

GREEN AUDIT REPORT

Session-2022-23



GOVERNMENT POST GRADUATE COLLEGE UNA (H.P) District Una (H.P) Pin-174303

Conducted by IQAC & Green Audit team

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DISCLAIMER

Green audit team has prepared this report on the basis of primary data collected from the different areas of the college. It has been prepared with the utmost reasonable care, and the details that are included in this report have been compiled in good faith on the basis of the information that has been gathered.

Prepared by IQAC and Green audit team G. C. Una

ACKNOWLEDGEMENT

IQAC and Green Audit Assessment Team thanks to the Principal, Govt. P.G. College, Una, for assigning the task of Green Audit of this college to us. We appreciate the cooperation that we got from all the faculties and students during the entire process. Our special thanks are due to the Principal Dr. Satdev Bhardwaj for his warm support and encouragement. From very beginning till the end of the process. We are also thankful to the Jal Shakti Vibhag Una and D.F.O Una for Water Sample Test & helping us in collecting different data and analyzing them.

GREEN AUDIT

1 Introduction

Nature has provided us a beautiful gift in the form of 'Environment' for existence of life on planet earth. An environment is everything that surrounds us, including both living and non-living objects like water, soil, plants, and animals. Every creature depends on environment directly or indirectly. Environment provides air, food, water, sun light and many other things for survival. There are several environmental problems that the world is currently dealing with, both locally and globally. The main challenges we face at the global level are global warming, climate change, deforestation, pandemics, biodiversity loss, and desertification, while regional and local challenges include pollution, cyclones, floods, droughts, and heat waves. The main cause of the widespread environmental problems is human activities. In order to meet our needs, we have been utilizing a variety of natural resources in various ways. So, it is everyone's obligation to preserve and safeguard the environment. One of the most critical foundations of human existence has been biodiversity. The protection and sustainable use of biodiversity's components depend on regular inventories and monitoring of its components.

2 Concept of green audit

In order to improve environmental quality, public health, personal hygiene, and safety, green audits help to discover potential for sustainable development methods. An institution's numerous operations are identified, measured, recorded, and monitored in terms of their impact on the environment through the process of a "green audit." Every student has a naturalist's curiosity. Academic institutions can significantly improve environmental protection through the implementation of green audit. College initiatives can instruct students on how to practice various environmental behaviours that will improve the environment, such as planting trees, conserving electricity, managing trash and water, etc. An institution can become more responsible for preserving the environment, increase environmental knowledge and sensitization among all of its stakeholders, and raise awareness of ecological principles and ethics by regularly conducting green audits.

3 Objectives of green audit

- > To create awareness among students and staff for sustainable development.
- > To protect bio-diversity of college by taking care of rules and regulation.
- > To suggest the best protocols for well management and preservation of natural resources
- > To take steps towards eco-friendly approach.

4 Significance of green audit

- It portrays a good image of an institution which helps building better relationships with the group of interested parties.
- > Promotes the alertness for environmental guidelines and duties.
- Recognize the cost saving methods through waste minimization and management.
 Would help to prepare a plan to protect the environment.
- Ensures a better methodology by the institution for eco-friendly approach.

5 GREEN AUDIT EXECUTIVE SUMMERY REPORT

5.1 College profile

Govt. PG College Una has the rare distinction in Himachal Pradesh to be the first college with potential for excellence crowned by UGC. The college is affiliated to the Himachal Pradesh University (HPU), Shimla and recognized by the University Grants Commission (UGC) under 2f and 12b of UGC Act. Since 1968, the year of inception, the college has added many feathers to its cap and has passed the test of time. The faculty is committed to impart the contemporary and best education to the students. Govt. College Una embarked on its evolution in 1968 from a rented building of local DAV School. In 1993 the college shifted to its own building on Una-Nangal road. The College has completed 43 glorious years and during this it has registered tremendous growth in terms of enrolment, infrastructure diversification of options for the students etc. The growing aspirations of students and parents across the cross section of society are reflected in an increasing demand for education especially for job oriented professional courses in higher education system. Govt. P.G. College Una has taken a lead among all the colleges of the state to start MBA and MCA simultaneously from the academic session i.e. 2012-13. The six major departments of college are Science, Arts, Commerce, Computer Application, Management and Vocational. The college has been accredited with Grade B by NAAC (National Assessment and Accreditation Council) in the first cycle in the year 2016.

5.2 VISION AND MISSION OF COLLEGE

5.2.1 Vision:

May I never refrain from righteous deeds.

5.2.2 Mission:

The mission of Govt. P.G. College Una (H.P.) is to achieve the ultimate goal of education, i.e. emancipation of mind, in order to promote it as an institution of excellence by providing the rural youth with educational opportunities enriched with high moral and ethical values along with the

latest technology based knowledge so that students are well-fitted in the present-day volatile global scenario.

5.2.3 Objectives:

- To provide students with the market relevant, need specific and latest academic programs to enhance their professional competence.
- To create conducive academic environment for the students so as to develop the best of skills for pursuing knowledge.

5.2.4 Brief about college departments and faculty

- Number of Departments:UG-6, PG: 7 and PG Diploma: 1
- Number of Students: Boys: 1529, Girls- 2410
- Number of Faculty Members: 41
- Number of Non-Teaching Members: 47
- ➢ Total campus area: 274.0 kanal
 - Class rooms
 - Labs
 - Library
 - Multipurpose hall, BCA Hall, Conference Hall
 - Girls common room
 - Garbage collection bins

5.2.5 Efforts of college towards sustainable development

Both the teaching and Non-teaching staff of Government P.G.College Una are

committed for carrying out its activity towards eco-friendly approach.. This we will achieve through the following:

- > To sensitize the students and staff regarding the use of water and electricity properly.
- > To maintain green campus by maintaining herbal garden and botanical garden.
- To celebrate important days like environment day, water day etc. and to engage students in different activities like plantation in campus and awareness reallies in near locality.
- > To maximize the use of ICT and minimize the use of paper.
- > To protect and nurture the Flora and Fauna on the campus.

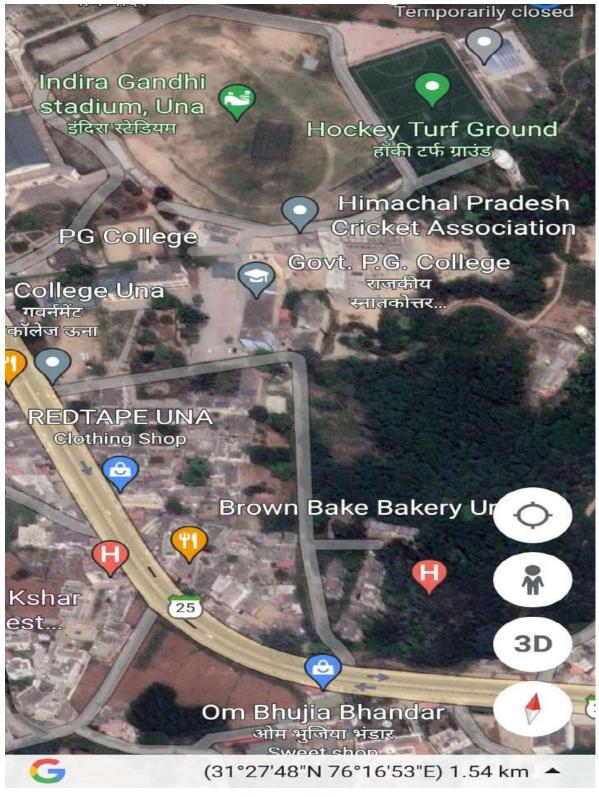


Figure 1 Location of College (Google earth image)



