



# **GREEN AUDIT REPORT**



**Session 2021-22**

**AMBAH POSTGRADUATE AUTONOMOUS COLLEGE,  
AMBAH (MORENA), M.P., INDIA**

**PIN-476111**

**REPORT PREPARED BY-**

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Co-Ordinator

Green Audit Team

**CONDUCTED BY GREEN AUDIT TEAM AND INTERNAL QUALITY ASSURANCE CELL**

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## ACKNOWLEDGEMENT



IQAC and Green Audit Assessment Team thanks to the Principal Dr. Shivraj Singh Tomar & Management of Ambah P. G. Autonomous College, Ambah(Morena) M.P. for assigning the task of Green Audit of this college to us. We appreciate the cooperation that we got from all the staff and Green audit team members.

I am specially grateful to Prof. V. Medhekar who gave full cooperation from beginning to end.

**Date: 31 March, 2022**

A handwritten signature in blue ink, likely belonging to Dr. Dinesh Rawat, the Co-Ordinator of the Green Audit Team.

**Dr. Dinesh Rawat**  
**Co-Ordinator,**  
**Green Audit Team**  
**Ambah P. G. Auto. College,**  
**Ambah(morena),M.P.**

### **DISCLAIMER**

Green Audit Team has prepared this report on the basis of primary data collected from the different areas of the college. All reasonable care has been taken in its preparation; details contained in this report have been compiled in good faith based on information gathered.

The college map has been properly prepared for the first time through personal survey by me, which has been used for the first time in this report.



**Date: 31 March, 2022**

**Dr. Dinesh Rawat**  
**Coordinator,**  
**Green Audit Team**  
**Ambah P. G. Auto. College,**  
**Ambah(morena),M.P.**

## **GREEN AUDIT**

The intention of organizing Green Audit is to upgrade the environment condition in and around the institutes, colleges, companies and other organizations. It is carried out with the aid of performing tasks like waste management, energy saving and others to turn into a better environmental friendly institute.

### **GOALS OF GREEN AUDIT**

- The objective of carrying out Green Audit is securing the environment and cut down the threats posed to human health.
- To make sure that rules and regulations are taken care of.
- To avoid the interruptions in environment that are more difficult to handle and their correction requires high cost.
- To suggest the best protocols for adding to sustainable development.
- To assess the actual status of the bio diversity of the college campus and submit suggestions for qualitative improvement

### **BENEFITS OF GREEN AUDIT**

- Would help to prepare plan to protect the environment.
- Recognize the cost saving methods through waste minimization and management.
- Point out the prevailing and forthcoming impacts on environment.
- Ensures conformity with the applicable laws.
- Empower the organizations to frame a better environmental performance.
- 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.



[illegible]

## 1.BRIEF ABOUT COLLEGE-

1. Name of the Institution: Ambah P G Autonomous College, Ambah
2. No. of Department: UG-10, PG: 07
  - (a) Under graduate courses- B.A.-Geography, Economics, English, Hindi, Sanskrit, Political Science, History, Sociology  
B.Sc.-Chemistry, Botany, physics, Math, Zoology, Comp. Science ,Micro biology  
B.Com.-Accounting group, Management group &Applied Economics group
  - (b)Post Graduate Courses- M.A.-Geography, Economics & Hindi  
M.Sc.- Chemistry, Zoology & Mathematics
  - ( c) PG Diploma Course- P.G.D.C.A.
  - (d) Certificate Course- Analytical Chemistry
3. No. of Students: Intake UG-1127, PG-227, Total: 1354
4. No. of Teaching staff Members:-39
5. No. of Non-Teaching Members: 31
6. Total campus area: 2.729 Acre
7. College building Spread Area: 1.152 Acre
8. Campus Land uses-

Constructed Land	- 42.24%
Open Land	- 41.98%
Lawn & Planted Land	- 16.78%

  - (a) Girls common room: 01
  - ( b) Garbage collection bins: 30
  - (c) Labs: 13
  - (d) Main Library – 01
  - (e) PG library - 07
  - (f) Audio Visual hall – 01 (Capacity 100 sitting)
  - (g) Auditorium hall – 01 (Capacity 1500 sitting)
  - ( h) Class rooms: 30
  - (i)Language Lab- 01



The latest Google Map image certifying the greenery displayed in the college campus in this report



