

Green Audit Report



# GREEN AUDIT REPORT

**Swami Vivekanand Govt. P. G. College,  
Lohaghat, (Champawat) Uttarakhand, India**

**INTERNAL QUALITY ASSURANCE CELL (IQAC)**



*S Gupta*

Principal

**S.V. Government P.G. College  
Lonaghat ( Champawat)**

**CONTENTS**

|  | Page No. |
|--|----------|
| Acknowledgement  | 3        |
| Certificate  | 4        |
| Location of the College                                  | 5        |
| College Map  | 6        |
| About College  | 7        |
| History of College                                       | 7        |
| Vision   | 7        |
| Mission  | 7        |
| Green Audit: Introduction                                | 8        |
| Need for Green Auditing                                  | 8        |
| Objectives of Green Auditing                             | 9        |
| Benefits of the Green Audit                              | 9        |
| Green steps taken by the College                         | 9-11     |
| Eco-Club/NCC/NSS – Managers of the beauty of the college | 12-13    |
| Celebrations of local festival 'Harela'                  | 14       |
| Certificate  | 15       |
| Achievement- District Championship Award                 | 16       |
| Award Ceremony   | 17       |
| News Paper Cutting                                       | 17       |
| Findings- Carbon footprints Audit                        | 18       |
| Biodiversity of the College Campus                       | 19       |
| Flora of the college campus                              | 20-25    |
| Pie Chart of habits of Plant Species                     | 25       |
| Picture of Flora and Fauna of the College                | 26       |
| Water purity of the campus                               | 27       |
| Water report of the college                              | 28       |
| Weather Report of the Campus                             | 28       |
| Rainfall Pattern   | 29-30    |
| Existing energy management on the College Campus         | 31       |
| Noise pollution management on the College campus         | 32       |
| Waste management Practices adopted by the College        | 33       |
| Awareness programme for pollution control                | 33       |
| Best Practices   | 33-40    |
| Recommendations  | 41       |
| Conclusions  | 41       |
| Photo of green Audit Committee                           | 42       |

## Acknowledgment

*Green Audit team thanks to Dr. Sangeeta Gupta, Principal of Swami Vivekanand Govt. P. G. College, Lohaghat, (Champawat) Uttarakhand for entrusting its members to prepare Green Audit Report of the campus. We wholeheartedly thank the teaching & non-teaching staff and students for their timely support rendered to the green audit team at different stages of the process that helped us to complete the audit in time. We also thank the heads of various departments and teachers in-charge of each department for sharing documents and information. We are thankful to the teachers, students & coordinators of different Committees like NCC, NSS, Rovers Rangers & Eco-Club for the same. The support from the office staff of GIS Map, KVK, & Soil Testing Lab Lohaghat during visit to their campuses for verification of documents is also highly appreciated.*

# Certificate

*This is to certify that the Green Audit Report of Swami Vivekananda Govt. P.G. College, Lohaghat, (Champawat) has been prepared by the Green Audit Committee and is based on the original data & reference data from different agencies. A review of findings of internal green & environmental audits conducted by the Green Audit Committee is based on desktop review of documents/records, on-site visit of the college campus, and telephonic interviews of faculty, non-teaching staff & students.*

*The audit was conducted in 2020-2021.*

*The Green Audit Report also presents green initiatives followed and taken up by the college and provides suggestions and recommendations to improve environmental sustainability. Thus, suitable actions have been taken for the suggestions given to promote & develop a healthy environment with sustainability.*

*P. Lakhera*

**Dr. Prakash Lakhera**, Assistant Prof. Political Science  
Coordinator  
Green Audit Committee

*Pant*

**Dr. Pritee Pant**, Assistant Prof. Botany  
Member  
Green Audit Committee

*S Gupta*

**Prof. (Dr.) Sangeeta Gupta**  
Principal  
Swami Vivekanand Govt. P.G. College  
Lohaghat (Champawat) India  
Principal  
3.V. Government P.G. College  
Lonaghat (Champawat)

