Government College Bichhua

District- Chhindwara (M.P.) 480111

Accredited by NAAC "B" Dt. 09/06/2017



GREEN AUDIT REPORT 2022-2023



This report describes the status of environmental management of Government College Bichhua, Chhindwara. The report provides an overall idea about existing conditions, efforts taken to make the area green compliant, increasing awareness amongst stakeholders etc. It helps in understanding the activities carried out by the college team as a responsible educational citizen and provides guidance on further scope for improvement. This report is prepared based on the survey campus and evidence produced during the course of audit.

Green Audit Report

Introduction

Green audit is the procedure of systematically identifying, quantifying, recording, reporting and analyzing are environmental diversity components of any organization. The main objective of carrying out green audit is to check green practices followed by universities and to conduct a well formulated audit report.

Goals of green audit

The institution conducted the green audit in 2022-23 with the following objectives:

- 1. To provide a healthy environment in campus.
- 2. To enhance awareness towards environmental guidelines and responsibilities.
- 3. To identify cost saving methods through minimizing and effectively managing waste.
- 4. The objective of carrying out green audit is securing the environment and cutting down the threats posed to human health.
- 5. To make sure that rules and regulations are taken care of.

- 6. To avoid interruptions in the environment that are more difficult to handle, and their correction require high cost.
- 7. To suggest the best protocols for adding to sustainable development.

Criteria of Green Audit

- 1. Applicable guidelines of NAAC
- 2. Applicable Environmental Legislation
- 3. Best environmental practices

Audit Methodology

The scope of the audit was divided into various environmental areas like land use, water, effluent, sewage, energy etc. Each such area was analyzed based on the evidence produced by the institute. The evidence was collected in the form of discussions/interactions, documents and records, practical site condition and photographs of it.

Benefits of the Green Audit

- Would help to prepare plans to protect the environment.
- Recognize the cost saving methods through waste minimization and management.
- Point out the prevailing and fourth coming impacts on environment.
- Ensures conformity with the applicable laws.
- Empower the organizations to frame a better environment performance.
- It portrays a good image of an institution which helps to build better relationships with the group of interested parties.
- Promotes alertness for environmental guidelines and duties.

ENVIRONMENTAL POLICY OF THE COLLEGE

Government College Bichhua is located in green fields of village and block Bichhua in Chhindwara district of Madhya Pradesh, which was established in the year 1989, with the main objective of establishing, aiding and maintaining and general educational institutions friendly model of administration. Total 33 % area is to be reserved for plantation. Government College Bichhua, management believes the saving mother earth is an integral part of education and an environment friendly model of administration.

World environment day to be celebrated in college premises every year on 5th June and everyone gets involved and take oath for environment conservation not only in college but also in every span of life.

BRIEF ABOUT COLLEGE

- 1. Name of the Institution: Government College Bichhua
- 2. Coordinates: 22 ° 18 ' 16"N 79°09'07"E
- 3. Department: UG-10, PG: 08,
- 4. Students: Intake UG & PG Total: 2439
- 5. Teaching Members : 46 (Permanent & Guest Faculty)
- 6. Non-Teaching Members: 08
- 7. Total campus area: Approx. 1.79 hectare
- 8. College building Spread Area: Approx. 0.89 hectare
- 9. Girls common room: 01
- 10. Garbage collection bins: 10
- 11. Labs: 04

12. Classrooms:17

13. Library: 01

14. Seminar Hall: 01

GOOD POINTS OBSERVED

1. The college has prepared Green Environmental policy and has taken efforts for sustainable development on the college campus.

- 2. The college has formed a team of faculty and students which works to maintain biodiversity on the campus and participates in preventing pollution in society through various drives.
- 3. The college has a solar panel.
- 4. The college has a plan to include environmental protection and management as a subject in the curriculum.
- 5. College has Vermi composting facility installed.
- 6. The parking zone of the college shall be neat and clean.