## **2. ENVIRONMENTAL POLICY OF THE COLLEGE**

Ambah Post Graduate Autonomous College, Ambah (M.P.) always believes in maintaining its own standard in terms of environment and quality consciousness. It has taken several initiatives to protect its own environment with a pollution free campus. Being an environmental conscious college, the administration and the students of the college take care of the environment carefully. Every year, during the rainy season tree plantation is done and carefully taken care of. It is the responsibility of the ACA to preserve the work done on the campus related to the environment

the teaching and Non-teaching staff of the College are committed to undertake various activities for environmental sustainable development -

- i. To sensitize the students/staff and local people regarding the proper use of water.
- ii. To collect and use the Rain Water in the premises.
- iii. To use the solid waste through vermicomposting in the campus and use it as a fertilizer.
- iv. To reduce the noise pollution in the campus.
- v. To maintain green campus and clean campus.

### 3. MEMBERS OF GREEN AUDIT TEAM

Sl. No.	Name of Auditor	Designation
1	Dr. Dinesh Rawat	Chairman
2	Dr. R.A.S. Chauhan	Member
3	Dr. Diwakar Shrotriya	Member
4	Mr. Mukesh Shrivastava	Member
5	Dr. B.M.Bansal	Member
6	Mr. D.K.Sharma	Member



Left to right-Mr.Mukesh Shrivastava (Chemistry), Dr.R.A.S.Chauhan (Botany),Dr. Dinesh Rawat (Chairman GAT), Dr.B.M.Bansal (Commerce), Mr. D. K. Sharma (Zoology) & Dr. Diwakar Shrotriya (Physics)

## **4. EXECUTIVE SUMMARY**

Ambah Post Graduate Autonomous College, Ambah (M.P.), a premier Educational Institution of Northern Madhya Pradesh, made its formal beginning with 09 students, 7 teachers and a Principal on 9th March 1959. The college then housed in a small building provided by the Shiksha Samiti Paragana Ambah.

The college reached new heights in the academic forefront with the opening of P.G. classes in Geography, Economics & Hindi in the year 1962, Chemistry in the year 1969 and Zoology in the year 2004. Mathematics in the year 2010, besides this college is also running a post graduate diploma in computer application since 2002. To commensurate with this vertical academic growth the college was accorded Autonomous status in 1988-89 and was accredited by NAAC with B Grade in 2009.

Now the college holds its head high as one of the front ranking institutions of Madhya Pradesh offering P.G. course in 7 subjects and Research centers in Geography, Economics & Chemistry. In its long journey of 62 years the college has left indelible marks on the stand of time by producing brilliant luminaries in different fields like science, technology, sports, social service, administration, politics & Industry etc.

## **5. VISION**

To promote quality in all aspects of education for academic excellence in the college. For this to develop a conducive environment for all and to provide necessary resources. To maintain a distinct identity in the local university/region with a clear image. Updating by adopting oriented learning, creativity, innovation social consciousness for sustainable livelihoods.

## **6. MISSION**

→ To inclination towards learning by adopting to Latest Teaching Methods for Enhanced Learning & Creativity.

→ To Value and by Introducing & Integrating Skill in the Knowledge Content for gaining Competitive Edge with the view to be Self-Reliant.

- To provide an Equal Platform for Higher Education, Employment& Entrepreneurship for all. To promote and support Research Oriented Activities.
- To train students to be creative and competitive to face real World Challenges of the new millennium.
- To develop a sense spirit-de-corps through Co-curricular, Extra-Curricular and Outreach Activities.
- To promote activities to enhance societal consciousness/ community development, well-being & harmony.

## **7. METHODOLOGY**

For conducting green audit, various methods have been adopted in the methodology such as physical inspection, observation and review of documentation, survey for mapping the premises. Study covered from data collection and analysis, measurement etc.to summarize the current status of environmental management in the campus- water management, raw water, drinking water, laboratory waste water, drain water, rain drain water, energy conservation, diesel, gas, electric, battery areas like waste management etc. have been studied.