### **1. Location of the college:**

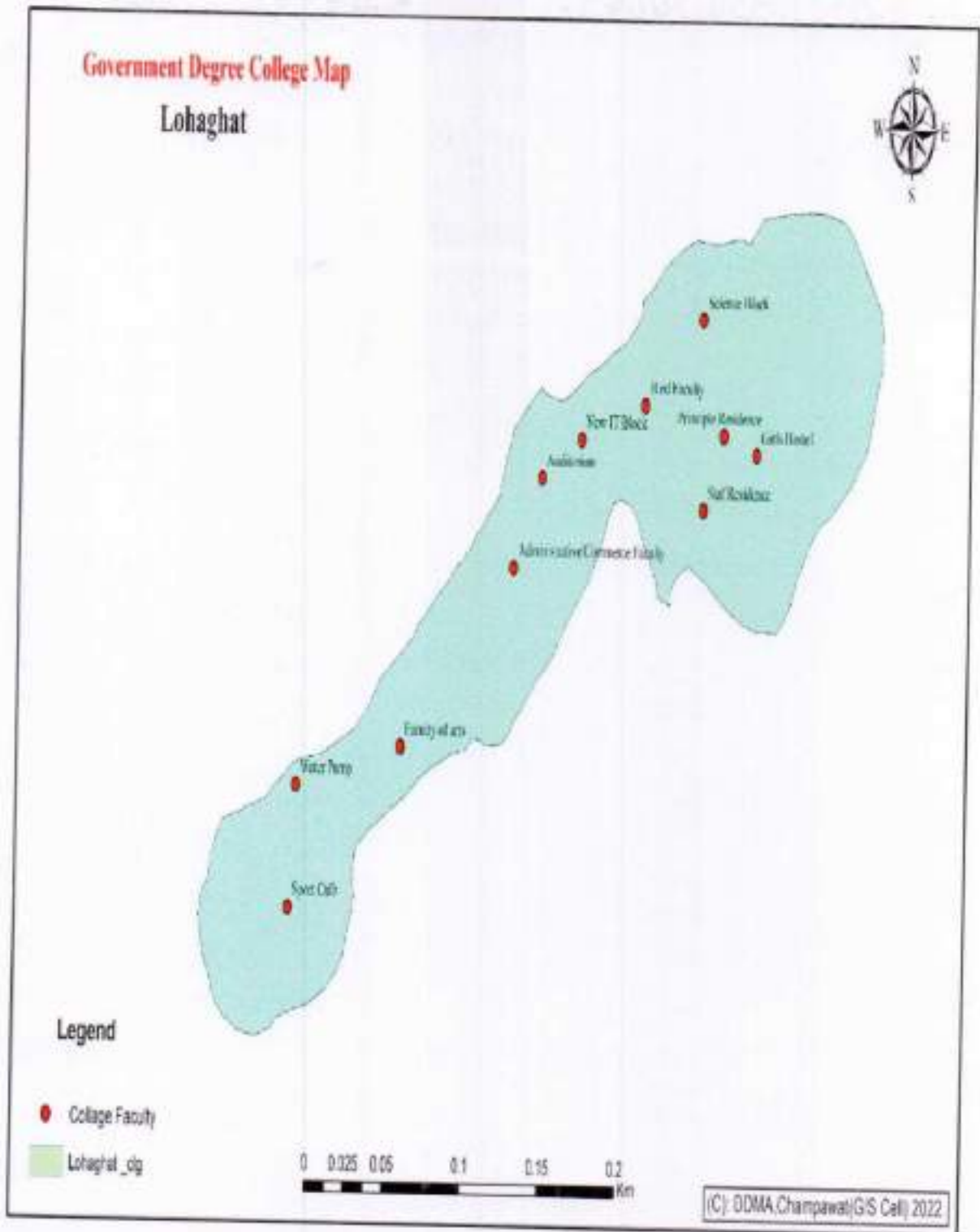
Lohaghat is located at  $29.42^{\circ}$  N  $80.10^{\circ}$  E at an elevation of 1,788 meters (5,866 ft) above the mean sea level, and is spread over an area of 4.5 square kilometers. It is located on the banks of Lohawati river in Champawat District. In the lap of the Great Himalayan range, a small hill station Lohaghat is situated in Champawat district of Uttarakhand. The town is unique in itself full of widespread greenery & beautiful landscapes. It is widely known for its beautifully sculptured temples; the town falls in the seismic belt of zone 5. This ancient town of Lohaghat has immense historical and mythological importance, which attracts many tourists.

The college is spread over 36,400 sqm which includes about 18,200 sqm of green area cover. College is easily accessible by road which is 2 km away from the town of Lohaghat. Tanakpur railways station is 95 km from the College & Pant Nagar Airport is 130 km away from the College. As the campus is located almost in forest area, presence of a green belt including Deodar, Oak, & Cupressus trees, the college is free from noise and air pollution.



**Aerial View of the College Campus**

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**Map showing red dots to College Building & Sky-blue area shows the College Land**

**2. About the College:** Swami Vivekanand Govt. P. G. College Lohaghat was established in the year 1979 by the then Uttar Pradesh Government. Thus, the foundation stone of a strong academic desire was established. Starting under harsh circumstances and within limited resources, the college is now one of the premier institutions of higher education in the region. Since then, it is engaged in rendering its services to provide higher education and making an endeavor for human resource development in an economically and educationally weaker region of Uttarakhand. Here, young minds build their character and blossom into dynamic professionals. The academic calendars have ample space for theoretical learning and practical training of the students along with co-curricular and extra-curricular activities. Organising of guest lectures, workshops, and seminars is regular feature of the institution.

**2.1 History of the College:** The very first day, when students took their classes in the institution, was October 2, 1979. The College was then situated in the Meena Bazaar area of Lohaghat and offered Courses only for Bachelor of Arts & Bachelor of Commerce Programme. Due to the continued demand of the students, a newly constructed was provided to the college in Rainagar area with much better facilities.

### **2.2 Vision:**

“To establish the institution as a Vibrant Centre of Quality Learning to contribute to Sustainable Development of the nation”

### **2.3 Mission:**

To ensure the vision, the institution has well-visualized missions: -

- Dissemination of quality education integrating skill development
- Institutionalization and internalization of best practices.
- Creation of a viable atmosphere for research-oriented activities through development and improvement in research infrastructure.
- Inculcation of values through education.
- Entrepreneurial capacity building among students contributes to the economic progress of the local economy of the state thus the national economy

## Green Audit Report

- Addressing local needs and challenges by promoting innovation in teaching, learning, research, and consultancy services
- Bringing awareness among students towards human rights, democratic values, and welfare of underprivileged sections of society
- Organization of environmental activities to raise issues of public health, hygiene, gender, and equality.
- Facilitation of the latest sports infrastructure and training to enhance the strong physical attributes of the athletes of the region
- Promotion of culture where students, teachers, alumni, and administrators can work together in harmony.

**3. Green Audit: Introduction** The green audit aims to analyse environmental practices within and outside the college, university and other institution campuses, which will have an impact on the eco-friendly atmosphere. The green audit can be defined as the systematic identification, quantification, recording, reporting, and analysis of components of the college environment. It was initiated with the motive of inspecting the effort within the institutions whose exercises can cause a threat to the health of inhabitants and the environment. Green Audit Report to provides a direction as to how to improve the environment which includes several.

**4. Need for Green Auditing:** Green auditing is the process of identifying and determining whether an institution's practices are eco-friendly and sustainable. Traditionally, we are good and efficient users of natural resources. But over the period excess use of resources like energy, and water, are become habitual for everyone especially, in common areas. Now, it is necessary to check whether our processes are consuming more than the 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 them into green and clean ones. The green audit provides an approach for it. It also increases overall consciousness among the people working in an institution towards an environment.



### 5. Objectives of the Green Audit:

- To prepare a checklist of flora and fauna diversity around the college campus.
- To observe the energy consumption of the college.
- To assess the purity of water supply sources.
- To observe the weather report, rainfall & Soil PH of the sounding environment.
- To observe the different awareness programs conducted by the college.
- To observe the carbon footprint of the college campus.
- To observe the waste management of the college campus.
- Continuous assessment for betterment in performance in green.

