Plants have been grouped into different layers – shrub, sub tree, tree and canopy – in each sq m. Such a multi-layered dense green forest will eventually become maintenance-free due to the *Miyawaki* technique used during plantation.
 - ii. 100 % organic, zero pesticides
 - iii. Natural biodiversity habitat for pollinators
 - iv. More CO₂ absorption and sequestration
 - v. SPM reduction and ground water recharge
 - vi. Soil conservation
 - vii. Regeneration of ecosystem



View of Observation and Research Centre in the mini forest

Students of the Department of Botany and Zoology are involved in the study of restoration of native plant habitat vital to preserving biodiversity since it forms the ecological basis upon which life depends. The mini forest has improved the biodiversity index of the area by attracting many species of birds and insects, which are disappearing from the environment. Students of Chemistry and Biotechnology are involved in projects for *in vitro* antioxidant potential and phytochemical screening of the native species of trees. In a way, this forest has provided a platform for inter-disciplinary research. Students of History, Literature and Religious Studies are involved in studying and preserving the historical, cultural and religious significance of various species of trees growing in the mini forest. Many noteworthy research publications, presentations and projects pertaining to environmental issues have been undertaken by the faculty.

- **The College Annual Magazine *Agammi Jyot*** offers equal platform to all students and teachers to express their literary views on various themes in different sections divided into English, Punjabi and Hindi language. *Agammi Jyot* 2021-22 was dedicated to Environmental Sustainability. It aimed to mobilise the youth towards environmental sustainability and the brilliant articles by students and faculty are evidence enough for the foundation of such a productive involvement.



- **Research undertaken by Faculty on issues pertaining to Environment**
 - i. **Dr Inderpal Pasricha, Dr Mandeep Kaur Dhami**, co- authored 02 book chapter ‘Overview of E-waste Status in Indian Scenario in the book E waste in India Management, Challenges & Opportunities’ with 2 others published by ‘Authorspress’, New Delhi ISBN: 978-93-91314-55-2
 - ii. **Ms Khushwant Kaur and Ms Meena Jindal** co-published a book chapter ‘Overview of E-waste Status in Indian Scenario’ with 2 others in the book ‘E-waste in India: Management, Challenges and Opportunities’- Volume I, ISBN: 978-93-91314-55-2.
 - iii. **Dr Kirtanjot Kaur** co-authored a book chapter ‘Advance remediation technologies for the removal of organochlorine from water and wastewater. In: Mohammad H. D., Rama R. K., Loannis A.’ in the book *Pesticides Remediation Technologies from Water and Wastewater* published by Elsevier ISBN: 978-0-323-90893-1
 - iv. **Dr Inderpal Pasricha and Dr Mandeep Kaur Dhami** presented a paper ‘Afforestation and Conservation of Native Plants for Sustainable Development – A Study of Guru Nanak Sacred Forest, Sri Guru Gobind Singh College, Chandigarh’ in the National Seminar on Good Governance and Sustainable Development organised by Deptt of Public Administration, SGGS College, Chd, May 04, 2022.
 - v. **Dr Kanwaljit Kaur Marwaha** presented a paper ‘Climate Change and Sustainable Development’ in the International Conference on Economics of Earthonomics: Shifting Paradigm, Policy Paralysis, and Worsening Sustainability organised by Dept of Economics, BPSMV, Sonapat on Mar 09-11, 2022.
 - vi. **Ms Meena Jindal** presented a paper ‘Afforestation and Conservation of Native Plants for Sustainable Development- A Study of Guru Nanak Scared Forest, Sri Guru Gobind Singh College, Chandigarh’ with 3 others in National Seminar Sponsored by Indian



Council of Social Science Research North West Regional Centre, Chandigarh, May 04, 2022.

G. Activities Conducted on Theme of Environmental Sustainability

During the session 2021-22, the College has successfully engaged students through various activities and has sensitised them about the significance of conserving the environment and the ethics pertaining to prudent use of natural resources.

- **Tree Plantation Drives**

The College conducted various tree plantation drives under *Dharat Suhavi* Environment Society, Campus Beautification and NSS Unit.