## **8. GOOD POINTS OBSERVED**

1. College has prepared Green Environmental policy and has taken efforts for sustainable development with in and nearby the college premises.
2. College has formed the team of faculty which works to maintain biodiversity in the campus and also participates in preventing pollution in society through various drives.
3. College has installed a solar panels of 5 KW capacity .
4. College has included environment protection and management as a subject in curriculum.
5. College has conducted Environment Awareness program for faculty and students.
6. College has Vermicomposting facility installed
- 7-College has the 'Rain Water Harvesting' facility installed.





ROOFTOP SOLAR PV SYSTEM



Rain Water Harvesting



Rain Water Harvesting



Vermicomposting Pit

## **9. MAJOR RECOMMENDATIONS**

1. College should install more solar panel as early as possible.
2. Monitoring of energy and water consumption.
3. PUC certificate for all the vehicles entering the campus to be made mandatory and to be checked by security.
4. More Bio-waste composting system to be adopted.
5. More E-waste management system needs to be adopted.

## **10. OBJECTIVES OF THE STUDY**

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

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

## **11. FOCUS AREA OF STUDY**

- Water management
- Air Pollution Management
- Noise Pollution Management
- Energy use & conservation
- Green Belt area & Bio-diversity

## **(a) WATER MANAGEMENT**

Water is a valuable natural resource for all living organisms. It is freely available depending on the climate and topographic features of a region. Although water is natural freely available but portable (drinkable) water is not available freely for human consumption. In our planet 70% area is covered by water but only 3% of it is fresh water. Around 1.1 billion people of the world face water crisis. Water pollution and wastage plays a vital role in water crisis. Water contaminations are taking place at an alarming rate. Drinking or using contaminated water leads to many diseases or death. That is why it is important to ensure that drinking water is safe, clean and free from bacteria and disease. It is also important to conserve protect and manage the water resources availability and usage so that it is sustainably used.

Our college examine the quality and usage of water in the college campus. Water auditing is conducted for the evaluation of facilities of raw water intake.

### **SOURCE OF WATER**

SL. No.	Resource	Quantity
1	No. of Bore-well	01
2	No. of municipality supply	02
3	Water reserve tank	08

### **WATER USERS IN CAMPUS**

Sl No.	Person in different section	Strength (No. of person )
1	Staff	70
2	Residential Family Members	07
3	Visitors	Approx. 1000 – 3000

The visitors of the college vary with respect to different activities conducted in the campus. During admission and different activities and programs conducted by the district administration in the college campus. The total number of visitors of the college increases up to 3000 on such day. There are good numbers of visitor inflow to the college for MPBOU and MCU inquiry and study purpose.

### QUANTITY OF WATER USED IN DIFFERENT SECTIONS OF THE CAMPUS

Sl. No.	Sections	Water Use (Litter/day)
1	Office building	100
2	Urinals and Toilets	500
3	Departments	680
4	Laboratories	400
5	Garden	1000
6	Drinking	1400
7	Residential Quarters	300
8	Leakage	20

#### महाविद्यालय में जल प्रबंधन एवं विशलेषण

स्त्रोत- 01 बोरबेल

2 नगरपालिका सप्लाई

बोरबेल का व्यास	- 8 इंच
बोरबेल की गहराई	- 350 फीट
प्रतिमिनट जल की निकासी	- 200 लीटर
बोरबेल का औसत संचालन प्रतिदिन	- 22 मिनट
प्रतिदिन जल की खपत	- 4400 लीटर
प्रति हफ्ते जल की खपत	- 30800 लीटर
नगर पालिक नल से जल की निकासी	- 10 लीटर प्रति मिनट
नल से प्रतिदिन जल की खपत	- $60 \times 10 = 600$ लीटर
नल से प्रति हफ्ते जल की खपत	- $600 \times 7 = 4200$ लीटर
महाविद्यालय में प्रति हफ्ते जल की खपत	- $30800 + 4200 = 35000$ लीटर
प्रतिमाह जल की खपत	- 156800 लीटर
महाविद्यालय के जल स्त्रोतों में	
Average Alkalinity	= 424 Mg/L
PH	= 7.1-7.3
Average TDS	= 350 Mg/L

*मुकुंद बिजौरा*  
(रसायन विभाग)



## **WATER USAGES AND CONSERVATION PLAN**

1. At present waste water is not recycled or reused in any form in the college premises.
2. Drip irrigation and sprinklers are suggested for watering the garden. The garden is also watered with water pipe, two times a day for 02 hours each time.
3. College does not have any vehicle and hence there is no water usage for vehicle maintenance.
4. The rain water is mostly drained and released to Nallha outside the boundary of the college at low terrain.