### 6. Benefits of Green Audit:

There are many advantages of a green audit to an Educational Institute:

- It would help to protect the environment in and around the campus.
- Recognize the cost-saving methods through waste minimization and energy conservation.
- Empower the organization to frame a better environmental performance.
- It portrays a good image of the institution through its clean and green campus.
- Finally, it will help to build a positive impression through green initiatives during the upcoming NAAC visit

### 7. Green Steps were taken by the College:

The College campus was audited concerning Green Audit Checklist developed by the green audit committee. Based on the data available for review, it is understood that from the last 10 years college is actively taking initiatives by organising environment-related activities.

The college has taken green initiatives by installing a rainwater harvesting system, vermicomposting, establishing Eco-Club, promoting eco-friendly activities, etc.

- Buildings are specifically designed with wide windows and wide

## Green Audit Report

passages to utilize sunlight, and for ventilation.

- The college has dense biodiversity with 124 plant species including herbs, shrubs, trees, and climbers.
- Understanding the importance of efficient energy use, the college has initiated the process of replacing all incandescent lights with LEDs.
- College established an 'Eco Club' in which students and staff arrange different environmental activities such as guest lectures, conferences, cleanliness drives, etc.
- The college has developed a Botanical Garden where students can understand the knowledge and significance of plants.
- To initiate online practices by reducing the paperwork to save the environment.



**White Gladiolus grown in College Campus**

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Lohaghat, Uttarakhand, India

Degree College Rd, Rai Nagar, Lohaghat, Uttarakhand 262524, India

Lat N 29° 23' 43.4004"

Long E 80° 5' 37.518"

11/07/21 08:23 AM



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*Eco-club/NCC/NSS maintains the beauty of the college*



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Lohaghat, Uttarakhand, India  
 83WV47JR, Rai Nagar, Lohaghat, Uttarakhand 265624, India  
 Lat 29.395542°  
 Long 80.093935°  
 25/11/21 01:11 PM



*Oenothera biennis growing in Campus / Awareness Programme with students*



Lohaghat, Uttarakhand, India  
 83WV-7JR, Rai Nagar, Lohaghat, Uttarakhand 265624, India  
 Lat 29.395482°  
 Long 80.093942°  
 07/05/22 10:31 AM

*Awareness Programme with students / Awareness Programme with students*



*'Harela festival' being celebrated by all college Staff with Dr. Sangeeta Gupta, Principal*



*'Harela' Festival celebrated by NCC, NSS, ROVER RANGER & Eco-Club*

**7.1 Achievements of the College in maintaining sustainability:** The College has received Green Championship Award from the Mahatma Gandhi National Council of Rural Education, Department of Higher Education, Ministry of Education. Provided by MGNCRE Sustainability Index Proforma is filled by the Coordinator of the Eco-club on behalf of the principal. In this Index Proforma, much information is shared with MGNCRE. The college has shared the

## Green Audit Report

usage of water, water availability, Rainwater Harvesting on campus, requirement of energy, electricity, area under green cover, Plant Protection Management, and number of plants/trees plantations, area under green cover, Waste Management collection, Availability of functional drainage system, proposed area for development, total proposed area for greenery.



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## Certificate



Where there is Rural Education  
There is Universal Prosperity

*This is to certify that Swami Vivekanand Govt. P. G. College Lohaghat, Dist-Champawat, Uttarakhand is now a Recognized Social Entrepreneurship, Swachhta & Rural Engagement Cell (SES REC) Institution. The Institution has successfully framed the SES REC Action Plan and constituted ten working groups for improving facilities in the Campus and the Community/Adopted Villages in the areas of Sanitation & Hygiene, Waste Management, Water Management, Energy Conservation and Greenery post COVID-19, along with the observation of three environment, entrepreneurship and community engagement related days to inculcate in faculty, students and community, the practices of Mentoring, Social Responsibility, Swachhta and Care for Environment and Resources.*

Dr Shatrughan Bhardwaj  
Regional Coordinator

Dr. W G Prasanna Kumar  
Chairman

Mahatma Gandhi National Council of Rural Education  
Department of Higher Education, Ministry of Education  
Government of India

Certificate No. MGNRES/ECAR/227

Date of Issue: 19/10/2021



***District Green Champion Certificate***



***Dr. Prakash Lakhera, Coordinator of Eco-Club, receiving the Green Championship Award for college in Patanjali University Haridwar on behalf of the Principal***



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*Handing over the Green Championship Award to Dr. Sangeeta Gupta, Principal*



## 8. Findings

### 8.1 Carbon Footprint Audit

The most common greenhouse gases are carbon dioxide, water vapour, methane, nitrous oxide, and ozone. Of all the greenhouse gases, carbon dioxide is the most prominent greenhouse gas, comprising 402 ppm of the Earth's atmosphere. Each human being is contributing toward adding greenhouse gases to the atmosphere depending upon his day-to-day activities and usage of instruments and machinery for a different purpose. The release of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon footprint. An understanding of the same of any institute where a large number of anthropogenic activities are happening is important to assess the contribution of emission of gases that are responsible for Green House Effect. Auditing for the carbon footprint of Swami Vivekanand Gov P.G Lohaghat College was done using a detailed questionnaire so that the impact of the community on the global environment can be assessed.

Total number of Students – 3242

Total number of Teachers – 45

Number of non-teaching staff – 27

Number of persons using cars - 9

Number of persons using two-wheelers – 28

LPG usage – 0

College is situated 2km far from the town of Lohaghat in the lap of Deodar Forest and different species of plants which are a great storehouse of carbon. Majority of the college community comes college by walking. Most of the staff use carpooling methods to reduce

the consumption of fuel. So, the environment is safe sustainable, and almost pollution free. There is very less emit of carbon dioxide.