Plantation Drives		
Title of the Activities	Description of the Activities	Proofs of the Activities
<p>i. Commemoration of Prakash Purab of Sri Guru Hari Rai Sahib Ji</p> <p>Feb 15, 2022</p> <p><u>Organising committees:</u> -Guru Nanak Sacred Forest -Dharat Suhavi Environment Society</p>	<p>A Tree Plantation Drive was organized to commemorate the Prakash Purab of Sri Guru Hari Rai Sahib Ji.</p> <p>Cloves and Sandalwood, associated with the humanist and environmentalist beliefs of Sri Guru Har Rai Sahib Ji, were planted in Guru Nanak Sacred Forest.</p> <p>Traditional Punjabi kheer made from sugarcane juice was served on the occasion.</p>	  <p>Chandigarh, Chandigarh, India PRJ4+RR5, Sector 26, Chandigarh, 160019, India Lat: 30.732476° Long: 76.807244° 15/02/22 12:53 PM</p>

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**ii. NCC DAY
Nov 28, 2021**

Organising committee:

- NCC army senior wing for Girls
- NCC Naval Wing

A One-Day Camp was organized at NCC's adopted village, Chaomajra to celebrate NCC Day on Nov 28, 2021. A **Cleanliness Drive and Tree Plantation** were conducted at the Gurudwara Sahib and Primary School of the village.

<https://www.facebook.com/photo/?fbid=2776242179332750&set=pcb.2776242872666014>



iii. Commemoration of the Prakash Purab of Guru Nanak Dev Ji.

Nov 18, 2021

Organising committee:

- Guru Nanak sacred forest
- Rotaract club
- PG department of English

Sacred and Healing Herbs were planted in the area of *Balihari Kudrat* to commemorate the Prakash Purab of Guru Nanak Dev Ji.

<https://www.facebook.com/Official.SGGSC.Sector26Chandigarh/photos/a.335992347160505/1065312710895128/>



iv. Green Diwali

November 03, 2021

Organising committee :

Guru Nanak Sacred Forest Committee

Dharat Suhavi Environment Society

Students and faculty planted saplings to encourage the celebration of the festival of lights in an eco-friendly manner.

<https://www.facebook.com/Official.SGGSC.Sector26Chandigarh/photos/a.335992347160505/1056232361803163/>






SRI GURU GOBIND SINGH COLLEGE
Sector 26, Chandigarh

GURU NANAK SACRED FOREST AND DHARAT SUHAVI ENVIRONMENT SOCIETY

Date : November 3, 2021
Time : 12.00 p.m
Venue: Baranaha Garden

Chandigarh, Chandigarh, India
5005 COLLEGE, Sector 26, Chandigarh, 160019, India
Lat: 30.731358°
Long: 76.807728°
03/11/21 12:00 PM

<p>v. Inauguration of Wildlife Week</p> <p>October 01, 2021</p> <p><u>Organising Committee:</u></p> <p>PG Department of Zoology</p>	<p>Sweet Tamarind were planted on Campus during the inauguration of Wildlife week. The first sapling was planted at Sports Ground.</p>	
<p>vi. Plantation Drive of Herbal Plants in Herbal Garden</p> <p>September 16,2021</p> <p><u>Organising Committee:</u></p> <p>Guru Nanak Sacred Forest Committee</p> <p>Dharat Suhavi Environment Society</p> <p>Campus Beautification Committee</p>	<p>The event was organised to celebrate World Ozone Day. 50 saplings of medicinal plants were planted in the Herbal Garden of the College. An Online Poster was shared to spread awareness about the usage of indigenous medicinal plants.</p>	

<p>vii. Combating Carbon Footprints</p> <p>September 09,2021</p> <p><u>Organising Committee:</u> Guru Nanak Sacred Forest Committee</p> <p>Dharat Suhavi Environmental Society</p>	<p>The Workshop concluded with the plantation of Dhak saplings, state flower of Chandigarh in the Guru Nanak Sacred Forest.</p>	
<p>viii. World Nature Conservation Day</p> <p>Jul 28, 2021</p> <p><u>Organising committee:</u> -NCC Naval Wing</p>	<p>33 Cadets of NCC Naval wing participated in a Tree Plantation Drive to celebrate World Nature Conservation Day on Jul 28, 2021. This was done to spread awareness regarding the conservation of trees and to preserve nature.</p>	

- **Distribution of Saplings as Community Outreach Programme**

- i. Under the **Eco-green Project ‘Saugaat -Gift-a-Sapling’** started in 2019, the College felicitates all visiting dignitaries and guests with herbal/flowering plants as a community outreach programme. More than 200 dignitaries visiting the campus were felicitated with the saplings cultivated in the Botanical Garden of the College.