MAJOR RECOMMENDATIONS

- 1. More number of Energy and flow meters to be installed for monitoring of energy and water consumption building wise/department wise.
- 2. PUC certificate for all the vehicles entering the campus to be made mandatory and to be checked by security.
- 3. College should maintain the legal register for the applicable environment related regulations and comply with this as per the requirement.
- 4. E-waste management system needs to be adopted.

SOLAR PANELS:





WATER HARVESTING TANK:

Globally our water resources are depleting each year additionally we cannot generate artificial water and must depend on water sources available on our planet earth. In this context, to reduce dependency of water from tube-well and also to recharge underground water resources. The college adopted one of the simplest and best measures for conserving water. The College had created a water harvesting tank in the back side of the campus. It is a simple strategy by which rainfall is stored for future usage.



WATER HARVESTING SYSTEM





WASTE MANAGEMENT SYSTEM

Waste tyres are used to make sitting chairs kept in front of the office and in the library of college.

ENVIRONMENTAL POLICY

Both the teaching and non-teaching staff of Government College, Bichhua are committed to carrying out its activity for sustainable development. We will achieve this through the following:

- 1. To sensitize the students and staff regarding the use of water properly.
- 2. To bring in use the 'Rainwater Harvesting' on the campus.
- 3. To maximize the use of ICT and minimize the use of paper. It will help to go towards 'Paperless Office'.
- 4. To use the solid waste through vermi-compost on the campus and use it as a fertilizer.
- 5. To reduce the sound pollution in the campus.
- 6. To protect and Flora and Fauna of the campus.
- 7. To maintain green campus.

Plantation By Students & Teaching Staff











महाविद्यालय में मनाया गया वानिकी दिवस

आयोजन प्राचार्य डॉ आर पी यादव के मार्गदर्शन में संपन्न हुआ

नव भारत न्यूज बिछुआ, 23 मार्च. पर्यावरण शिक्षण कार्यक्रम इको क्लब एवं राष्ट्रीय सेवा योजना के संयुक्त तत्वाधान में शासकीय महाविद्यालय बिछुआ में विश्व वानिकी दिवस का आयोजन प्राचार्य डॉ आर पी यादव के मार्गदर्शन में संपन्न हुआ।

इको क्लब प्रभारी एवं राष्ट्रीय सेवा योजना कार्यक्रम अधिकारी डॉ नवीन कुमार चौरसिया ने विद्यार्थियों को 21 मार्च को अंतरराष्ट्रीय वानकी दिवस के रूप



में मनाया जाता है इसका उद्देश्य पर्यावरण में पेड़ों के महत्व और वनों के पारिस्थितिक महत्व के बारे में विस्तार से बताया विद्यार्थियों में जागरूकता लाने के लिए जंगल पृथ्वी पर जीवन के लिए महत्वपूर्ण होते हैं और सबसे आवश्यक ऑक्सीजन के उत्पादन के अलावा लिए भी जरूरी है जिनके कारण पृथ्वी पर जीवन संभव होता है इस अवसर पर महाविद्यालय के सहायक प्राध्यापक सूर्यकांत शुक्ला ने जानकारी में बताया कि वानिकी दिवस की थीम फॉरेस्ट एंड इनोवेशन रखी गई है अर्थात वन एवं नवीनीकरण। साथी प्राणी शास्त्र विभाग से शिवानी सोनी ने अपने उद्योधन में

विद्यार्थियों को पेड़ पौधों को संरक्षित करने के लिए आह्वान किया।

छात्र सपना विंझाड़े ने भी विश्व वानिकी दिवस पर अपने विचार व्यक्त किये। इस कार्यक्रम को सफल बनाने में महाविद्यालय के इको क्लब एवं एनएसएस के विद्यार्थियों का