### **8.2 Biodiversity of the college campus:**

The campus is located in an area of approximately 124 species of flora. Various tree plantation programs are being organized during July and August at the college campus and surrounding villages through NSS, NCC, and Eco club units. These awareness help encouraging an eco-friendly environment that provides pure oxygen within the institute and surrounding localities. The plantation program includes various types of indigenous species which have ornamental and medicinal values. Deodar is the dominant species of the surrounding area. Besides ornamental flowers, there are many species of mosses, pteridophytes, and gymnosperm plants. Different variety of species is listed in the table: Students of department of Botany are actively involved in gardening, maintenance, etc. of gardens within the campus. Further students are learning gardening techniques while working in the garden with the help of the teachers concerned. Garden makes ample space and scope for conducting practicals for students of Botany and Environmental studies. These plantation provides good opportunity to Students from the department of Zoology to learn about insects and their role in pollination by observing the same in the garden.

**Table 1: List of Plant Species in College Campus:**

| S. No. | Scientific name of plant            | Local name               | Family        | Habit/ T/S/H/ C | No.   |
|--------|-------------------------------------|--------------------------|---------------|-----------------|-------|
| 1      | <i>Abies pindro</i>                 | Himalayan Fir            | Pinaceae      | T               | 4     |
| 2      | <i>Acacia baileyana</i>             | Cootamundra wattle       | Fabaceae      | T               | 21    |
| 13     | <i>Achanthospermum hispidum</i>     | Bristly star bur         | Asteraceae    | H               | 10    |
| 4      | <i>Aconium undulatum</i>            | Suucer plant             | Crassulaceae  | S               | 6     |
| 5      | <i>Aesculus hippocastanum</i>       | Horsechestnut            | Sapindaceae   | T               | 1     |
| 6      | <i>Ageratina adenophora</i>         | Sticky snakerroot        | Asteraceae    | H               | 175   |
| 7      | <i>Aleuritopteris albomarginata</i> | Fern                     | Pteridaceae   | H               | 30-40 |
| 8      | <i>Allium stracheyii</i>            | Jambu                    | Alliaceae     | H               | 4     |
| 9      | <i>Aloe barbadense</i>              | Aloe vera                | Asphodelaceae | S               | 30    |
| 10     | <i>Anredera cordifolia</i>          | Madeira vine             | Basellaceae   | C               | 4     |
| 11     | <i>Aptenia cordifolia</i>           | Baby sun rose            | Aizoaceae     | H               | 1     |
| 12     | <i>Asclepias curassavica</i>        | Tropical milkweed        | Apocynaceae   | S               | 9     |
| 13     | <i>Asplenium dalhausieae</i>        | Fern                     | Aspleniaceae  | H               | 10    |
| 14     | <i>Asparagus racemosus</i>          | Satawar                  | Asperagaceae  | S               | 7     |
| 15     | <i>Bergenia ciliate</i>             | Pattharchatta            | Saxifragaceae | T               | 2     |
| 16     | <i>Barleria prionitis</i>           | Bajradanti               | Acanthaceae   | S               | 5     |
| 17     | <i>Begonia cucullate</i>            | Wax begonia              | Begoniaceae   | H               | 4     |
| 18     | <i>Begonia pearcei</i>              | Bulbos begonia           | bigoniaceae   | h               | 1     |
| 19     | <i>Berberis asiatica</i>            | Kilmora                  | berberidaceae | S               | 3     |
| 20     | <i>Bougainvillea glabra</i>         | Paperflower              | Nactaginaceae | T               | 4     |
| 21     | <i>Kalanchoe pinnata</i>            | Life plant, miracle leaf | crassulaceae  | H               | 2     |

## Green Audit Report

|    |                                      |                          |                 |         |             |
|----|--------------------------------------|--------------------------|-----------------|---------|-------------|
| 22 | <i>Canna discolor</i>                | Achira                   | Cannaceae       | H       | 5           |
| 23 | <i>Cannabis sativa</i>               | Bhang plant              | Cannabaceae     | S       | 7           |
| 24 | <i>Cedrus deodara</i>                | Deodaar                  | Pinaceae        | T       | 42          |
| 25 | <i>Chlorophytum barivilianum</i>     | Safed musli              | Asparagaceae    | H       | 10          |
| 26 | <i>Chlorophytum cosomus</i>          | Spider plant             | Asparagaceae    | H       | 4           |
| 27 | <i>Chrysanthemum merifolium</i>      | Florist's daisy          | Asteraceae      | H       | 5           |
| 28 | <i>Cichorium intybus</i>             | Kasni                    | Asteraceae      | T       | 15          |
| 29 | <i>Cinnamum tamala</i>               | Tej patta                | Lauraceae       | T       | 12          |
| 30 | <i>Citrus sinensis</i>               | Sweet orange             | Rutaceae        | T       | 5           |
| 31 | <i>Codiaeum variegatum</i>           | Gold dust croton         | Euphorbiaceae   | S       | 4           |
| 32 | <i>Coreopsis lanceolata</i>          | Lance leaved coreopsis   | Asteraceae      | H       | 10          |
| 33 | <i>Crassula ovata</i>                | Luck plant               | Crassulaceae    | S       | 4           |
| 34 | <i>Cuphea hyssopifolia</i>           | False heather            | Lythraceae      | S       | 1           |
| 35 | <i>Cupressus tarulosa</i>            | Surai                    | Cupressaceae    | T       | 29          |
| 36 | <i>Cynodon dactylon</i>              | DuboGrass, durva         | Poaceae         | H       | Uncountable |
| 37 | <i>Cynoglossum lanuslatum</i>        | Lance leaf forget me not | Boraginaceae    | H       | 90          |
| 38 | <i>Davallia beddomei C. hope</i>     | Fern                     | Davalliaceae    | H       | 50-60       |
| 39 | <i>Dioscorea villosa</i>             | Wild yam                 | Dioscoreaceae   | C       | 1           |
| 40 | <i>Dioscorea bulbifera</i>           | Bitter gum               | Dioscoreaceae   | C       | 5           |
| 41 | <i>Dracaena trifasciata</i>          | Snake plant              | Asparagaceae    | S       | 5           |
| 42 | <i>Dryopteris juxtaposita christ</i> | Jay                      | Dryopteridaceae | S       | 20-30       |
| 43 | <i>Dyopsis luterens</i>              | Butterfly palm           | Arecaceae       | S       | 4           |
| 44 | <i>Echeveria elegans</i>             | Mexican Gem              | Crassulaceae    | S       | 8           |
| 45 | <i>Epipremnum aureum</i>             | Money plant              | Aracaceae       | climber | 2           |