● **Competitions and other Activities**



Competitions and Other Activities		
I. Competitions		
Title of the Activity and Organising Committee	Outcomes of Activity	Proofs of Activity
<p>i. Biodiversity Awareness Campaign</p> <p>May 23, 2022</p> <p><u>Organising Committee:</u></p> <p>Dharat Suhavi Environment Society</p> <p>Solid Waste Management Society</p> <p><u>Collaborations:</u></p> <p>National Biodiversity Authority, India</p> <p>Punjab Biodiversity Board</p>	<p>The College launched a Biodiversity Awareness Campaign under the Milk Bag Recycling Project to commemorate the International Day of Biodiversity.</p> <p>A Visit to Khaalis Organic Collective, Sector 8C, Chandigarh was organised.</p> <p>Students were sensitised about the benefits of products grown with organic methods to support biodiversity friendly companies.</p> <p>A dedicated team of Eco Scouts and student volunteers visited different schools across the region to make students aware of the proper disposal and recycling of empty milk packets.</p> <p>News report</p>	<p>Milk Bag Recycling Project</p> <p>Sri Guru Gobind Singh College has adopted the best practice of Environmental Sustainability and is one of the pioneers in adopting environmentally friendly measures. An initiative of Dharat Suhavi Environment Society, the Milk Bag Recycling Project is an earnest effort to save environment from the harm caused by inappropriate disposal of milk packets. A small contribution by everyone will go a long way in mitigating environmental hazards.</p>
<p>Heritage Train Trip</p> <p>May 21, 2022</p>	<p>The College organised a Heritage Train Trip from Kalka to Shimla. The faculty members were</p>	

<p>Solid Waste Management Committee</p> <p>MGNRCE</p> <p><u>Collaboration:</u> Indian Pollution Control Association (IPCA)</p>	<p>and Mr Rakesh Kumar, Senior Sanitation Inspector, MC Chandigarh graced the occasion.</p> <p>https://www.facebook.com/photo/?fbid=135928831845322&set=pcb.135928895178649&_ft_</p> <p>https://fb.watch/hhQJF3CzDO/</p>	
<p>iii. Rangoli competition on 'Save Forests'</p> <p>March 21,2021</p> <p><u>Organising Committee:</u> Guru Nanak Sacred Forest Committee</p> <p>Dharat Suhavi Environment Society</p>	<p>Rangoli Competition on the theme- Save Forests was held to motivate students to perform and outshine in their creative skills and work as a team. Recreational education method was used to create awareness regarding the need to maintain the ecological balance by saving forests</p> <p>Special feature of the event was the inauguration of an Outdoor Display and Air Quality Display LED Panel in the Guru Nanak Sacred Forest.</p>	 



		 <p>सर्वप्रथम पुरस्कारों के साथ ही श्री गुरु गोबिंद सिंग कॉलेज चण्डीगढ़ में आयोजित 'स्वच्छ भारत अभियान' कार्यक्रम का शुभारंभ हुआ।</p> <p>श्री गुरु गोबिंद सिंग कॉलेज चण्डीगढ़ में आयोजित 'स्वच्छ भारत अभियान' कार्यक्रम का शुभारंभ हुआ।</p>
<p>iv. 7 Days NSS Camp on Swachh Bharat Abhiyan and Jal Shakti Abhiyan</p> <p>Mar 04-10, 2022</p> <p><u>Organising Committee:</u></p> <p>NSS Unit</p>	<p>NSS volunteers enthusiastically participated in various awareness activities on environment, hygiene and cleanliness in the campus.</p> <p>The Camp motivated the students to adopt and inculcate environment friendly habits in their daily life.</p> <p>It sensitised the students about the importance and positive impact of Swachh Bharat Abhiyan and Jal Shakti Abhiyan.</p>	
<p>V E-Waste Collection Drive</p> <p>March 04-10, 2022</p> <p><u>Organising Committee:</u></p> <p>Dharat Suhavi Environment Society</p> <p>PG Deptt of Computer Science</p> <p>NSS Unit</p>	<p>The Drive created Awareness amongst the students and faculty about the safe disposal of e-waste and its management.</p> <p>Students were motivated to adopt proper methods of E-waste disposal.</p> <p>A large quantity of e-waste was collected by the students and faculty in the Bin specially installed for this purpose.</p>	 