Figure 2 College map

6 Green audit checklists

The aim of the audit is to check the existing practices and provide advice for the development of environmental policy and practice in the areas of:

- ➢ Waste Management
- > Water conservation and management
- Green environment and clean campus
- Bio-diversity management

7 Members of green audit team

The following committee has been constituted to conduct the green audit.

table

| Table 1 Committee for Green Audit | | | | |
|-----------------------------------|--|---------------------|--|--|
| S.No. | Name | Designation | | |
| 4 | | | | |
| 1 | Dr.Satdev Bhardwaj | Principal | | |
| 2 | Dr. Darshan Dhiman (IQAC Co-Ordinator) | Associate Professor | | |
| 3 | Dr.Shveta Sharma (Convenor of G.A.C) | Assistant Professor | | |
| 4 | Dr. Sanjay Sharma (Member of G.A.C) | Assistant Professor | | |
| 5 | MS.Promila Devi (Member of G.A.C) | Assistant Professor | | |
| 6 | Dr.Gagandeep Singh (Member of G.A.C) | Assistant Professor | | |
| 7 | MS.Richa Sharma (Member of G.A.C) | Assistant Professor | | |
| 8 | Mr.Vikas Kumar (Member of G.A.C) | Assistant Professor | | |

8 Methodology

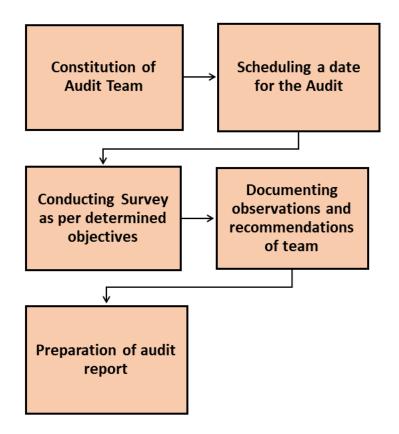


Figure 3 Methodology opted for the green audit.

Constitution of audit team

A six-member audit team was constituted consisting of internal members and then report was verified by Divisional Forest Officer (DFO), Una.

Scheduling the date of audit

The audit team met with staff members on the scheduled date and gathered the necessary data. The college's biodiversity has been verified by an internal auditing team.

Conducting survey as per determined objectives

The audit's objectives were determined in advance, and it was decided that a campus wide survey would be conducted to evaluate progress towards those goals.

Documenting observations and recommendations of the team

The audit team has recorded the observations and collected the necessary data from various sources and finally the recommendations were put forward by the team.

Preparation of audit report

A detailed green audit was prepared. The same report will be uploaded to the college website.

9 Waste Management

In order to maintain a clean environment and manage the many types of trash generated by the college, the following management strategies are adopted.

9.1 Solid waste management:

To keep the campus neat and clean and for the convenience of users the dustbins are placed in labs, on each floor of the college building along and in many places in the campus. As part of their service, NSS volunteers occasionally conduct campus cleanups. In science laboratories a wide variety of trash is produced. The solid items, including broken glass, packing, paper, samples, and equipment, are disposed off in a tank that has been specifically designed for this purpose.

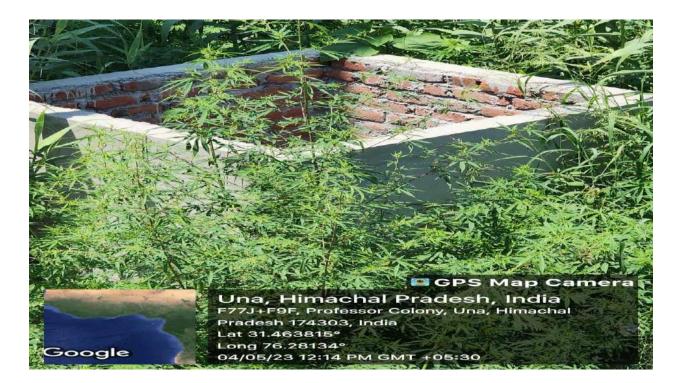


Figure 4 Pit to collect solid waste.



Figure 5 Dustbin installed in the campus.

| DL | JRGA E | NTRP | RISE | S |
|-----------------------------|--|-----------------------------------|-------------------------------|--------------------|
| WAR | O NO 4 VIKAS NAG | AR NANGAL RO | | |
| | | | PI | H 9817075053 |
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Figure 6 Receipt by Durga enterprise (Waste paper collector).

9.2 Liquid waste Management:

Underground sewage tanks have been constructed for the management of liquid and sewage waste produced in the college.

9.3 e-Waste management:

The amount of e-waste produced by the college is rather low. All the e-waste produced is stored in a separate room. The efforts would be made to sign MoU with some e-waste management corporates in near future.



Figure 7 Store to collect e-waste.

10 Water Usage and Management

Water is the basis of life for not only humans but all living beings on the earth. It is one of the most precious, essential and important resources on this planet. It is water that helps us to lead a healthy and comfortable life .It is estimated that two-thirds of the earth is covered in water. However, only a small part of this (about 0.3%) can be used by humans. The other 99.7% is in the oceans, icecaps, soils and captured in the environment. Still, enough of 0.3 percent is out of reach. Therefore, there is a need to understand the significance of water and spread awareness for its efficient use. Our college examine the quality and usage of water in college campus.

| | water resources, storage, usages, and management |
|-----------------|---|
| Water Resources | The college receives water supply from two sources: |
| | Municipal water Supply |
| | Borewell water Supply |
| Water Storage | Water from both sources is stored in separate tanks located on the |
| | terrace as well as in one large tank constructed near the Boys Hostel |
| Water Usage | For Drinking |
| | For Cleaning and Mopping |
| | ➢ Gardening |
| | Cooking and washing in canteen and kitchen |
| | ➢ In toilets, Urinals |
| | Other miscellaneous uses like construction work. |
| Water | The college has constituted the 'Water Supply Restoration Committee |
| Management | which |
| | Ensures the proper water supply in the college campus. |
| | Regularly monitored the taps and pipes in order to prevent ar water leakages |

| Awareness | Students are made aware of the importance of water and encouraged to | |
|------------|--|--|
| Programmes | prevent its excessive use through | |
| | > EVS course | |
| | Awareness and Cleanliness Drives (By NCC/NSS/R&R Units | |
| | and various clubs of the college) | |
| | | |
| | | |

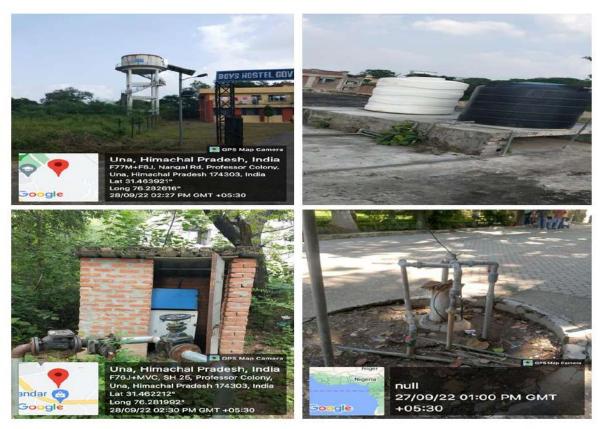


Figure 8 Water Storage in Tanks , distribution and control system for proper water supply.