Cleanliness drive by College Students and Staff Members











एनसीसी कैडेट्स ने चलाया स्वच्छता अभियान



बिछुआ18जुलाई(जनपक्ष)। शासकीय महाविद्यालय बिछुआ में स्वच्छ भारत अभियान के तहत 24 एमपी एनसीसी बटालियन छिंदवाड़ा सीओ पीजे प्रभाकरण के निर्देशन व महाविद्यालय के प्राचार्य डॉ आर पी यादव के कुशल मार्गदर्शन में महाविद्यालय कैंपस में साफ सफ्सई की गई। महाविद्यालय कैंपस में साफ सफ्सई की गई। महाविद्यालय में स्वच्छ वातावरण बनाने के उद्देश्य से जन जागरूकता अभियान का आयोजन किया गया। महाविद्यालय एनसीसी कार्यक्रम अधिकारी लेफ्टनेंट रघुवीर उईके ने जानकारी देते हुए बताया कि एनसीसी कैंडेटों द्वारा महाविद्यालय प्रांगण में साफ सफ्सई की गई तथा स्वच्छता का संकल्प लिया इस अभियान में एनसीसी कैंडेटों में एस यू ओ ऑकित गिरहारे, अविनाश, ऑकित धारे, काजल संध्या एक्स कैंडेट जितेन्द्र, दीपक विश्वकर्मा, योगेश साह, सरस्वती धुवें, नन्दनी नागरे का विशेष योगदान रहा। महाविद्यालय प्राचार्य ने एनसीसी कें कैंडेटों के कार्यों की सराहना की।



CONSTITUTION FOR GREEN AUDIT

The Green Audit is carried out as per the environmental policy of the GACR and Green audit checklist. 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:

- 1. Waste Management
- 2. Solid waste management
- 3. E-waste management
- 4. Water conservation and management
- 5. Tree plantations
- 6. Reduce Energy use and conservations.
- 7. Eco-friendly campus
- 8. Green environment and clean campus
- 9. Hazardous waste management

Members of Green Audit Teams

Sl. No	Name of Auditor	Designation
1.	Dr. Naveen Kumar Verma	Asst. Professor
2.	Dr. Esmil Beliya	Asst. Professor
3.	Dr. Vivek Kumar Tiwari	Guest Faculty
4.	Dr. Suresh Prasad Charamkar	Guest Faculty

Plant Diversity

One hundred twenty-eight different plant species were divided into 68 families. Including Tree (38), Shrub (37), Herbs (43), Climbers (9) and one dominant grass recorded during documentation are given in Table-7.1.

Table-7.1: Plant species diversity available at college campus at Government College Bichhua, Chhindwara

S. No.			Family	Habit	No. of Plants	IUCN Status	
1	Achyranthes aspera L.	Apamarg	Amaranthac eae	Н	+++	NE	
2	Alstonia scholaris (L.) R. Br.	Saptparni	Apocynacea e	Т	8	LC	
3	Acalypha wilkesiana Müll.Arg.	Acalypha	Euphorbiace ae	Н	++	NE	
4	Aegle marmelos (L.) Corrêa	bel	Rutaceae	Т	1	NT	
5	Agave americana L.	ketaki	Agavaceae	S	5	LC	
6	Ageratum conyzoides (L.) L.	sahdevi	Asteraceae	Н	+++	LC	
7	Albizia lebbeck (L.) Benth.	Siris	Fabaceae	Т	1	LC	
8	Aloe vera (L.) Burm.f.	gheegwar	Lliaceae	Н	10	NE	
9	Alternanthera sessilis (L.) R.Br. ex DC.	gathua chara	Amaranthac eae	Н	+++	DD	
10	Alysicarpus vaginalis (L.) DC.	alysicarpus	Fabaceae	Н	++	NE	
11	Amaranthus viridis L.	chailai	Amaranthac eae	Н	++	NE	
12	Andrographis paniculata (Burm.f.) Nees	kalmegh	Acanthacea e	Н	+	NE	
13	Annona squamosa L.	sheetaphal	Annonacea e	S	2	LC	
14	Araucaria columnaris (G.Forst.) Hook.	Christmas tree	Araucariace ae	Т	4	LC	
15	Areca catechu L.	Areca palm	arecaceae	S	9	DD	
16	Argemone mexicana L.	pili kateri	Papaverace ae	Н	+++	NE	
17	Artabotrys hexapetalus (L.f.) Bhandari	Hari Champa	Annonaceae T 1		1	NE	
18	Artocarpus heterophyllus Lam.	katahal	katahal Moraceae T 1		1	NE	
19	Asparagus officinalis L.	satavari	Asparagace ae	С	5	LC	
20	Azadirachta indica A.Juss.	neem Meliaceae T 3		3	LC		
21	Bauhinia racemosa Lam.	kachnar Fabaceae T 2		2	NE		
22	Bixa orellana L.	sinduri	Bixaceae	Т	2	LC	
23	Boerhavia diffusa L.	punarnava	Bignoniace ae	Н	++	NE	