<p>vi. Cleanliness Drive by Eco Scouts</p> <p>December 07, 2021</p> <p>Organising Committee: Dharat Suhavi Environment Society</p>	<p>The drive promoted awareness about the need to maintain cleanliness by using responsible methods of handling waste.</p> <p>The Eco Scouts cleaned the Campus with full zeal and encouraged other students to participate in the drive.</p>	 <p>The image shows a poster for a 'Cleanliness Drive by Eco Scouts' held at the sports ground on December 7, 2021. The poster lists the venue, date, and timing (11:00 AM - 12:00 p.m.) and requests all students to participate. Below the poster is a photograph of students participating in the drive, with some bending over to pick up waste. The names of the coordinator, Dr. Sugandha Kohli Kaang, and the principal, Dr. Navjot Kaur, are also visible.</p>
<p>vii. Nature Trail to City Forest Aviary</p> <p>November 24, 2021</p> <p>Organising Committee: Dharat Suhavi Environment Society</p> <p>BAAZ: Bird Watchers' Society</p>	<p>The trail was organised to raise environmental awareness amongst the participants.</p> <p>Students were acquainted with the different species of birds.</p> <p>Consciousness about protecting birds and creating a healthy urban habitat was inculcated.</p>	 <p>The image contains a poster for a 'Nature Trail to City Forest Aviary' organized by BAAZ: Bird Watchers' Society on November 24, 2021, at 2 p.m. The poster lists the organizing team and the principal, Dr. Navjot Kaur. Below the poster is a newspaper clipping with the headline 'पक्षीशाला देखने पहुंचे विद्यार्थी' (Students reached to see the aviary). The clipping reports on the visit to the City Forest Aviary, mentioning the presence of various bird species and the participation of students and faculty members.</p>
<p>viii. Green Diwali</p> <p>November 03, 2021</p> <p>Organising Committee: Guru Nanak Sacred Forest Committee</p>	<p>Students were sensitised about various ways to celebrate Diwali while minimising environmental harm.</p> <p>Students and faculty planted saplings to encourage the celebration of the festival of lights in an eco-friendly manner.</p>	 <p>The image shows a poster for 'Green Diwali' organized by the Guru Nanak Sacred Forest and Dharat Suhavi Environment Society on November 3, 2021. The poster lists the venue as Ramzola Garden and the timing as 12:00 p.m. It mentions the participation of students and faculty members in planting saplings. The names of the coordinator, Dr. Sugandha Kohli Kaang, and the principal, Dr. Navjot Kaur, are also visible.</p>

<p>Dharat Suhavi Environment Society</p>		 
<p>ix. Intra-college Rangoli Competition: Save Wildlife: Preserve to Cherish or leave it to perish (Wildlife Week)</p> <p>October 06, 2021</p> <p><u>Organising Committee:</u> Dharat Suhavi Environment Society</p>	<p>Students were motivated to find a link between creativity and biodiversity.</p> <p>They gain knowledge on the varied forms of wild flora and fauna, and awareness about the multitude of benefits that their conservation provides.</p> <p>Students were sensitised about the need to protect and preserve flora and fauna.</p>	 
<p>x. Inter-college Online Competitions (Akshay Urja Diwas)</p> <p>August 28 - September 06, 2021</p> <p><u>Organising Committee:</u> Dharat Suhavi Environment Society</p> <p><u>Sponsored by:</u> CREST</p>	<p>The theme of the competition was 'Renewable Energy for a Sustainable World: Conserve Energy to Preserve Future'.</p> <p>Various competitions and an expert lecture were organised to inform students about the benefits of green renewable energy, switching to renewable energy, and development related to the adoption of renewable energy in India.</p>	 