10.1 Water Quality Assessment Report

Water samples from the college storage tank has been sent to water testing laboratory, and the report has been attached.

| | | JAL SHAKTI VIBHAG, UN <u>TEST REPORT</u> | | | |
|---------------------------------|--|---|--|--------------------------------|---|
| Test Re | port No: DWTL-UNA-20 | 23- NTL/23-01 | - | Date:- 02 | 3.04.203 |
| Sar Sar Col Tes Tes | me & Address of Customer: mpling Method: NA mple Description: Pater mple Quantity: 2 Life lected on: al. al. 2023 t Start Date: al. al. 2023 t Start Date: al. al. 2023 ironmental Conditions: effectives | Name of Panchayat: Name of Habitation: Name of Village Type of Source: | When Received: c eme: Waler & Una Professor G na | they to a | o-41. Cleege |
| Sr. No. | Test | Test Method | Result | Requirements As per IS 1050 | 0:2012 |
| | | | | Acceptable Limit | Permissible limit in the absence of Alternate Source |
| - | | Physical Pa | rameters | | |
| I. | Turbidity , NTU ,Max | 1S:3025(P-10) | 1.5 | 1 NTU | 5 NTU |
| 2. | Colour, Hazen units, Max | IS:3025(P-4) | B02(02=5) | 5 | 15 |
| 3. | Odour | 1S-3025 (Part 5): 2018 | Agreeable | Agreeable | Agreeable |
| 4. | Taste | IS-3025 (Part 7&8): 2017 | NotPestor | Agreeable | Agreeable |
| 5. | pH value | 1S:3025(P-11) | 7.94 | 6.5-8.5 | No relaxation |
| 6. | Total Dissolved Solids mg/L Max | IS:3025(P-16) | 310 | 500 mg/l | 2000 mg/l |
| | | Chemical Pa | rameters | | |
| 7. | Total Alkalinity (as CaCo ₂), mg/l, Max | IS:3025(P-23) (Titration Method |) 238 | 200 mg/l | 600 mg/l |
| 8. | Chloride (as Cl), mg/l, Mai | IS:3025(P-32) (Argentometric Method) | 16 | 250 mg/l | 1000 mg/l |
| 9. | Total Hardness (as CaCo ₂), mg/l, Max | IS:3025(P-21) (Titrimetric Method) | 240 | 200 mg/l | 600 mg/l |
| 10. | Calcium (as Ca), mg/l, Max | IS:3025(P-40) (EDTA Titrimetrie Method) | · 68.14 | 75 mg/l | 200 mg/l |
| 11. | Magnesium (as Mg), mg/l, Max | 15:3025(1 .6):2019 | 17.01 | 30 mg/l | 100 mg/l |
| | marks (if any) BDL= Belo | w Detection Limit; DL= Detection L | 19 19 19 19 19 19 19 19 19 19 19 19 19 1 | | |

Testa By Water Testing Laboratory, Una No.1

Authorized Signatory Mrs. Shikha Thakur Water Testing Laboratory, Una No.1

Figure 9 Water testing report.

-----End of Report-----

10.2 Awareness Programme

World Water Day was celebrated on 22nd March,2023 under the theme: "Accelerating the change to solve the water and sanitation crisis" by the Eco Club of the college. The following activities were conducted by the eco club members on the occasion of world water day.

Theme: "Accelerating the change to solve the water and sanitation crisis"

- > Title song by eco club members on water importance and its conservation.
- Speech in Hindi by Kanchan BSc. 1st Med.
- Speech in English by Pratibha BSc. 1st Med.
- > Poem recitation on water by Nishant BSc. 1st Year
- A skit on water a natural resource and impacts due to scarcity.
- > A PPT presentation by Prof. Sanjay Sharma.



Figure 10 Activities performed by Eco club on the occasion of world water day.

11 Green environment and clean campus

11.1 Energy Generation through On Grid Top Roof Solar Panel

Solar power sector in India has emerged as a fast upcoming section in last few years. It supports the government agenda of sustainable growth, while, emerging as an integral part of the solution to meet the nation's energy needs and an essential player for energy security.

An on-grid or grid-tied solar system is a system that works along with the grid. This means that any excess or deficiency of power can be fed to the grid through net metering. Government Post Graduate College Una is opting for an On-grid solar system with capacity 15Kwp, to get a chance to enjoy credit for the excess power produces and save on their electricity bills per month to selling it to Himachal Pradesh State Electricity Board Limited (HPSEBL).

| Table 3 Energy Saving by Using Top roof Solar Panel on PTA Block | | | | | |
|--|-----------------------------|----------|--------|--|--|
| S.N. | Particular | Units | Value | | |
| 1 | Installation of Solar Power | Kwp | 15kwps | | |
| 2 | Annual Generation | Kwh/year | 18000 | | |
| 3 | Electrical Unit Cost | Rs./Kwh | 5.5 | | |
| 4 | Annual Monetary Value | Rs/year | 99000 | | |
| 5 | Investment | Rs./Kwh | 580000 | | |
| 6 | Simple Payback Period | Months | 64 | | |

| - | 100 | - | 34 | _ |
|-----|------|-----|----|-------|
| 1.0 | | 100 | | 5 |
| Di | 14 | R1 | Υ. | |
| 1.0 | 1.11 | | | 100.0 |

(HP GOVT ENERGY DEVELOPMENT AGENCY) UNA District Una (H.P.)

No. HIMURJA/ UNA/P. Plant (GC)2020-21 // 8

To

The Principal, Govt. College, Una, Distt. Una (H.P.)

Subject:

t: Regarding Installation of 15 KWp capacity Grid Connected Rooflop Solar Power Plant Installed at PTA Block Govt. College, Una Distt. Una H.P.

Sir.

On the above cited subject Your office Ensd. letter No. EDN/GCU/RUSA/2021-3150 dated 17.03.2021, proposal for installation of 15 Kwp Capacity Grid Connected Roof Top Solar Power Plant installed at PTA Block Govt. College, Una Distt. Una H.P., on non subsidized rates (Full Cost). So you are requested to deposit beneficiary share amounting to Rupees 5,85,900,- through Cheque/Demand draft/RTGS in favour of under Signed with in seven days, payable at Una. The

| Bank account detail is given below: . | | k account detail is given below: . Name of Bank | | Account No. |
|---------------------------------------|----------------|--|-------------|-----------------|
| Chia | Name | reatine or mann | | 912010054987538 |
| 1 200 | | Axis Bank, Una | UTIB0000857 | 912010034987335 |
| and the second | Una Disti. Ona | | | |

Yours faithfully,

Project Officer, Himurja Una Distt. Una(H.P.)

Acurer JOA IT

Dated : 2. 2 - 0

Sh

Figure 11 Bills of Grid connected Rooftop solar power Plant

(HP GOVT ENERGY DEVELOPMENT AGENCY) UNA District Una (H.P.)

No, HIMURJA/ UNA/P. Plant (GC)2020-21

Dated 27-03-2021

To

The Principal, Govt. College, Una, Distt. Una (H.P.)