## Green Audit Report

|    |                                    |                        |               |   |       |
|----|------------------------------------|------------------------|---------------|---|-------|
| 46 | <i>Erigeron asteroides</i>         | Bangua                 | Asteraceae    | H | 100   |
| 47 | <i>Erigeron bonariensis</i>        | Flex leaf fleabane     | Asteraceae    | H | 35    |
| 48 | <i>Erigeron canadensis</i>         | Horse weed             | Asteraceae    | H | 20    |
| 49 | <i>Ficus palmata</i>               | Wild fig               | Moraceae      | T | 11    |
| 50 | <i>Fragaria indica</i>             | Bhiun kaphal           | Rosaceae      | H | 45    |
| 51 | <i>Fragaria virginiana</i>         | Virginia<br>strawberry | Rosaceae      | H | 10    |
| 52 | <i>Fuchsia magellanica</i>         | Hardy fuchsia          | Onagraceae    | S | 2     |
| 53 | <i>Galinsoga parviflora</i>        | Gauasca                | Asteraceae    | H | 60    |
| 54 | <i>Galinsoga<br/>quadriradiata</i> | Shaggy soldier         | Asteraceae    | H | 70-80 |
| 55 | <i>Geranium<br/>wallichianum</i>   | Wallich geranium       | Geraniaceae   | H | 20    |
| 56 | <i>Thalictrum foliolosum</i>       | Leafy meadow rue       | Ranunculaceae | H | 30    |
| 57 | <i>Gladiali traderhorn</i>         | Sword lily             | Iridaceae     | H | 15    |
| 58 | <i>Gomphrena globose</i>           | Globe amaranth         | Amaranthaceae | H | 10    |
| 59 | <i>Hedycheum spicatum</i>          | Vanhaldi               | Zingiberales  | H | 25    |
| 60 | <i>Hedychium spicatum</i>          | Banhaldi               | Gingiberaceae | H | 45    |
| 61 | <i>Helianthus annuus</i>           | Common<br>sunflower    | Asteraceae    | H | 30    |
| 62 | <i>Helianthus tuberosus</i>        | Wild sunflower         | Astarceae     | H | 10    |
| 63 | <i>Hibiscus syriacus</i>           | Shrub althea           | Malvaceae     | S | 3     |
| 64 | <i>Hibiscus syriacus</i>           | Rose Mallow            | Malvaceae     | S | 4     |
| 65 | <i>Impatiens glandulifera</i>      | Himalayan balsam       | Balsaminaceae | H | 4     |
| 66 | <i>Juniperous</i>                  | Common<br>Juniperus    | Cupressaceae  | T | 4     |
| 67 | <i>Lantana camara</i>              | Common Lantana         | Verbenaceae   | S | 5     |
| 68 | <i>Lapdidum densiflorum</i>        | Pepper grass           | Brassicaceae  | H | 70    |
| 69 | <i>Menthe piperita</i>             | Mint                   | Lamiaceae     | H | 10    |
| 70 | <i>Mespilus germanica</i>          | Medlar                 | Rosaceae      | S | 2     |
| 71 | <i>Nerium Oleander</i>             | Oleander or<br>Nerium  | Apocynaceae   | S | 20    |

## Green Audit Report

|    |                                 |                       |                 |   |     |
|----|---------------------------------|-----------------------|-----------------|---|-----|
| 72 | <i>Opismenus hirtellus</i>      | Basket grass          | Poaceae         | H | 90  |
| 73 | <i>Origanum vulgare</i>         | Ban tulshi            | Lamiaceae       | H | 45  |
| 74 | <i>Osmanthus fragrance</i>      | Sweet olive           | Oleaceae        | T | 1   |
| 75 | <i>Oxalis Corniculata</i>       | Indian Sorrel         | Oxalidaceae     | H | 90  |
| 76 | <i>Oxalis latifolia</i>         | Garden pink sorrel    | Oxalidales      | H | 100 |
| 77 | <i>Parthenium hysteropharus</i> | Santa Marica          | Asteraceae      | H | 50  |
| 78 | <i>Paspalum dilatatum</i>       | Dallisgrass           | Poaceae         | H | 80  |
| 79 | <i>Phytalacca icosandra</i>     | Button pokeweed       | Phytalaccaceae  | H | 20  |
| 80 | <i>Pinus roxburghii</i>         | Chir pine             | Pinaceae        | T | 5   |
| 81 | <i>Platycladus orientalis</i>   | Morpankhi             | Cupressaceae    | T | 20  |
| 82 | <i>Polypodioides lachnopus</i>  | Fern                  | Polypodiceae    | H | 10  |
| 83 | <i>Polystichum squarrosus</i>   | Ladder fern           | Dryopteridaceae | S | 10  |
| 84 | <i>Portulaca grandiflora</i>    | Eleven 'o clock plant | Portulacaceae   | H | 15  |
| 85 | <i>Prunus persica</i>           | Peach                 | Rosaceae        | T | 6   |
| 86 | <i>Pteris asperandis</i>        | Fern                  | Pteridodeceae   | H | 10  |
| 87 | <i>Pteris cretica L.</i>        | Ribbon fern           | Pteridaceae     | H | 15  |
| 88 | <i>Pyracantha cremulate</i>     | Ghingharu             | Rosaceae        | S | 3   |
| 89 | <i>Punica granatum</i>          | Darim                 | Lythraceae      | T | 1   |
| 90 | <i>Pyrus pashia</i>             | Mehal                 | Rosaceae        | T | 1   |
| 91 | <i>Quercus ilex</i>             | Holly oak             | Fagaceae        | T | 10  |
| 92 | <i>Rhododendron arborium</i>    | Lal Buransh           | Ericaceae       | T | 5   |
| 93 | <i>Rosa indica</i>              | Desi Gulab            | Rosaceae        | S | 5   |
| 94 | <i>Rubia cardifolia</i>         | Indian Maddar         | Rubiaceae       | C | 6   |
| 95 | <i>Rubus ellipticus</i>         | Hisalu                | Rosaceae        | S | 5   |
| 96 | <i>Rubus niveus</i>             | Kala hishalu          | Rosaceae        | S | 3   |
| 97 | <i>Rumex hastatus</i>           | Khatti Butti          | Polygonaceae    | H | 30  |