## **RECOMMENDATIONS**

College administration may consider theses on top priority:-

1. To establish and implement the Water Conservation and Management Plan as per Environment Protection Act 1986.
2. The water Conservation Awareness Program to be conducted on World Water Day on 22nd March every year.
3. Display boards for switching off the taps to be put on at appropriate place.
4. To eliminate the spillage and over usage of water in washbasins, urinals and toilet push taps are highly recommended.
5. Automatic Leak detection systems for conservation of water.
6. 80 % of total quantum of ground water extracted shall be recharged to ground either by Artificial Recharge Structures within the college premises.

## **(b) AIR POLLUTION MANAGEMENT**

The College has been continuously conducting awareness programs for staff, students and society for protecting and maintaining environment. The awareness is also done by arranging programs, rallies on various issues related to environment and health. The college students and faculty members are involved in the activities through NSS/NCC/Red Cross.

Every day there are 150 Two wheelers and 10 four wheelers are coming in college premises but there is no system observed to check for PUC certificate, Vehicle Exhaust Gas Analysis and Vehicular movement noise and vibration pollution. The air pollution at the time of ignition off and on is more than it is in riding mode.

## **RECOMMENDATIONS**

The College may consider these on top priority:-

1. World Environment Day to be celebrated in college premises every year on 5th June and whole college students and staff shall get involved and take OATH for ENVIRONMENT CONSERVATION not only in college but also in every span of life.
3. Exhaust gases in the labs shall be monitored, analyzed and check regularly
4. Parking zone of college shall be neat & clean.
5. Use of bicycle in campus to be promoted.

## **( c) NOISE POLLUTION MANAGEMENT**

### **(A) SILENCE ZONES IN THE COLLEGE**

Various display boards have been placed in the library and other places for awareness to maintain silence in the college.

### **(B) NOISE CONTROL IN THE COLLEGE**

The college adopts no honking policy and prevents use of any honk and noise in campus. Certain areas like library, class room are declared as Silence zone and noise pollution is kept to minimum on college campus.

#### (C) DG SET FOR POWER BACK-UP

The college has 2 DG set with silencer as power backup and used whenever there is power cut-off due to load shading or maintenance of electricity in college campus.

### RECOMMENDATIONS

The College administration may consider on top priority

1. Noise Level Monitoring shall be done as per the guideline of "Noise Pollution (Regulation and Control) Rules 2000
2. Vehicular exhausts shall be examined regularly in the college as per Central Motor Vehicle Act 1988
3. Vehicular movement shall be restricted by putting boundary limit and beyond that limit bicycles usage shall be promoted to all students and staff

### ENERGY USE AND CONSERVATION

S. No.	Name of Equipment	Number of Equipment	Load (WATTS)
1	FAN	240	26400
2	COOLER KIT	5	550
3	COOLER EXHAUST	4	1500
4	REFRIGERATOR	8	6240
5	COMPUTER	80	20000
6	LEPTOP	20	1000
7	PRINTER	16	5600
8	PROJECTOR	7	2800
9	LED BULB 9 W.	122	1098
10	ORDINARY BULB 100W	20	2000
11	TUBE LIGHT 40 W	31	1240
12	HALOGEN LIGHT	10	1000
13	WATER WELL PUMP 15HP,3P	1	5000
14	WATER PUMP 0.5HP,1P	3	2700
15	TELVISION	8	400
16	WATER COOLER	2	1500
17	AIR CONDITIONER WINDOW	4	6996
18	AIR CONDITIONER SPLIT	3	5100
19			
20			
21			91184
22			
23			
24			

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

### RECOMMENDATIONS

The College administration may consider on top priority

1. Energy Consumption for each building should be estimated to design the energy conservation plan.
2. Instead of out-sourcing the Annual Maintenance of Electrical Equipment college concern department staff shall take that responsibility
3. Energy saving awareness shall be done by displaying the boards at appropriate place
4. Encourage natural ventilation and illumination by alteration in the building structures whenever going for new constructions



### ( d) GREEN BELT AREA & BIO-DIVERSITY

#### Plant Diversity









A survey was carried out to find plant diversity in the college campus of Ambah P G Autonomous College, Ambah. The survey was focused on the diversity of plants on the basis of their classification and economic importance.