Subject: Regarding Installation of 15 KWp capacity Grid Connected Rooftop Solar Power Plant Installed at PTA Block Govt. College, Una Dist. Una H.P.

Sir,

3

On the above cited subject Your office letter No. EDN/GCU/RUSA/2021-3234 dated 26.03.2021, for installation of 15 Kwp Capacity Grid Connected Roof Top Solar Power Plant installed at PTA Block Govt. College, Una Distt. Una H.P., The Bank account detail is given below:

| S.No. | Particular | Remarks |
|-------|------------------------|--|
| 1 | Name of account Holder | Project Officer, HIMURJA, Una Distt. Una HP. |
| 2 | GSTIN No. | 02AAATH6756L1DR |
| 3 | TAN No. | PLS13076A |
| 4 | Address with Pin Code | Project Officer, Himurja Una Distt. Una(H.P.) Pin-174303 |
| 5 | Mobile No./Tel. No. | 01975-226669 |
| 6 | Mail ID | Po.himurja.una@ gmail.com |
| 7 | Account No. | 912010054987538 |
| 8 | IFSC Code | UT1B0000857 |
| 9 | Name Of Bank | Axis Bank, Una |

Yours faithfully,

Sylka 2 Project Officer, Himurja Una Distt, Una(H.P.)

Figure 12 Detail of Grid connected Rooftop solar power Plant



Figure 13 Grid connected Rooftop solar power Plant.

11.2 Ventilated rooms in the college

The college has a number of well ventilated rooms receiving ample daylight, which helps in reducing the usage of tubelights and bulbs during classes.

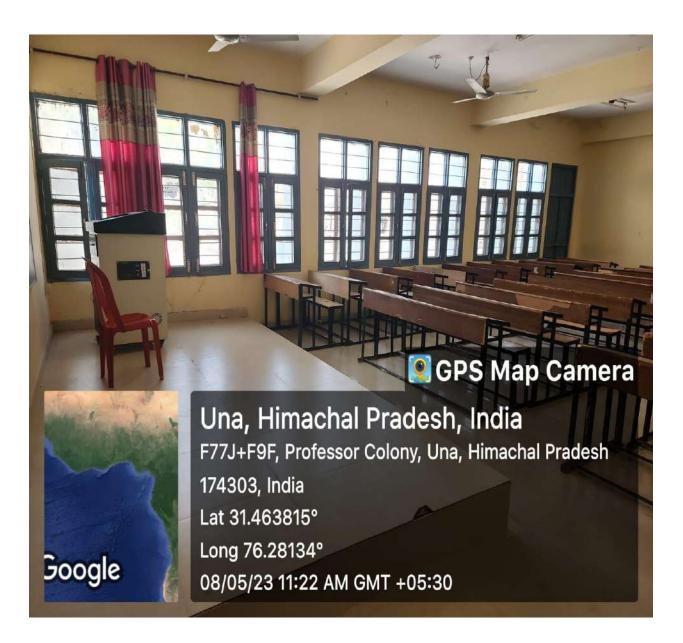


Figure 14 Well ventilated rooms in the college.



Figure 15 Well ventilated rooms in the college.

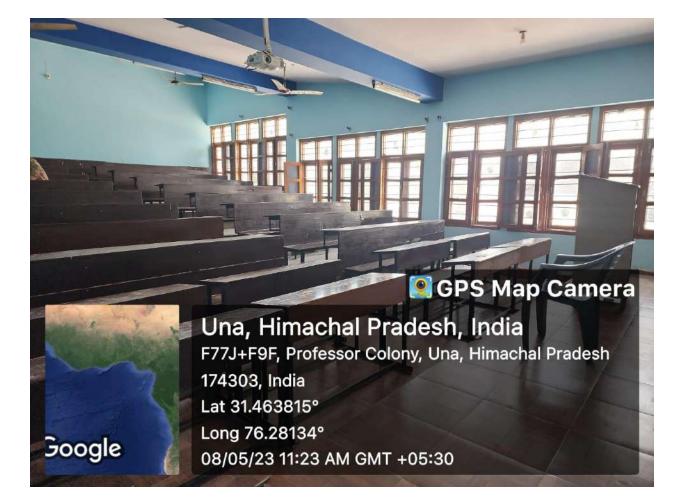


Figure 16 Well ventilated rooms in the college.

Various activities have been performed by the college students.

11.3 Declamation Contest

Declamation Contest under the theme "Environment Conservation and Cleanliness" was organized by the NSS unit of the college on the occasion of NSS Day on 24th September,2022.









Figure 17 Photographs of declamation contest.

11.4 Plantation Campaign

A Plantation Campaign was organized by the Eco Club in collaboration with the NSS, NCC and R&R unit of the college on 13th August,2022 with the theme 'Ek Ped Mere College Ke Naam'. A total of 100 saplings mainly consisting of fruits such as Litchi, Loquat and Mango besides some citrus plants were planted in the college and the Boys Hostel campus.



Figure 18 Photographs of plantation drive.

11.5 Cleanliness Drive

A cleanliness Drive was organized in the college campus on 22nd September, 2022 by the R&R unit of the college.



राजकीय महाविद्यालय ऊना की रोवर व रेंजर इकाई द्वारा महाविधालय में स्वच्छता अभियान चलाया गया। आज दिनाक 22 सितंबर 2022 को राजकीय महाविद्यालय ऊना में प्राचार्य प्रोफेसर सतदेव भारद्वाज जी की अध्यक्षता में महाविधालय में रोवर व रेंजर इकाई द्वारा स्वच्छता अभियान चलाया गया। जिसमें 40 रोवर व रेंजर volunteers ने महाविधालय कैंपस की सफाई की। सफाई अभियान में रोवर व स्काऊट लीडर डॉ० शाम सिंह बैंस व रेंजर लीडर डॉ० रंजू बनोटा जी मौजूद रहे। प्राचार्य प्रोफेसर सतदेव भारद्वाज जी ने अपने संबोधन में बताया कि यह जो सफाई अभियान चलाया गया है वह स्वच्छता अभियान को ध्यान में रखकर बनाया गया है।



Figure 19 Cleanliness drive celebrated by Rovers and rangers.

11.6 Painting competition on the occasion of National Pollution Prevention day

On the occasion of National Pollution prevention day a painting competition was organized by eco club of G.C. Una in the botany lab to create awareness among the society. Approximately 35 students participated in the competition and demonstrated the damage and control measures caused by pollution through pictures in the posters. Dr. K.K. Pandey and Dr. Vipul Gautam judged the event.