24	Bombax ceiba L.	semal	Bombacace ae	Т	2	LC
25	Bryophyllum pinnatum (Lam.) Oken	Bruophyllum	Crassulacea e	Н	10	NE
26	Calotropis gigantea (L.) Dryand.	aak	Asclepiada ceae	S	12	NE
27	Cassia fistula L.	analtas	Fabaceae	T	2	LC
28	Catharanthus roseus (L.) G.Don	sadabahar	Apocynace ae	S	1	NE
29	Celastrus paniculatus Willd.	malkangni	Celastracea e	С	2	NE
30	Cheilocostus speciosus (J.König) C.Specht	keokand	Costaceae	Н	5	LC
31	Chlorophytum comosum (Thunb.) Jacques	spider plant	Asparagace ae	Н	5	NE
32	Chrysanthemum morifolium Ramat.	sewanti	Asteraceae	Н	10	NE
33	Cissampelos pareira L.	padh	Menisperma ceae	С	5	NE
34	Citrus limon (L.) Burm. f.	neebu	Rutaceae	Т	2	LC
35	Cleome viscosa L.	hurhur	Capparacea e	Н	+	NE
36	Clitoria ternatea L.	aparajita	Fabaceae	С	5	NE
37	Cocculus hirsutus (L.) W.Theob.	jaljamani	Menisperma ceae	С	10	NE
38	Codiaeum variegatum (L.) Rumph. ex A.Juss.	croton	Euphorbiac eae	S	10	NE
39	Codiaeum variegatum (L.) Rumph. ex A.Juss.	Garden croton	Euphorbiace ae	S	10	LC
40	Cycas circinalis L.	sago palm	Cycadaceae	S	2	CR
41	Cycas revoluta Thunb.	Chilgoza	Cycadaceae	S	4	LC
42	Cymbopogon martini (Roxb.) W.Watson	Lemon grass	Poaceae	G	50	NE
43	Dalbergia sissoo DC.	shisham	Fabaceae	Т	41	LC
44	Delonix regia (Hook.) Raf.	gulmoher	Fabaceae	Н	5	LC
45	Desmodium triflorum (L.) DC.	tinpatiya	Fabaceae	Н	++	LC
46	Diplocyclos palmatus (L.) C.Jeffrey	shivlingi	Cucurbitace ae	С	5	NE
47	Dodonaea viscosa Jacq.	gulmenhadi	Sapindaceae	S	+++	LC
48	Dracaena maingayi Hook.f.	dragon plant	Asparagace ae	S	15	NE