Table- Plants found in College Campus

#### Trees

S.No.	Botanical Name	Common Name	Name of family	No.of plants	
01	<u>Delonixregia</u>	गुलमोहर	Fabaceae	06	
02	<u>Moringaolifera</u>	सहजन	Moringaceae	02	



03	<u>Pithecellobium dulce</u>	जंगल जलेबी	Fabaceae	02	
04	<u>Bauhinia galpinii</u>	कचनार	Fabaceae	22	
05	<u>Pongamia pinnata</u>	करंज	Fabaceae	08	
06	<u>Terminalia bellirica</u>	बहेड़ा	Combretaceae	05	
07	<u>Terminalia arjuna</u>	अर्जुन	Combretaceae	04	
08	<u>Putranjiva roxburghii</u>	पुत्रन्जीवा(lucky bean tree, child life tree)	Putranjivaceae (Euphorbiaceae)	02	
09	<u>Ficus benghalensis</u>	बरगद	Moraceae	02	
10	<u>Ficus religiosa</u>	पीपल	Moraceae	02	





11	<u>Azadirachta indica</u>	नीम	Meliaceae	12	
12	<u>Eucalyptus grandis</u>	सफेदा	Myrtaceae	03	
13	<u>Dalbergia sissoo</u>	शीशम	Fabaceae	08	
14	<u>Mangifera indica</u>	आम	Anacardiaceae	05	
15	<u>Polyalthia rosea</u>	अशोक	Annonaceae	56	
16	<u>Alstonia scholaris</u>	सप्तपर्णी	Apocynaceae	13	
17	<u>Morus alba</u>	शहतूत	Moraceae	01	

18	<u>Psidium guajava</u>	अमरुद	Myrtaceae	02	
19	<u>Murrayakoenigii</u>	मीठा नीम	Rutaceae	04	
20	<u>Emblica officinalis</u> Syn. <u>Phyllanthusemblica</u>	आंवला	Euphorbiaceae	02	
21	<u>Aegle marmelos</u>	बेलपत्र	Rutaceae	01	
22	<u>Pterospermumacerif oium</u>	कनकचम्पा	Sterculiaceae	01	
23	<u>Nyctanthesarbor- tristis</u>	पारिजात(हरशृंगार)	Oleaceae	06	
24	<u>Anthocephaluscada mba</u>	कदम	Rubiaceae	01	
25	<u>Citrus limetta</u>	मौसमी	Rutaceae	01	















26	<u>Punicagranatum</u>	अनार	Punicaceae	02	
27	<u>Syzygiumcumini</u>	जामुन	Myrtaceae	01	
28	<u>Leucadendron argenteum</u>	सिल्वर ट्री	Proteaceae	03	
29	<u>Thespesiapopulnea</u>	पारस पीपल	Malvaceae	02	
30	<u>Mimusopselengi</u>	मौलश्री	Sapotaceae	03	
31	<u>Saribusrotundifolius</u>	Fan Palm	Arecaceae	20	
32	<u>Cycasrevoluta</u>	Cycas (sago palm)	Cycadaceae	03	
33	<u>Cycascircinalis</u>	Cycas	Cycadaceae	10	





















34	<u>Acacia melanoxylon</u>	Australian babul	Fabaceae	02	
35	<u>Beaucarnearecurvata</u>	Bottleneck palm	Asparagaceae	02	
36	<u>Tamarix species</u>	Jhau	Tamaricaceae	03	
37	<u>Prosopis cineraria</u>	Shami	Fabaceae	01	

## Herbs-


S.N o.	Botanical Name	Common Name	Name of family	
01	<u>Tylophora indica</u>	दमबेल	Asclepiadaceae	
02	<u>Catharanthus roseus</u>	सदाबहार	Apocynaceae	
03	<u>Bryophyllumpinnatum</u>	पत्थर चट्टा	Crassulaceae	