Results:

- 1. First prize: Ms. Aisha Khatun 22ZOO015
- 2. Second prize: Ms. Ankita 22ZOO013
- 3. Third prize: Mr. Nishant Khatun 22BOT019
 - Ms. Anita Bangar 22BOT022



Figure 20 Celebration of National pollution prevention day

12 Bio-diversity management Biodiversity Audit of college campus:

Biodiversity is a term used **to** represent the wealth of biological resources available in an area. Biodiversity not only helps to preserve and enhance cultural values, educational and research activities but also enhances recreational activities like bird watching and photography. Government College Una has an eco-friendly campus which is favoured by the topography, adequate rainfall and climatic conditions resulting in high species diversity in the campus. The campus of the college is naturally green and home to a wide variety of flora and fauna. It has a sprawling campus endowed with exotic beauty naturally gifted with a rich bio-diversity. More than 30% area of the campus is green having different species of trees, shrubs, and herbs. The College has established a botanical and herbal garden supported with more than 100 different types of plant species to enrich floral diversity of the campus with ornamental and ethno-medicinally important plants. We think that teaching students about biodiversity would inspire them to come up with innovative solutions for some of the most pressing global problems, like sustainability, natural resource management, climate change, and biodiversity loss. Field visits to different parts of college campus are conducted by the committee members along with students of eco club to assess the status of the green cover, floral and faunal diversity in the college campus for documentation

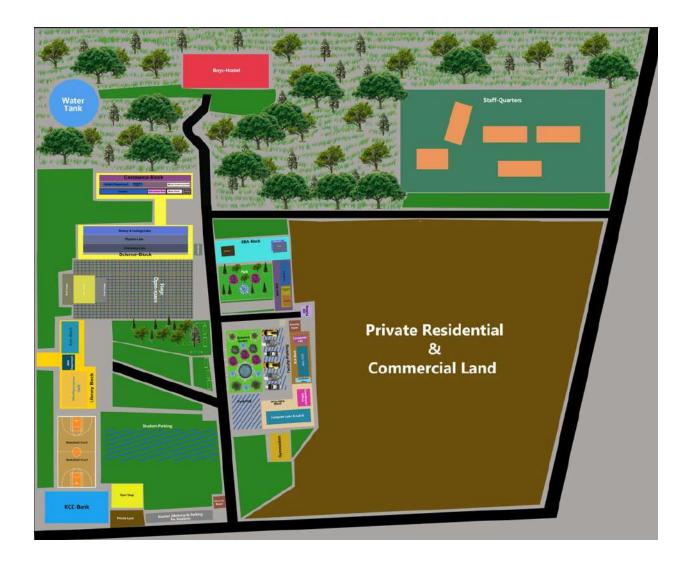
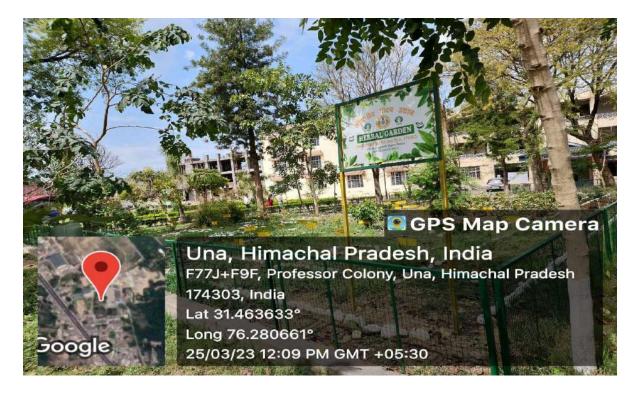


Figure 21 College map showing botanical garden, herbal garden.

List of Plants in the College Campus:

- ➢ Herbal Garden
- Botanical Garden
- Administrative Block Garden

12.1 Herbal Garden



List of Plants in Herbal Garden:

| Sr. | Common Name | Botanical name | Quantity |
|-----|---------------------|-------------------------|----------|
| No. | | | in No(s) |
| 1 | Amla | Phyllanthus emblica | 3 |
| 2 | Amaltas/ Golden | Cassia fistula | 5 |
| | shower | | |
| 3 | Behda | Terminalia bellirica | 1 |
| 4 | Parijat/ Harsingar | Nyctenthes arbortristis | 3 |
| 5 | Ban Tulsi | Oscimum basilicum | 2 |
| 6 | Grevillea/ Silver | Grevillea robusta | 3 |
| | Oak | | |
| 7 | Lemon Grass | Cymbopogon citratus | 2 |
| 8 | Stevia (Candy leaf) | Stevia rebaudiana | 5 |
| 9 | Podina | Mentha arvensis | 20 |
| 10 | Sarpgandha | Rauwolfia serpentina | 1 |
| 11 | Curry leaf | Murraya koenigii | 2 |
| 12 | Satavari | Asparagus racemosus | 1 |
| 13 | Guava | Psidium guajava | 1 |
| 14 | Jamun | Syzygium cumini | 1 |
| 15 | Mango | Mangifera indica | 1 |

| 16 | Lichi | Lichi chinesis | 1 |
|----|---------------|----------------------|---|
| 17 | Nimbo | Citrus limon | 2 |
| 18 | Nagkesar | Mesua ferrea | 2 |
| 19 | Loung | Syzygiumaromaticum | 2 |
| 20 | Choti Elaichi | Elettaria cardamomum | 2 |
| 21 | Arjun | Terminalia arjuna | 1 |
| 22 | Rudraksh | Elaeocarpus ganitrus | 1 |
| 23 | Kachnar | Bauheniavariegata | 1 |
| 24 | Mango | Mangifera indica | 1 |
| 25 | Ashwangandha | Withaniasominfera | 2 |
| 26 | Tulsi | Ocimum sanctum | 2 |
| 27 | Shehtoot | Morus alba | 1 |
| 28 | Aloe vera | Aloe barbadensis | 1 |
| 29 | Indian Siris | Albizia lebbeck | 1 |





Stevia : Stevia rebaudiana

Choti Elaichi: Elettaria cardamomum



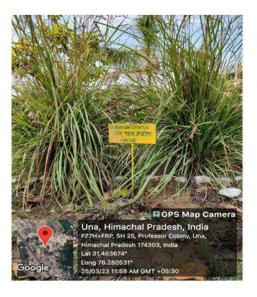
Ashawgandha: Withania somnifera



Nagkesar: Mesua ferrea



Parijat/ Harsingar: Nyctenthes arbor-tristis citratus



Lemon grass: Cymbopogon



Amaltas: Cassia fistula



Lichi: Lichi chinesis



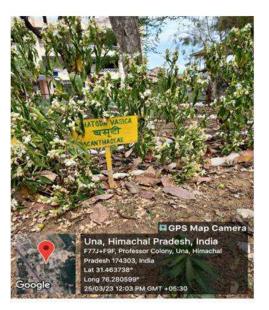
Silver Oak : Grevillea arobusta ganitrus