49	Dracaena reflexa Lam.	Song of india	Asparagace ae	S	10	LC
50	Dracaena terniflora Roxb.	snake plant	Asparagace ae	S	5	NE
51	Eichhornia crassipes (Mart.) Solms	jalkumbhi	Pontederiac eae	Н	15	NE
52	Euphorbia hirta L.	dudhi	Euphorbiac eae	Н	+++	NE
53	Euphorbia neriifolia L.	Senhud	Euphorbiac eae	S	2	LC
54	Euphorbia tirucalli L.	chipti	Euphorbiac eae	Н	++	LC
55	Excoecaria cochinchinensis Lour.	Laila majnu	Euphorbiace ae	S	5	LC
56	Feronia limonia Swingle	kaitha	Rutaceae	Т	1	NE
57	Ficus benghalensis L.	bad	Moraceae	Т	2	NE
58	Ficus elastica Roxb. ex Hornem.	rubber	Moraceae	Т	1	LC
59	Ficus racemosa L.	Umber	Moraceae	Т	1	LC
60	Ficus religiosa L.	peepal	Moraceae	T	3	LC
61	Fumaria indica (Hausskn.) Pugsley	pitta papda	Papaverace ae	Н	25	NE
62	Gliricidia sepium (Jacq.) Walp.	Gliricidia	Fabaceae	Т	5	LC
63	Gloriosa superba L.	kalihari	Liliaceae	Н	5	LC
64	Hypoestes phyllostachya Baker	Polka dot plant	Acanthaceae	S	5	NE
65	Hyptis suaveolens (L.) Poit.	Van Tulsi	Lamiaceae	S	15	NE
66	Ixora coccinea L.	lokhandi	Rubiaceae	Т	3	NE
67	Jatropha gossypiifolia L.	ratanjot	Euphorbiac eae	S	5	LC
68	Kalanchoe mortagei Raym Hamet & H. Perrier	patharchatta			10	NE
69	Lantana camara L.	lantana	Verbinacea e	S	++	NE
70	Leucaena leucocephala (Lam.) de Wit	Subabool	Fabaceae	Τ	2	CD
71	Lilium michiganense Farw.	Lilly	Liliacae	Н	5	NE
72	Madhuca indica J.F.Gmel.	mahua	Sapotaceae	Т	5	NE
73	Mangifera indica L.	aam	Anacardiac eae	Т	11	DD

74	Marsilea quadrifolia L.	khatti bhaji	Marsileace ae	Н	++	LC
75	Martynia annua L.	baghanakha	Martyniace ae	S	2	NE
76	Mentha arvensis L.	pudeena	Lamiaceae	Н	20	LC
77	<i>Merremia emarginata</i> (Burm. f.) Hallier f.	rengani	Fabaceae	Н	++	LC
78	Mimosa pudica L.	chhui mui	Fabaceae	S	10	LC
79	Murraya koenigii (L.) Spreng.	meethi neem	Rutaceae	Т	10	LC
80	Neolamarckia cadamba (Roxb.) Bosser	kadam	Rubiaceae	Т	2	NE
81	Nephrolepis exaltata (L.) Schott	Boston fern	Nephrolepid aceae	S	2	LC
82	Ocimum basilicum L.	Mamra	Lamiaceae	Н	++	NE
83	Ocimum tenuiflorum L.	tulsi	Lamiaceae	Н	5	NE
84	Opuntia littoralis (Engelm.) Cockerell	nagphani	Cactaceae	S	5	LC
85	Pandanus amaryllifolius Roxb.	Screwpine	Pandanacea e	S	3	DD
86	Parthenium hysterophorus L.	gajar ghans	Asteraceae	Н	+++	NE
87	Passiflora edulis Sims	Kaurav Pandav	Boraginacea e	S	3	NE
88	Pedalium murex L.	pedalium	Pedaliacea e	Н	++	NE
89	Pellaea rotundifolia (G. Forst.) Hook.	Button fern	Pteridaceae	Н	5	NE
90	Peltophorum pterocarpum (DC.) K.Heyne	peltaphorum	Fabaceae	Т	4	NE
91	Peperomia argyreia (Hook.f.) E.Morren	Pathos	Piperaceae	S	5	NE
92	Philodendron giganteum Schott	philodendron	Areceae	Н	5	NE
93	Phyllanthus amarus Schumach. & Thonn.	bhui aonla	Phyllanthac eae	Н	++	NE
94	Phyllanthus emblica L.	aonla	Phyllanthac eae	Т	4	LC
95	Pistia stratiotes L.	water plant	Areceae	Н	50	LC
96	Pithecellobium dulce (Roxb.) Benth.	cheejbilai	Fabaceae	Т	2	LC
97	Polyalthia longifolia (Sonn.) Thwaites	china ashok	Annonacea e	Т	60	NE
98	Pongamia pinnata (L.) Pierre	karanj	Fabaceae	Т	8	LC