## Green Audit Report

|     |                                  |                       |                 |   |        |
|-----|----------------------------------|-----------------------|-----------------|---|--------|
| 98  | <i>Saccharum spontaneum</i>      | Wild sugarcane        | Poaceae         | H | 40     |
| 99  | <i>Salvia leucantha</i>          | Maxican bush sage     | Lamiaceae       | H | 10     |
| 100 | <i>Sedum rubrotinctum</i>        | Jelly beans           | Crassulaceae    | H | 5      |
| 101 | <i>Silybum marianum</i>          | Milk thistle          | Asteraceae      | H | 8      |
| 102 | <i>Solanum pseudocapsicum</i>    | Jerusalem cherry      | Solanaceae      | S | 50     |
| 103 | <i>Spiraea vanescens</i>         | Grey stem spirea      | Asteraceae      | S | 40     |
| 104 | <i>Stellaria media</i>           | Chick weed            | Caryophyllaceae | H | 50     |
| 105 | <i>Tagetes minuta</i>            | Wild marigold         | Asteraceae      | H | 30     |
| 106 | <i>Thalictrum aquiligifolium</i> | Penyaale              | Ranunculaceae   | H | 10     |
| 107 | <i>Thunbergia aureum</i>         | Black eyed susan vine | Arcaceae        | C | 2      |
| 108 | <i>Tinospora cordifolia</i>      | Heart Leaved          | Menispermaceae  | H | 5      |
| 109 | <i>Toona ciliate</i>             | Toona                 | Meliaceae       | T | 2      |
| 110 | <i>Tradescantia pallid</i>       | Purple heart          | Commelinaceae   | H | 5      |
| 111 | <i>Trifolium repens</i>          | White clover          | Fabaceae        | H | 90-100 |
| 112 | <i>Urtica dioica</i>             | Bichhu Grass          | Urticaceae      | S | 10     |
| 113 | <i>Verbena banariensis</i>       | Pretty Verbena        | Verbenaceae     | H | 5      |
| 114 | <i>Xanthium strumarium</i>       | Rough cocklebur       | Asteraceae      | H | 3      |
| 115 | <i>Youngia Japonica</i>          | Oriental False        | Asteraceae      | H | 10     |

**Table 2: Vegetables cultivated in Household Gardens in college campus**

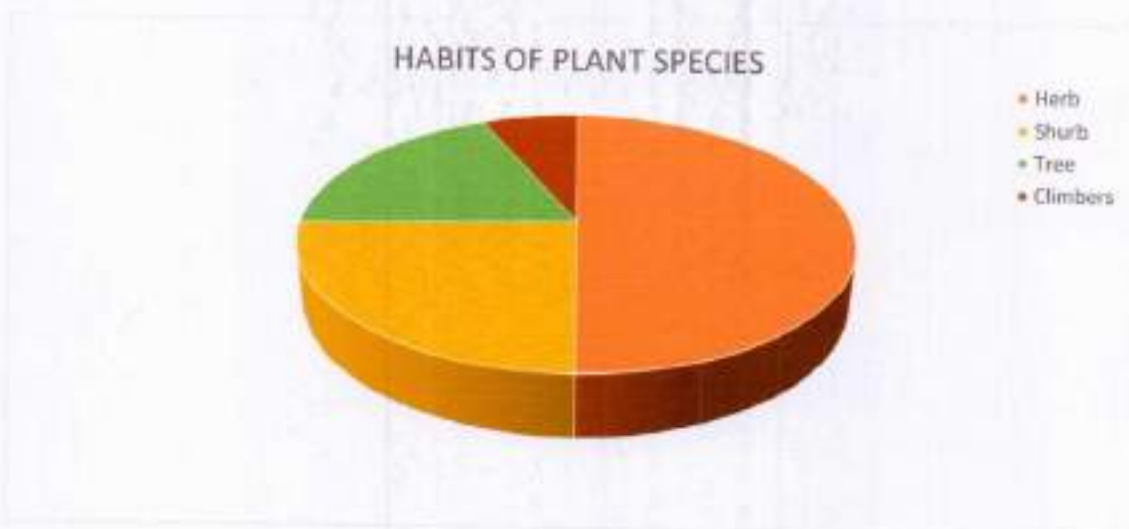
| s.no. | Botanical name             | Common name           | Family   | Habit | Number |
|-------|----------------------------|-----------------------|----------|-------|--------|
| 1     | <i>Colocasia esculenta</i> | Gaderi / pinalu /arbi | Araceae  | T     | 10     |
| 2     | <i>Phaseolus vulgaris</i>  | Bean                  | Fabaceae | T     | 15     |



## Green Audit Report

|   |                                  |                                       |               |   |       |
|---|----------------------------------|---------------------------------------|---------------|---|-------|
| 3 | <i>Momordica charantia</i>       | Karela, bitter guard                  | Cucurbitaceae | C | 10    |
| 4 | <i>Lagenaria siceraria</i>       | Lauki, battle gourd                   | Cucurbitaceae | C | 5     |
| 5 | <i>Fagopyrum esculentum</i>      | Ugal, buckwheat                       | Polygonaceae  | H | 5     |
| 6 | <i>Capsicum annum</i>            | Mirch, chilly                         | Solanaceae    | S | 15-20 |
| 7 | <i>Curcubita pepa</i>            | Kaddu pumpkin                         | Cucurbitaceae | C | 5     |
| 8 | <i>Cyclanthera pedata</i>        | Ramkerala /meetha karela, sweet guard | Cucurbitaceae | H | 10    |
| 9 | <i>Lycopersicon lycopersicum</i> | Tamatar                               | Solanaceae    | S | 8-10  |

H=Herb, S=Shrub, T= Tree, C=Climber



***Proportion of herbs, shrubs, trees, and climbers in the college area***

**Pictures of Fauna and flora of the College:**

*Common Butterfly & Local Birds known Hilly Mania*



*Leopard Known as 'Pahari Tenduwa' & Monkey occasionally seen at near College Campus.*