04	<u>Trachyspermum</u> <u>ami</u>	अजवाइन	Apiaceae	
05	<u>Aloe</u> <u>barbadensis</u> miller	Aloe vera	Asphodelaceae	
06	<u>Euphorbia</u> milii	Crown of thorns	Euphorbiaceae	
07	<u>Tinospora</u> cordifolia	गिलोय (climber)	Menispermaceae	
08	<u>Zamia</u> pumila	Zamia	Zamiaceae	
09	<u>Mentha</u> piperita	पुदीना	Lamiaceae	
10	<u>Mirabilis</u> jalapa	गुलाबबांस	Nyctaginaceae	
11	<u>Adhatoda</u> vasica	वासरा	Acanthaceae	
12	<u>Asparagus</u> officinalis	सतावर Asparagus (Climber Herb)	Asparagaceae	

13	<u>Acanthocereus tetragonus</u>	Triangle Cactus	Cactaceae	
14	<u>Euphorbia polygona</u>	Cactus	Cactaceae	
15	<u>Mammillaria albiana</u>	Cactus	Cactaceae	
16	<u>Artemisia argyi</u>	Silvery wormwood	Asteraceae	
17	<u>Portulacaria afra</u>	Dwarf jade plant	Didiereaceae	
18	<u>Campsis grandiflora</u>	Trumpet vine (climber)	Bignoniaceae	
19	<u>Plectranthus scutellarioides</u>	Coleus	Lamiaceae	
20	<u>Ixora coccinea</u>	Jungle flame (climber)	Rubiaceae	
21	<u>Calotropis procera</u>	मुरगेश	Apocynaceae	

22	<u>Araucaria columnaris</u>	क्रीसमस ट्री	Araucariaceae	
23	<u>Ocimum sanctum</u>	तुलसी	Lamiaceae	
24	<u>Mimosapudica</u>	लाजवंती ,छुईमुई	Mimosoidceae	
25	<u>Passiflora incarnata</u>	राखीबेल	Passifloraceae	
26	<u>Calotropis gigantea</u>	White aak	Apocynaceae	
27	<u>Alocasia macrorrhizos</u>	Hoomu( elephant ear ,Giant Taro)	Araceae	
28		Dahlia	Asteraceae	
29	<u>Combretum indicum</u>	Rangoon creeper, Madhumalti (climber)	Combretaceae	
30	<u>Dryopteris</u>	Wood Fern	Dryopteridaceae	






31	<u>Hydrilla verticillata</u>	Hydrilla	Hydrocharitaceae	
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## Shrubs

S.No.	Botanical Name	Common Name	Name of family	
01	<u>Codiaeum variegatum</u>	Croton	Euphorbiaceae	
02	<u>Thuja occidentalis</u>	Thuja (morpankh)	Cupressaceae	
03	<u>Rosa indica</u>	Rose (गुलाब)	Rosaceae	
04	<u>Cascabelathevetia</u>	कनेर (yellow flower)	Apocynaceae	
05	<u>Clerodendrum</u>	Hedge	Lamiaceae	
06	<u>Dracaena angustifolia</u>	Dracaena	Asparagaceae	
07	<u>Tecoma stans</u>	Yellow elder	Bignoniaceae	
08	<u>Citrus limetta</u>	मौसमी	Rutaceae	









09	<u>Citrus limon</u>	नीबू	“	
10	<u>Hibiscus rosa sinensis</u>	गुड़हल	Hibiscaceae	
11	<u>Punica grantum</u>	अनार	Pinicaceae	
12	<u>Chrysanthemum</u>	गुलदाउदी	Asteraceae	
13	<u>Jasminum officinale</u>	Jasmine (चमेली )	oleaceae	
14	<u>Euphorbiagranti</u>	Milk bush	Euphorbiaceae	
15	<u>Polysciasscutellaria</u>	Koppa kola	Araliaceae	
16	<u>Murayapaniculata</u>	कामिनी	Rutaceae	
17	<u>Collistemon</u>	Bottle brush	Myrtaceae	
18	<u>Euphorbia tithymaloides</u>	Pedilanthus	Euphorbiaceae	







19	<u>Jatropha integrifolia</u>	Peregrina	Euphorbiaceae	
20	<u>Jatropha curcas</u>	Biodiesel tree	Euphorbiaceae	