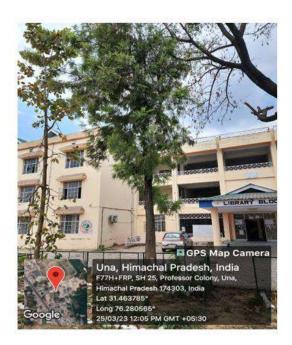
Rudraksh: Elaeocarpus



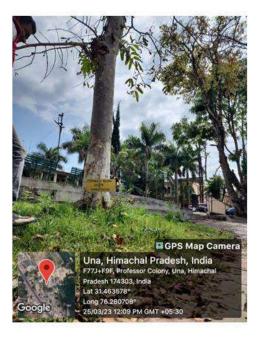
Loung: Syzygium aromaticum



Vasaka: Adhatoda vasica



Silver Oak : Grevillea arobusta



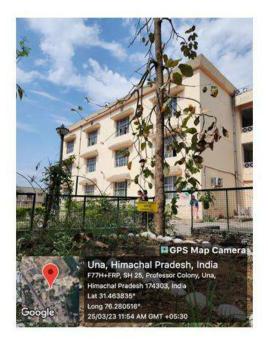
Arjun: Terminalia arjuna



Aloe: Aloe barbedensis



Sagwan/ Teak: Tectona grandis



Behda : Terminalia bellirica



Ban Tulsi: Oscimum basilicum



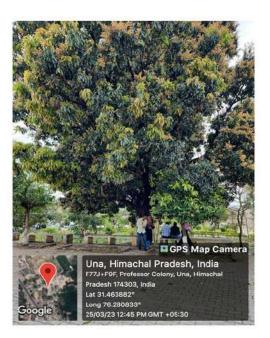
Nimbo:Citrus limon



Amla: Emblica officinalis

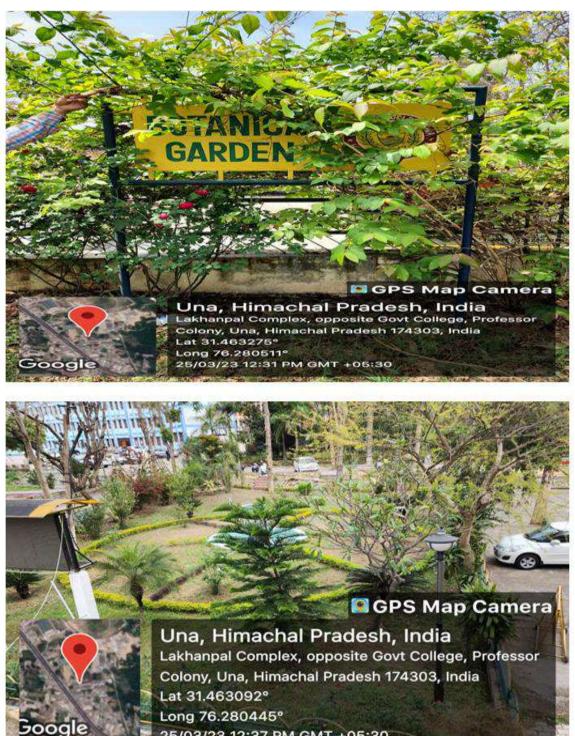


Orange: Citrus Sinensis



Mango: Mangifera indica

12.2 Botanical Garden

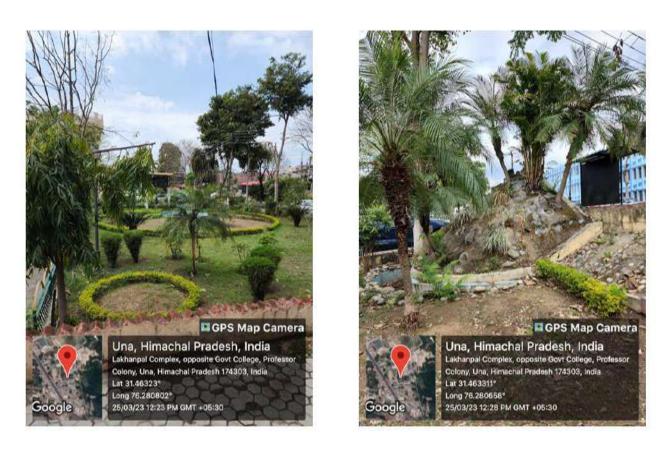


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| Sr. No. | Common Name | Botanical name | Quantity in No(s) |
|------------|---------------------|-------------------------|----------------------|
| 1 | Amla | Phyllanthus emblica | 2 |
| 2 | Grevillea/ Silver | Grevillea robusta | 1 |
| 3 | Oak Arjun | Terminalia arjuna | 1 |
| 4 | | | 1 |
| 4 | Rudraksh | Elaeocarpus ganitrus | |
| 5 | Kachnar | Bauhenia variegata | 1 |
| 6 | Foxtail Palm | Wodyetia bifurcata | 2 |
| 7 | Phoenix Palm | Phoenix Canariensis | 1 |
| 8 | Stevia (Candy leaf) | Stevia rebaudiana | 5 |
| 9 | Bottle Brush | Callistemon lanceolatus | 2 |
| 10 | Sarpgandha | Rauwolfia serpentina | 1 |
| 11 | Plumeria | Plumeria obtusa | 1 |
| 12 | Satavari | Asparagus racemosus | 5 |
| 13 | Pigeon berry | Duranta sp. | 100 |
| 14 | Patharchat | Bryophyllum pinnatum | 2 |
| 15 | Ashwangandha | Withaniasominfera | 2 |
| 16 | Tulsi | Ocimum sanctum | 2 |
| 17 | Rose | Rosa indica | 2 |
| 18 | Rose almond | Rosa floribunda | 1 |
| 19 | Edward Rose | Rosa bourboniana | 1 |
| 20 | Hybrid China Rose | Hibiscus rosa-sinensis | 1 |
| 21 | Arjun | Terminalia arjuna | 1 |
| 22 | Rangoon creeper | Quisqualis indica | 2 |
| 23 | Gudhal | Hibiscus rosa-sinensis | 1 |
| 24 | Furcaria | Furcraea foetida | 4 |
| 25 | Aloe vera | Aloe barbadensis | 1 |
| 26 | Yucca | Yucca filamentosa | 1 |
| 27 | Weeping Fig | Ficus benjamina | 1 |
| 28 | Lady Palm | Rhapis excelsa | 1 |
| 29 | Golden `Saplera | Schefflera arboricola | 2 |
| 30 | Bougainvillea | Bougainvillea glabra | 2 |
| 31 | Gloy | Tinospora | 1 |
| 32 | Cycas | Cycas revoluta | 2 |
| 33 | Morpankhi | Thusa occidentalis | 2 |
| 34 | Ashoka | Polyalthia longifolia | 5 |
| 35 | Tecoma | Tecoma stans | 1 |
| 36 | Dracaena | Dracaena reflexa | 2 |
| 37 | Chitrak | Plumbago zeylenica | 2 |

List of Plants in Botanical Garden:

| 38 | Kala Bansa | Barleria prionitis | 1 |
|----|--------------|-----------------------|---|
| 39 | Crape Myrtle | Logerstroemio Spedoso | 1 |
| 40 | Areca Palm | Dypsis lutescens | 3 |

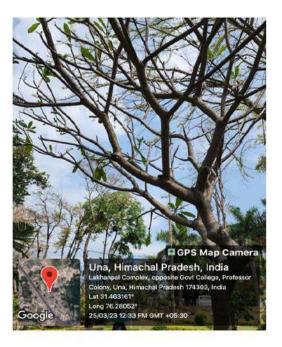


Foxtail Palm: Wodyetia bifurcata

Phoenix Palm: Phoenix Canariensis



Bottle brush: Callistemon lanceolatus



Plumeria: Plumeria obtusa



Patharchat: Bryophyllum pinnatum



Satavari: Asparagus racemosus



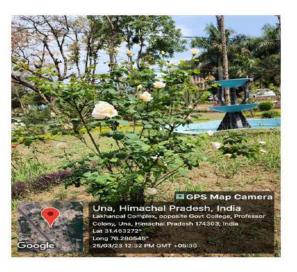
Pigeon Berry: Duranta sp.