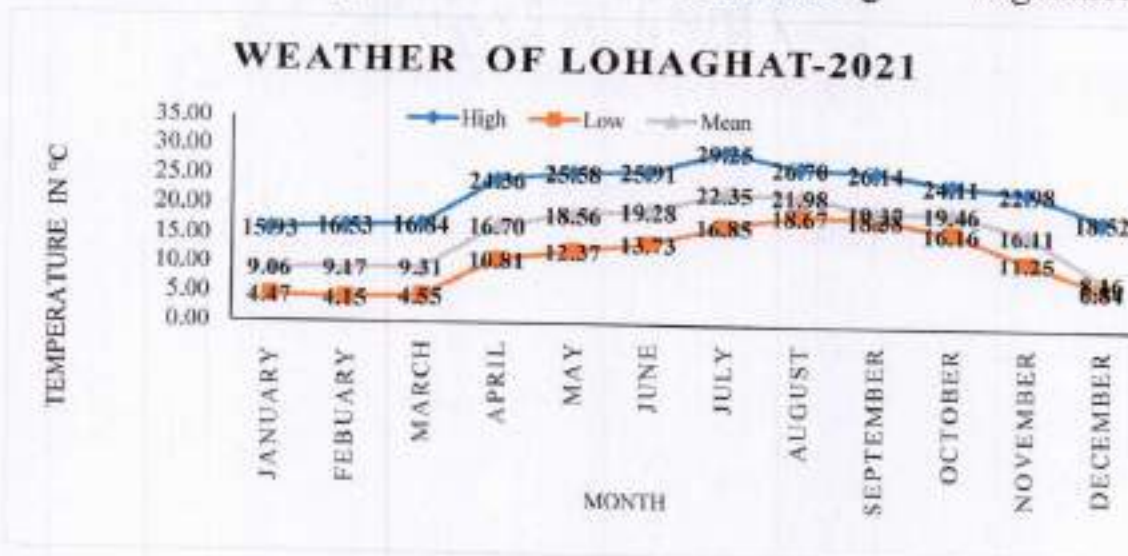


### 8.3 Water purity of the campus:

Clean potable water is important for society health. The term water quality is generally used to describe the chemical, physical and biological characteristics of water, usually concerning the suitability for a particular use. Forest plays an important role in producing and regulating the flow of water. The college has its own water pipeline directly comes from the oak forest spring of Forti village of Lohaghat. Besides this Storage tank has **PLC Based centralized automatic bacteriological treatment plant with an online comprehensive water analyser as per standard (IS:105001991/2012).**

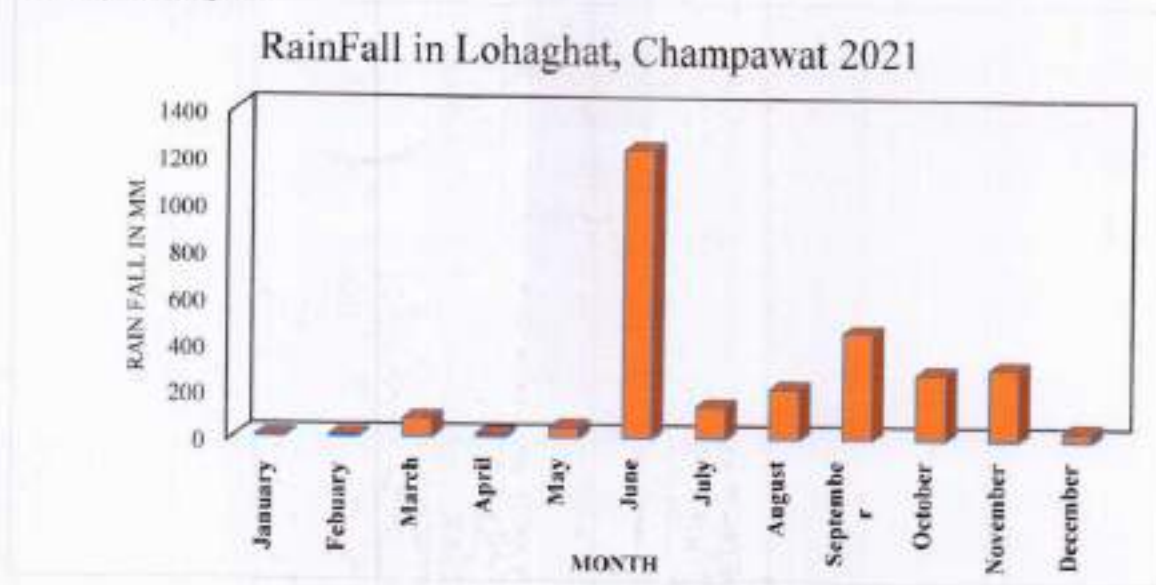
### 8.4 Weather report of college:

The graph represents the highest temperature recorded at 29.25 °C in July month which shows that area of the college is very cool and peaceful. Soil PH of the college area is 6.9. Plants do not grow well when the soil is either too acidic or too bitter, so, Soil PH of the college campus is perfect for surrounding vegetation.



**Rainfall Pattern –**

Good rainfall produces good vegetation in that area: Graph below showed an effective rainfall pattern in the surrounding area of the college campus.



***Soil testing Machine at Laboratory, Lohaghat***

## Green Audit Report



*Green Audit team visited Krishi Vigyan Kendra Lohaghat for collection of weather/Rainfalls Data of Lohaghat Region.*



*Green Audit team visited Soil Testing Laboratory for collecting the data of sounding the College Campus*

### **8.6 Existing energy management on the campus**

- Average Electricity Bills per month are of the values of Rs 17716/- and 3200 unit, which is comparatively low with other Colleges.
- The college has LED tubes and lights.
- Spacious design of rooms and Ventilation reduce the energy consumption of college
- Wiring and electrical Maintains are periodically monitored and replacements are made.

### **8.7 Noise pollution management on the campus:**

Plants are the perfect antidote to noise, so noise can be reduced by planting trees and herbs. The College is situated in peaceful area which is 2 km far from town so there is no noise of traffic, anthropogenic activity. The college has the proper functioning of a discipline committee which helps maintaining proper discipline and silence in college campus.