## Medicinal Plants







S.No.	Botanical name	Common name
01	<u>Terminalia arjuna</u>	अर्जुन
02	<u>Pongamia pinnata</u>	करंज
03	<u>Moringa oleifera</u>	सहजन
04	<u>Putranjiva roxburghii</u>	पुत्रन्जीवा (lucky bean tree, child life tree)
05	<u>Ficus benghalensis</u>	बरगद
06	<u>Ficus religiosa</u>	पीपल
07	<u>Azadirachta indica</u>	नीम
08	<u>Eucalyptus grandis</u>	सफेदा
09	<u>Psidium guajava</u>	अमरुद
10	<u>Murrayakoenigii</u>	मीठा नीम
11	<u>Syn. Phyllanthus emblica</u>	आंवला
12	<u>Aegle marmelos</u>	बेलपत्र
13	<u>Pterospermum acerifolium</u>	कनकचम्पा
14	<u>Tinospora cordifolia</u>	गिलोय (climber)
15	<u>Murrayakoenigii</u>	मीठा नीम
16	<u>Tylophora indica</u>	दमबेल
17	<u>Catharanthus roseus</u>	सदाबहार
18	<u>Bryophyllum pinnatum</u>	पत्थर चट्टा
19	<u>Trachyspermum ammi</u>	अजवाइन
20	<u>Mentha piperita</u>	पुदीना
21	<u>Alstonia scholaris</u>	सप्तपर्णी
22	<u>Adhatoda vasica</u>	वासरा
23	<u>Asparagus officinalis</u>	सतावर Asparagus (Climber Herb)
24	<u>Ocimum sanctum</u>	तुलसी
25	<u>Calotropis gigantea</u>	सफेद आक (White aak)

## FAUNA IN THE CAMPUS

SL. NO.  01	WASP	Phylum: Arthropoda Class: Insecta Order: Hymenoptera Genus: Vespula Species: vulgaris	
02	TERMITE	Phylum: Arthropoda Class: Insecta Order: Isoptera Genus: Coptotermes Species: formosanus	
03	CUCKOO-MALE	Phylum: Chordata Class: Aves Order: Cuculiformes Genus: Cuculus Species: canorus	
04	CUCKOO-FEMALE	Phylum: Chordata Class: Aves Order: Cuculiformes Genus: Cuculus Species: canorus	
05	PEACOCK	Phylum: Chordata Class: Aves Order: Galliformes Genus: Pavo Species: cristatus	
06	PARROT	Phylum: Chordata Class: Aves Order: Psittaciformes Genus: Cacatua Species: goffins	







07	Dove bird (Fakhta)	Phylum: Chordata Class: Aves Order: Columbiformes Genus: Streptopelia Species: decaocto	
08	KINGFISHER	Phylum: Chordata Class: Aves Order: Coraciiformes Genus: Alcedo Species: atthis	
09	Tailorbird	Phylum: Chordata Class: Aves Order: Passeriformes Genus: Orthotomus Species: sutorius	
10	Owl	Phylum: Chordata Class: Aves Order: Strigiformes Genus: Tyto Species: alba	
11	Common blackbird	Phylum: Chordata Class: Aves Order: Passeriformes Genus: Turdus Species: merula	
12	Myna	Phylum: Chordata Class: Aves Order: Passeriformes Genus: Acridotheres Species: tristis	



13	Scorpion	Phylum: Arthropoda Class: Arachnida Order: Scorpiones Genus: Hottentotta Species: tamulus	
14	Dragonfly	Phylum: Arthropoda Class: Insecta Order: Odonata Genus: Sympetrum Species: flaveolum	
15	Mosquito	Phylum: Arthropoda Class: Insecta Order: Diptera Genus: Aedes Species: aegypti	
16	Ant	Phylum: Arthropoda Class: Insecta Order: Hymenoptera Genus: Iridomyrmex Species: purpureus	
17	Monkey	Phylum: Chordata Class: Mammalia Order: Primates Genus: Macaca Species: mulata	
18	Chamaeleon	Phylum: Chordata Class: Reptilia Order: Squamata Genus: Chaemaelon Species: vulgaris	



19	Squirrel	Phylum: Chordata Class: Mammalia Order: Rodentia Genus: Funambulus Species: palmarum	
20	Duck	Phylum: Chordata Class: Aves Order: Anseriformes Genus: Anas Species: poecilorhyncha	
21	Honey bee	Phylum: Arthropoda Class: Insecta Order: Hymenoptera Genus: Apis Species: indica	
22	Sparrow	Phylum: Chordata Class: Aves Order: Passeriformes Genus: Passer Species: domesticus	
23	Pigeon	Phylum: Chordata Class: Aves Order: Columbiformes Genus: Columba Species: livia	
24	Crow	Phylum: Chordata Class: Aves Order: Passeriformes Genus: Corvus Species: Splendis	
25	Egrets	Phylum: Chordata Class: Aves Order: Polecaniformes Genus: Ardea Species: modesta	