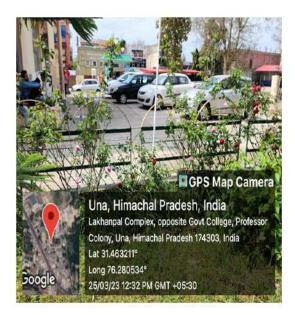
Orange Jasmine: Murraya exotica



Rose: Rosa indica



Rose almond: Rosa floribunda



Edward Rose: Rosa bourboniana



Rose: Rosa indica



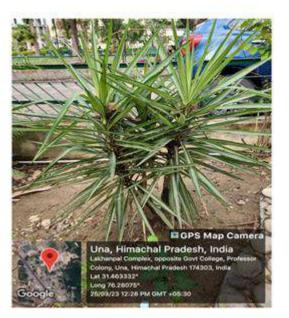
Rangoon creeper: Quisqualis indica



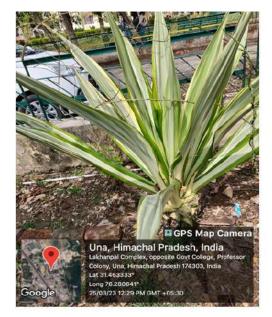
Arjun: Terminalia arjuna



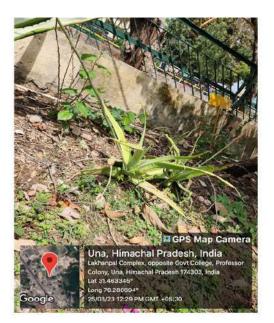
Hybrid China Rose: Hibiscus rosa-sinensis



Yucca: Yucca filamentosa



Furcaria: Furcraea foetida



Aloe: Aloe barbedensis

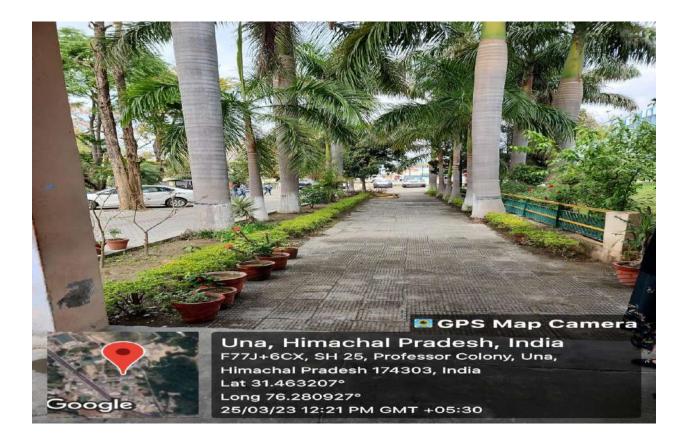




Lady Palm: *Rhapis excelsa*

Saplera: Schefflera arboricola

12.3 Administration Block Garden



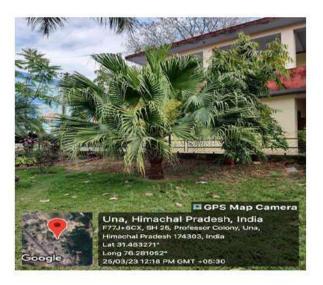
List of <u>Plants in Administrative Block Garden:</u>

| Sr. | Common Name | Botanical name | Quantity |
|-----|----------------|-----------------------|----------|
| No. | | | in No(s) |
| 1 | Cycas Palm | Cycas revoluta | 3 |
| 2 | Weeping Fig | Ficus benjamina | 1 |
| 3 | Lady Palm | Rhapis excelsa | 1 |
| 4 | Golden Saplera | Schefflera arboricola | 2 |
| 5 | Areca Palm | Dypsis lutescens | 3 |
| 6 | Foxtail Palm | Wodyetia bifurcata | 2 |
| 7 | Phoenix Palm | Phoenix Canariensis | 1 |
| 8 | Royal Palm | Roystonea regia | 10 |

| 9 | Chinese Fan Palm | Livistona chinensis | 2 |
|----|------------------|-----------------------|----|
| 10 | Edward Rose | Rosa bourboniana | 1 |
| 11 | Dracaena | Dracaena reflexa | 2 |
| 12 | Teak/ Sagwan | Tectona grandis | 5 |
| 13 | Pigeon berry | Duranta sp. | 10 |
| 14 | Patharchat | Bryophyllum pinnatum | 2 |
| 15 | Ashoka | Polyalthia longifolia | 5 |
| 16 | Salvia | Salvia sylvestris | 2 |
| 17 | Crown of Thorns | Euphorbia splendis | 2 |
| 18 | Ponytail Palm | Beaucarnea recurvata | 2 |
| 19 | Rose | Rosa indica | 2 |
| 20 | Rose almond | Rosa floribunda | 1 |
| 21 | Jaggery Palm | Caryota urens | 1 |
| 22 | Juniper | Juniperus | 2 |
| 23 | Peepal | Ficus religiosa | 1 |







Chinese Fan Palm: *Livistona chinensis*



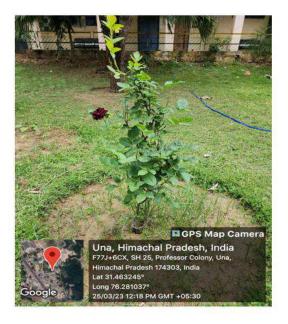
Orange Jasmine: Murraya exotica



Royal Palm: Roystonea regia



Rose: Rosa centifolia



Black Baccara Rose: Rosa black baccara



Midas Touch Rose: Rosa foetida australis



Baby Doll Ti Plant: Cordyline



Golden Saplera: Schefflera arboricola

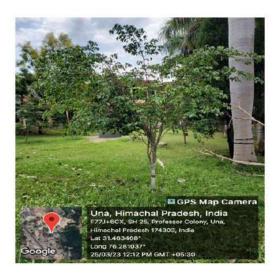
Cycas Palm: Cycas revoluta



Areca Palm: Dypsis lutescens



Ponytail Palm: Beaucarnea recurvata



Weeping Fig: Ficus benjamina

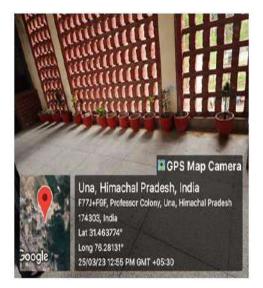


Gudhal: Hibiscus rosa-sinensis

12.4 Ornamental Plants





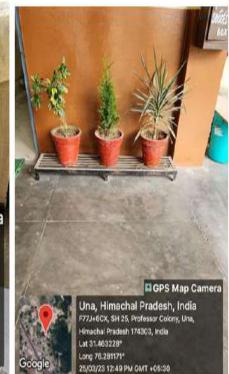




















12.5 Quiz Competition on Biodiversity

A quiz competition was organized by eco club of G.C. Una on 16th Dec., 2022 on the theme of "Biodiversity". Then after a visit to herbal garden was organized and a cleanliness drive was observed.

Quiz Masters: 1. Mr. Nishant Khatoon BSc 1st Med.