### **8.8 Waste Management Practices adopted by the college:**

For the last few years, the college is following zero organic waste protocol throughout the campus. The food waste generated by the students and staff is taken by them to their own homes, so that, minimum waste is generated inside the campus. In addition, the organic waste generated in the canteen is used as feed for cattle. Old assignment Paper waste and other leaf litter are dumped into vermicompost pit and the resulting vermin cast is used as manure in the garden. The chemicals from the laboratories are disposed of in a

## Green Audit Report

sealed tank along with water so that the chemicals undergo neutralization with the water.



*Digging a pit for organic waste material (old assignment papers) and production of organic manure at college campus.*

### 8.9 Awareness Programme for pollution control:

The College has been continuously conducting awareness programs for staff, students, and society for protecting & conserving water and controlling water pollution & air pollution to maintain the clean

environment. The awareness is also created by arranging sensitization programs, and rallies on various issues related to the environment and health. The college students and faculty members are involved in the activities through NSS/NCC, Eco-Club and various activities to spread awareness such as essay, speech, and drama etc.

**Celebrations of Harela festival at college campus** -Harela is the famous local festival of Uttarakhand which marks the onset of the rainy-season. Local people pray for good harvest and prosperity. Harela means '*day of green*' so this festival brings lots of awareness to protect surrounding nature and natural resources. College every year celebrates this festival by plantations. This year about 100 plants are planted in near the college area.

**Best Practices:**

- Involvement of students in maintaining herbal and medicinal garden
- Participation of teachers in different environment-related workshops for students and local people.
- Initiation of vermicompost with organic waste material at college campus.
- Promoting students to Recycling of waste materials like plastic and electric west to decorative things and pots.
- Celebration of Environmental day, No Tobacco Day, No Smoking Day, water conservation day, etc.



## Green Audit Report

- Initiation of reducing paperwork to save trees by promoting a digital system.
- These activities are organized on regular basis, sufficient to indicate students and teachers are actively involved in green activities on campus.



*Flower Plants Planted by Department of Political science in College Premise*



*Sunflower seeds collecting by the Political Science Students*

# Green Audit Report



Himanshu Rai Youtube Channal



Himanshu Rai Youtube Channal

Himanshu Rai Youtube Channal



Himanshu Rai Youtube Channal



Himanshu Rai Youtube Channal



Lohaghat, Uttarakhand, India  
Degree College Rd, Rai Nagar, Lohaghat, Uttarakhand 262524, India  
Lat N 29° 23' 43.5408"  
Long E 80° 5' 36.9852"  
15/07/21 10:43 AM



NEW TREES PLANTED BY THE SANGRETHI SUPPLY PRINCIPAL

**DAINIK JAGRAN, LOHAGHAT 29/09/2021**



**राजनीति विज्ञान के विद्यार्थियों ने चलाया सफाई अभियान**

संस्कृत राजनीति विज्ञान के विद्यार्थियों ने सफाई अभियान चलाया। छात्रों ने कैंपस में कचरा इकट्ठा करके उसे सफाई करवाया।

संस्कृत राजनीति विज्ञान के विद्यार्थियों ने सफाई अभियान चलाया। छात्रों ने कैंपस में कचरा इकट्ठा करके उसे सफाई करवाया।



Lohaghat, Uttarakhand, India  
 Dainik Jagran, Lohaghat, Uttarakhand, India  
 29/09/2021

**GEMS OF OURS COLLEGE**



**GEMS OF OURS COLLEGE**

**GEMS OF OURS COLLEGE**



## Green Audit Report



# Green Audit Report



Green Audit Report



# Green Audit Report



# Green Audit Report





 Rai Nagar  
 Lohaghat, Uttarakhand, India  
 Degree College Rd, Rai Nagar, Lohaghat, Uttarakhand 262524, India  
 Lat N 29° 27' 43.428"  
 Long E 80° 5' 31.398"  
 15/07/21 11:55 AM




 Rai Nagar  
 Lohaghat, Uttarakhand, India  
 Degree College Rd, Rai Nagar, Lohaghat, Uttarakhand 262524, India  
 Lat N 29° 27' 43.7268"  
 Long E 80° 5' 37.1307"  
 15/07/21 11:58 AM




 Rai Nagar  
 Lohaghat, Uttarakhand, India  
 Degree College Rd, Rai Nagar, Lohaghat, Uttarakhand 262524, India  
 Lat N 29° 27' 43.388"  
 Long E 80° 5' 37.168"  
 17/07/21 06:08 PM




 Rai Nagar  
 Lohaghat, Uttarakhand, India  
 Degree College Rd, Rai Nagar, Lohaghat, Uttarakhand 262524, India  
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 Long E 80° 5' 41.2188"  
 17/07/21 05:03 PM




 Rai Nagar  
 Lohaghat, Uttarakhand, India  
 Degree College Rd, Rai Nagar, Lohaghat, Uttarakhand 262524, India  
 Lat N 29° 27' 43.428"  
 Long E 80° 5' 37.328"  
 20/07/21 10:07 AM

**PLANT COVERED BY TREE GUARD**



## 9. Recommendations:

- Display boards appealing for conservation of Environment in the college Campus.
- Save Water posters to be affixed in the classrooms, and hand washing areas.
- Repair water leaks and leaky toilets immediately
- Name all the trees and plants with its common name and scientific name.
- Introduce add-on courses eco-friendly income generating to all interested students.
- Declare the campus plastic free and implement it thoroughly.

## 10. Conclusion:

From the green audit of the college following conclusions, are found out.

- All departments generate paper waste. Especially, academic building is practicing to make organic manure vermi compose technique.
- E- waste are segregated, handled and disposed properly in an eco-friendly manner.
- Reducing the use of one-time items, decorative items will be useful to solve the problem of plastic pollution to some extent.
- Rainwater is collected from rooftop to recharge the ground water level table.
- College has applied for installation of Solar Energy equipment panels etc. through UREDA.



**Green Audit Committee with Dr. Sangeeta Gupta, Principal**