<p>xi. Inter-College caption and Slogan Writing Competition. (Ocean Day)</p> <p>June 08, 2021</p> <p><u>Organising Committee:</u> Dharat Suhavi Environment Society</p>	<p>An Inter-College Caption and Slogan Writing Competition was organised on the theme – The Ocean: Life and Livelihood.</p> <p>Students were sensitised about the need to conserve Oceans and Marine life.</p>	 
<p>xii. Inter-College Online Quiz o Mania (World Environment Day)</p> <p>June 05, 2021</p> <p><u>Organising Committee:</u> Dharat Suhavi Environment Society</p>	<p>The theme of the quiz was Ecosystem Restoration.</p> <p>Emphasis was laid on the need to conserve the environment and Sustainable Development.</p>	 
<p>Workshops/Seminars/Expert Lectures</p>		

<p>i. Capacity Building Workshop: Turning Trash to Treasure-Reuse Plastic Waste</p> <p>May 30,2022</p> <p>Organising Committee: Innovation Cell</p> <p>Solid Waste Management Committee</p> <p>Collaboration: Indian Pollution Control Association (IPCA)</p>	<p>Students were sensitised about the harmful effects of plastic on the environment and about its reuse to reduce the harm caused by it.</p> <p>Emphasis was laid on the need to adopt environmentally preferred solutions to everyday unwanted household objects.</p> <p>Cloth bags were distributed among students to generate awareness about the need to switch over from plastic bags to cloth bags.</p> <p>News Report</p>	 
<p>ii. Photography Workshop on 'Avifauna to Promote Environment Sustainability'</p> <p>May 06, 2022</p> <p>Organising Committee: Dharat Suhavi Environment Society</p> <p>Guru Nanak Sacred Forest Committee</p> <p>Baaz: Bird Watchers' Society</p> <p>MGNCRE</p>	<p>Students were sensitised about the importance of avifauna in maintaining climate stability, oxygenating air, and transforming pollutants to nutrients. They were familiarised with various species of birds.</p> <p>The event promoted multi-disciplinary learning amongst the students. Participants were guided on how to capture the perfect moments of nature's beauty. Technical skills on protection of camera from moisture and dust were also shared.</p> <p>News Report</p>	 