26	Lizard	Phylum: Chordata Class: Reptilia Order: Squamata Genus: Hemidiiactylus Species: flaviridia	
27	Butterfly	Phylum: Arthropoda Class: Insecta Order: Lepidoptera Genus: Danaus Species: plexipus	
28	Cockroach	Phylum: Arthropoda Class: Insecta Order: Blattodea Genus: Periplaneta Species: americana	
29	Scolopendra	Phylum: Arthropoda Class: Myriapoda Order: Chiloptera Genus: Scolopendra Species: subspinipes	
30	Earthworm	Phylum: Annelida Class: Oligochaeta Order: opisthopora Genus: Eisenia Species: fetida	
31	Bat	Phylum: Chordata Class: Mammalia Order: Chiroptera Genus: Pteropus Species: eidolonhelvum	

The Green Belt Area is meant for conservation of nature and aesthetic value of the college premises. The Green Area in the college includes the plants, greenery and sustainability of the campus to ensure that the buildings conform to green standards. This also helps in ensuring that the Environmental Policy is enacted, enforced and reviewed using various environmental awareness programs.

## **OBSERVATIONS**

Campus is located in the vicinity of approximately 120 types (species) flora (219 trees planted in campus) and 31 types (species) fauna. Various tree plantation programs are being organized during the month of July and August at college campus and surrounding villages through NCC & NSS units. This program helps in encouraging eco-friendly environment which provides pure oxygen within the institute and awareness among villagers. The plantation program includes various types of indigenous species of Trees.

## **RECOMMENDATIONS**

The Management of College may consider on top priority that -

- Total 33% area is to be reserved for plantation.
- The Bio-diversity is to be maintained while considering the plantation in future.
- The selection of trees species to be based on environmental conservation and carbon sequestration value.
- Artificial nests and water ponds are recommended to attract different birds in their migrating and breeding season.
- Watering schedule to be planned according to the season.
- Drip irrigation is strongly recommended to conserve the water.
- Reuse of the water shall be done instead of use of fresh water.
- Special Tree Plantation shall be celebrated every year on environment day and also competitions for bird species identification and knowing the tree values in terms of medicinal and environment conservation.

## OVERALL RECOMMENDATIONS

1. In order to promote tree conservation, All the information sought by the office of the college/various in-charges concerned should be paperless.
2. Wi Fi Internet is very necessary to promote new teaching technology in the college campus.
3. Lab waste water quantity is not measured and drained in a tank.
4. Planning of chemical consumption and purchase to be ensured.
5. Composting of bio degradable waste to be scientifically done.
6. Septic tank sewage water analysis is to be done.
7. Plan for green belt development to be prepared.
8. Drinking water analysis shall be done as per ISO Certification.
9. Rain water Harvesting is to be done technically.
10. Reduction of wood policy.
11. Department wise electrical load consumption is to be done.
12. Awareness for energy and water conservation among students and staff by displaying boards.
13. Automatic leak detections in water flowing pipeline.
14. Water usage reduction techniques to be used. Drip irrigation is strongly recommended.
15. Tree plantation shall be done to maintain biodiversity as well as artificial nesting shall be installed.
16. D. G. set monitoring/Exhaust gas analysis shall be done.
17. Awareness among students and staff about green environment shall be done using tools like display boards etc.



## Planted area in campus































### GREEN AUDIT TEAM WITH PRINCIPAL & SENIORS



Left to right - Dr. B. M. Bansal (member GTA), Dr. V. K. Jain (Co-ordinator IQAC), Dr. Kamal Bharadwaj (In charge NAAC), Prof. V. Medhekar ( Exam. Controller), Dr. Shivraj Singh Tomar (Principal), Dr. R. A. S. Chauhan (member GTA), Dr. Dinesh Rawat (Chairman GAT) , Mr. Mukesh Shrivastava (member GTA), Mr. D. K. Sharma (member GTA) & Dr. Diwakar Shrotriya (member GTA).