2. Ms. Aisha Khatoon BSc. 1st Med.

Team-A

- 1. Ms. Ankita 22ZOO013
- 2. Ms. Payal Dadhwal 22ZOO005

Team-B

- 1. Ms. Sheetal Jaswal 22BOT030
- 2. Ms. Sanjana Kumari 22BOT004

Team-C

- 1. Ms. Shalini 22LCH005
- 2. Ms. Sakshi Parmar 22BOT007

Team-D

- 1. Ms. Mahjabeen Praveen 22ZOO043
- 2. Ms. Ankita Sharma 22LCH009

Result: Team C was winner of the event

13 Conclusion and Recommendations

13.1 Good points observed

- College has various teams like eco-club, NSS, NCC and Rovers and rangers which works to maintain biodiversity on the campus and also participates in preventing pollution in society through various drives.
- > College has solar panel installed on the administration block and LED lights.
- College has green area in majority.
- > Two neat & clean parking zones for students and teachers are available in the campus.
- College is encouraging natural ventilation and illumination by alteration in the building structures for new constructions.
- College is working on the Rain water harvesting and vermicompost pit in the new construction.

13.2 Recommendations

Auditing environmental sustainability practices through a "Green Audit" is the most effective method for determining where improvements may be made. While the college performs a decent job overall, there are several areas where it can make strides towards being a more sustainable college by implementing the suggestions made in this study.

- In order to pique the interest of the students, you should call all of the trees and plants by both their common name and their scientific name.
- Creation of a nursery for medicinal plants on a college campus. And expand the herbal garden with new plants.
- A water recycling system should be installed so that the college can use the recycled water for irrigation and other uses.
- > A variety of photos and phrases should be displayed in order to safeguard the environment.
- Rain Water Harvesting as per the guidelines of Central Ground Water Board shall be done.
- > Vermicomposting facility can be installed in the campus.
- ▶ Liquid waste and e-waste management system needs to be adopted.



GPS Map Camera Una, Himachal Pradesh, India F77J+F9F, Professor Colony, Una, Himachal Pradesh 174303, India Lat 31.463815° Long 76.28134° 10/05/23 04:33 PM GMT +05:30

Google

Green Audit Committee

Dr. Shveta Sharma Ruly Dr. Sanjay Sharma Assit. Prof. Promila Devi Dr. Gagandeep Singh Asstt. Prof. Richa Sharma Asstt. Prof., Vikas Kumar

IQAC Convenor

Principal

14.5

The facts tubmitted in the reports are verified by the US on 10/05/2023 during the visit of Govt. Degree college Una. There is absolute greenary in the campus. All the available space are fully campus. All the available space are fully whilzed as per the potential and species whilzed as per the requirement. 10/05/2022

euchil kumar, IFJ Deputy Concernator of fore Division Una (H.P.)

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Beyond the campus environmental promotional activities

An awareness Rally on Cleanliness and Environment

9th January, 2023

The NSS volunteers organize an awareness Rally on Cleanliness and Environment Conservation on 9th January, 2023 which started from college campus to Una bus stand.





जना/अन्थ : नवनींट कालेज जना में एन एस एस. सिहिर के दौरान पर्यावरण संरक्षण पर आयोजित जागरूकता रैली के दौरान प्रवर्ष थे. सब्देव भारहाज के साथ स्वयंतेरी व (दाएं) दकोती स्कूल में वर्यावरण को लेकर आयोजित वालसकता रेली के दीरान प्रधानावर्य स्वर्ग सिंह के साथ एम सी सी कैवेटस। State and

प्रण.स. सम्बद्धा। ऊन्स, २ जनवरी (सुनेद) - राजवधेम यार्वीवारण्ड कर्म में स्वरंत पर एस एस. हिविर के टीतन सोन्सवा को अपूर्विटक स्वास्थ केंद्र सर्वत में अपूर्विटिक स्वास्थ केंद्र सर्वत में अपूर्विटक स्वास्थ केंद्र सर्वत में उन्दर्शन केंद्र स्वा स्वास्थ कर्म केंद्र प्रकार में स्वास्थ से अपूर्वत केंद्र प्रस्त केंद्र स्वास्थ से प्रयंतरण के प्रदेश कारक किया। स्वास्थ केंद्र स्वास्थ केंद्र स्वास्थ से प्रयंतरण के प्रदेश कारक किया। र्दनिक कोधन में आयुर्वेद के उपयोग के बारे में वालकारी दी (उन्होंने स्वयमेंवियों एन.सी.सी. कैडेटस ने

निकाली जागरूकता रैली

भारे में जानकारी ही। इन्हरान स्वरणाव्या को बताया कि किस तरह आनुष्टेंद हमले दिन प्रतिदित के बधावें में स्वरण जीवन में चुधार ताठ है तथा किस प्रवल किन में चुधार ता पसने हैं। इसके अत्तवाक्रिशिय में दन दस एस. इसके अत्तवाक्रिशिय में दन दस एस. पन अगेगत क कथा क हनगर कोने मैं मुखर लात है तथा किस प्रकार हम से देश के देश के कैंदेरी ने बहुते प्रयोस का द्वापा के के प्रति के देश के कैंदेरी ने बहुते प्रयोस का देश के स्वाय तथा के कैंदर ने के देशन के कैंदेरी ने बहुते प्रयोस का देश प्रकार यहां के के देशन के कैंदर ने के देशन के कैंदरी ने बहुते प्रयोस का देश प्रवास का कि से मुखर ला सकते हैं। प्रति अगतवात्रिविर में ररा रस. एम के समनवयक या गर्वेद कुमार तथा का . ने हरी इन्हेरे दिखाकर रखन किया हिन्ह के समनवयक या गर्वेद कुमार तथा का. ने हरी इन्हेरे दिखाकर रखना कि दा प्रयास की स्वाय के कुट बॉल्वेसना प्रति हो को क्या कि का अभियान की लोग को प्रकार की का देखा कर की किया के क्या कि प्रयास की त्या प्रकार की प्रकार की का जिसका के का का अभियान की स्वाय कि प्रवास कर किया में कि के कुट बॉलवेसना प्रति सोरो को का क्या की स्वाय के का कि दा प्रदास की का जिसका की प्रा का अभियान की स्वाय के कुमा है की की की प्रथान की रित्ती की प्रथान की स्वाय कि दा प्रदास की के कुट बॉलवेसना प्रति सोरो की का का कि प्रा का अभियान की का कर का का की रही के कि देखा कि की का का कि दान का का ।

A second 525 बंगाणाः धनिकलां स्कूल में एक युद्ध नहें के विरुद्ध जागरूकला रैली निकालने के दौरान प्रिंमियत संजीव प्रराहार के राज्य विद्यार्थी सामुद्दिक वित्र में। (m



युद्ध नशे के विरुद्ध जागरूकता रैली निकाली

बंगाण, २ वनवरी (राष्ट्र): वासकारां सीमिक सैकेंडरी स्कूल में सोमकार को एक पुद्ध नहीं के विरुद्ध विषय पर विद्यार्थियों ने वारत्यकरां तिर्गे रिकारी। इस कार्यक्रम में सेवानिपृश

तनावार्व योगराज भारद्वाज मुख्यालिथि के तौर पर जिलकत की।

इस अवसर पर कलब को इंग्रार्थ जीलम: ने विद्यार्थियों को एक युद्ध नजे के विरुद्ध विषय पर जगस्यक किया।

कार्यक्रम में संकृत में प्रहरी क्लब का गठन किया गया। इस चौके सा प्रश्वनाचार्य संजीव परागर बलविदर शर्मा, अधिनी कुमार प्रवेश राष्ट्रा, अभित कुमार, इंसराज, बलदेव सिंह व अन्य उपस्थित रहे।