<p>v. Rally and Expert Lecture on Waste Water Management</p> <p>March 22, 2022</p> <p>Organising Committee: Dharat Suhavi Environment Society</p> <p>Solid Waste Management Committee</p>	<p>The College celebrated World Water Day by organising a Rally from the College to Sukhna Lake where the Eco Scouts raised awareness about the dire need to save water.</p> <p>An Expert Lecture on ‘Waste Water Management’ was delivered by Mr Parveen Yadav, Forest Range Officer.</p>	 <p>Sri Guru Gobind Singh College Sector-26 Chandigarh</p> <p>To Commemorate National Science Day 2022 Dharat Suhavi Environment Society and Solid Waste Management Committee in collaboration with Department Of Forests and Wildlife, UT Administration, Chandigarh organises Rally and Expert Lecture on WASTE WATER MANAGEMENT on March 22, 2022 Venue: Water Management and Filtration Point, Sukhna Lake Resource person Sh Parveen Yadav, Range Forest Officer</p> <p>Coordinators Dr Sugandha Kohli Kaang Dr Harsimran Kaur</p> <p>Dr Navjot Kaur Principal</p>
<p>vi. One Day Workshop on Waste as Wealth</p> <p>March 17, 2022</p> <p>Organising Committee: Dharat Suhavi Environment Society</p> <p>Solid Waste Management Committee</p> <p>Sponsored by: Punjab State Council for Science and Technology, Chd.</p>	<p>The event was Students were informed about effective techniques to minimise waste generation.</p> <p>A Bio-reactor was installed on Campus to effectively manage horticultural waste.</p>	 <p>SRI GURU GOBIND SINGH COLLEGE SECTOR-26, CHANDIGARH</p> <p>TO COMMEMORATE NATIONAL SCIENCE DAY LECTURE SERIES</p> <p>Dharat Suhavi Environment Society & Solid Waste Management Committee</p> <p>In Collaboration With PUNJAB STATE CLIMATE CHANGE KNOWLEDGE CENTRE & PUNJAB CIVICS CLUB Organize One day Workshop on WASTE AS WEALTH By Mr. Parveen Arora (Research Head, Natural Biodiversity and Social Substances) & INSTALLATION OF BIOREACTOR On the occasion of Global Recycling Day</p> <p>March 17, 2022 Timing: 11:00 AM Venue: Botanical Garden</p> <p>Coordinators Dr Sugandha Kohli Kaang Dr Harsimran Kaur Aulakh</p> <p>Dr Navjot Kaur Principal</p> 
<p>vii.. Expert lecture on Solid Waste Management</p> <p>March 04,2022</p> <p>Organising Committee: Dharat Suhavi Environment Society,</p> <p>NSS Unit</p>	<p>Students were sensitised about the problems caused by improper disposal of garbage.</p> <p>Techniques to manage solid waste effectively, to achieve the Sustainable Development Goals were elucidated upon.</p>	 <p>Sri Guru Gobind Singh College Sector-26 Chandigarh</p> <p>Dharat Suhavi Environment Society in collaboration with NSS Unit organises a Lecture on Solid Waste Management Make our Planet a Cleaner place to Live</p> <p>By Dr Harsimran Kaur Aulakh Assistant Professor, Deptt of Botany, SGGSC</p> <p>Venue : Sandar Hari Singh Nalwa Hall March 4, 2022 Timing : 3.00 PM - 4: 00 PM</p> <p>Dr Sugandha Kohli Kaang Coordinator, Dharat Suhavi Environment Society</p> <p>Dr Navjot Kaur Principal</p>

		
<p>viii. Webinar on Water and Wetlands: Challenges and Opportunities</p> <p>February 02,2022</p> <p><u>Organising Committee:</u> Dharat Suhavi Environment Society</p>	<p>Students gained knowledge about the immense socio-economic and ecological importance of wetlands, and challenges and opportunities specific to Punjab wetlands.</p>	 <p>खालसा कॉलेज में ऑनलाइन व्याख्यान</p> <p>चंडीगढ़, 2 फरवरी (आशीष) : सैक्टर-26 स्थित श्री गुरु गोबिंद सिंह कॉलेज ने विश्व आर्द्रभूमि दिवस के उपलक्ष्य में पंजाब में पानी और आर्द्रभूमि-अवसर और चुनौतियों पर ऑनलाइन व्याख्यान का आयोजन किया। आयोजन के लिए संसाधन व्यक्ति संभाजी एस. पाल्वे, सोशल इनोवेशन मैनेजर हेड, सी.एस.आर. और सरस्टेनेबिलिटी इंडिया, डैमोन इंडिया रहे। उन्होंने प्रस्तुति दी और प्रतिभागियों को आर्द्रभूमि के विशाल सामाजिक, आर्थिक और पारिस्थितिक महत्व के बारे में विस्तार से बताया। उन्होंने पंजाब में आर्द्रभूमि की गंभीर स्थिति के बारे में विस्तार से बताया और आर्द्रभूमि की पेशकश के विविध अवसरों पर ध्यान केंद्रित किया। डॉ. नवजीत कौर, प्रिंसिपल ने इस आयोजन के आयोजन में धरत सुहावी पर्यावरण सोसायटी के प्रयासों की सराहना की। प्रतिभागियों को आर्द्रभूमि के संरक्षण के महत्व को समझने के लिए प्रोत्साहित किया।</p> <p>Punjab Kesari Page 2, Dated:03.02.2022</p>
<p>ix. Online workshop on Milk Bag Recycling Project</p> <p>October 01, 2021</p> <p><u>Organising Committee:</u> Dharat Suhavi Environment Society</p>	<p>Students were sensitised about the harmful effects of plastic milk packets on environment and living organisms and recycling of milk bags. MOU was signed between SGGS college and the Milk Bag Recycling Team. Milk bag recycling bin was installed on campus. Students and faculty actively contribute to this initiative. MOU has also been signed with a recycling vendor who collects milk packets every month.</p>	 

		
<p>x. Workshop on Combating Carbon Footprints</p> <p>September 09, 2021</p> <p><u>Organising Committee:</u> Dharat Suhavi Environment Society</p>	<p>Participants were sensitised about renewable energy and the need to switch to a clean source of energy. Eco-scouts, student wing of Dharat Suhavi Environment Society, took a pledge to work towards sustainability and to adopt environmentally friendly practices. The event concluded with the plantation of Dhak sapling, the state flower of Chandigarh. The need for promotion of solar energy in residential, industrial and commercial sectors was stressed upon by the resource person.</p>	

H. Green, Environment, Energy and Water Audits

The College conducted Environment & Green Audit, Water Audit and Energy Audit realising the social responsibility of the institution by evaluating its contribution towards a sustainable future. These audits focused on the green campus, waste management, water management, air pollution, energy management and carbon footprint etc being implemented at the College. The green initiatives carried out by the College towards environment and sustainability has been highly appreciated in the audit certificate. These audit reports will further facilitate more effective management and governing of the eco-friendly initiatives in the College and provide students and staff a better understanding of Green impact on campus.

Certificate



CERTIFICATE No. EHSAP33A

CERTIFICATE

M/s Sri Guru Gobind Singh College

Sector-26 Chandigarh 160019 (India)

Has been assessed by us for the comprehensive study of environmental impact on institutional working framework to fulfill the requirement of

Environment & Green Audit

The green initiatives carried out by the college have been verified on the report submitted and was found to be satisfactory.

The efforts taken by management and faculty towards environment and sustainability are highly appreciated and noteworthy

Date of Audit: 27 Dec, 2021



EHS Alliance Services
Plot No A-72, Surya Vihar, Near Sector-4, Gurugram (Haryana)-122001
Phone-0124-2250624, Email: ehsalliance@gmail.com, www.eshall.in

Certificate of Environment & Green Audit



CERTIFICATE

M/s Sri Guru Gobind Singh College

Sector-26 Chandigarh 160019 (India)

Has been assessed by us for the comprehensive study of Energy Audit on institutional working framework to fulfill the requirement of

Energy Audit

The energy saving initiatives carried out by the college has been verified on the report submitted and was found to be satisfactory.

The efforts taken by management and faculty towards all type of energy used in college and sustainability are highly appreciated and noteworthy

Date of Audit: 27 Dec, 2021


BEE No- 201953
Manoj Kumar
For EHS Alliance



Certificate of Energy Audit



Water Audit Report

A. Awards And Accolades

National Green Corps Best Environment Society Award: The College has been awarded the National Green Corps Best Environment Society Award by the Department of Environment, Chandigarh Administration for the year 2021-22 for its earnest efforts towards environmental consciousness.



Best Herbal Garden, 2022: The College received the Best Herbal Garden Award by the Department of Environment, Chandigarh Administration and Yuvsatta NGO.



First Position in ‘Selfie with Plant’: The College received First Position in ‘Selfie with Plant’ a Plantation Drive organised by Mahatma Gandhi National Council of Rural Education, Ministry of Education, Government of India on World Environment Day.

B. Carbon Footprint Reduction and Natural Water Recharging with Green Cover

Such a majestic green cover in the College campus is a step forward towards reducing the carbon footprint in the vicinity. This footprint is produced via direct emissions of greenhouse gases associated with combustion of fossil fuels for heating and transportation, indirect emissions associated with electricity purchases and finally other emissions related to solid waste, refrigerants, land use management, etc. A typical tree can absorb around 21 kilograms of carbon dioxide (CO₂) per year; however, this figure is only achieved when the tree is fully grown - seedlings will absorb significantly less than this. Over a lifetime of 100 years, one tree could absorb around a tonne of CO₂.

The expanded green cover of the College includes a fast growing mini urban forest with Miyawaki technique. A variety of plants, shrubs, herbs and grass act as natural water recharging systems. The College persistently enriches its floral diversity with various plantation drives with the active participation of the students and staff.