99	Psidium guajava L.	amarud	Myrtaceae	Т	6	LC
100	Rhynchosia minima (L.) DC.	van mung	Fabaceae	С	++	LC
101	Ricinus communis L.	arandi	Euphorbiac eae	S	6	NE
102	Rosa sinensis L.	gulab	Rosaceae	S	1	NE
103	Sansevieria subtilis N.E.Br.	Sarpkanda	Asparagace ae	S	10	NE
104	Saraca asoca (Roxb.) Willd.	ashok	Fabaceae	Т	2	VU
105	Senna obtusifolia (L.) H.S.Irwin & Barneby	chakoda	Fabaceae	Н	++	LC
106	Senna siamea (Lam.) H.S.Irwin & Barneby	acacia	Fabaceae	Т	9	LC
107	Sesbania grandiflora (L.) Pers.	August	Fabaceae	Т	1	DD
108	Sida acuta Burm.f.	bala	Malvaceae	S	+++	NE
109	Sida cordifolia L.	atibal	Malvaceae	Н	++	NE
110	Sida spinosa L.	bariyari	Malvaceae	S	+++	NE
111	Solanum nigrum L.	makor	Solanaceae	Н	20	NE
112	Solanum virginianum L.	bhatkataiya	Solanaceae	S	5	NE
113	Syzygium cumini (L.) Skeels	jamun	Myrtaceae	Т	5	LC
114	Tagetes erecta L.	genda	Asteraceae	Н	20	NE
115	Tamarix indica Willd.	Jhau	Tamaricacea e	S	1	NE
116	Tecoma stans (L.) Juss. ex Kunth	yellow alder	Bigoniacea e	Т	2	LC
117	Terminalia bellirica (Gaertn.) Roxb.	bahera	Combretac eae	Т	1	LC
118	Thevetia neriifolia Juss. ex Steud.	Pili Kaner	Apocynacea e	Т	2	NE
119	Thuja occidentalis L.	Thuja	Cupressace ae	S	4	LC
120	Tradescantia fluminensis Vell.	Spiderwort	Commelinac eae	Н	10	NE
121	Tridax procumbens (L.) L.	ghamra	Asteraceae	Н	+++	NE
122	Triumfetta rhomboidea Jacq.	lipti	Malvaceae	Н	++	NE
123	Urena lobata L.	chipak	Malvaceae	S	++	LC
124	Vallaris solanacea (Roth) Kuntze	jamun bela	Apocynace ae	С	5	NE
125	Vernonia cinerea (L.) Less.	neeli sahdevi	Asteraceae	Н	+++	NE
126	Xanthium strumarium L.	bada gokharu	Asteraceae	S	++	NE

127	Ziziphus jujuba Mill.	ber	Rhamnace	S	10	LC
			ae			
128	Ziziphus oenopolia (L.) Mill.	makaor	Rhamnace	С	2	LC
			ae			

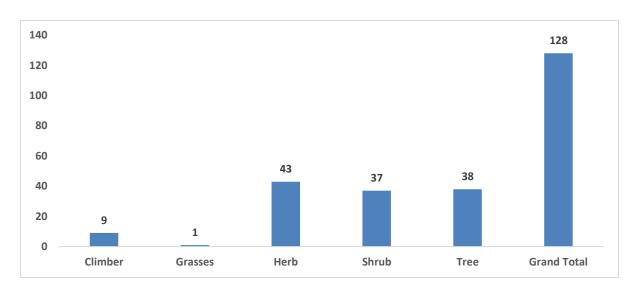


Figure-7.1: Showing comparative of habit wise diversity status existing at College Campus.

Conservation status as per IUCN categories

Total documented existing flora of college campus have 128 plant species as per the IUCN categories the listed plants has been separated habit wise with IUCN status and the analyzed results are given below in Table-7.2 and their graphical presentation were shown in the figure-7.2.

Table-7.2: IUCN status of existing Flora within the college Campus.

	CD	CR	DD	LC	NE	NT	VU	Grand Total
Climber				3	6			9
Grasses					1			1
Herb			1	11	31			43
Shrub		1	2	15	19			37
Tree	1		2	22	11	1	1	38
Grand								
Total	1	1	5	51	68	1	1	128

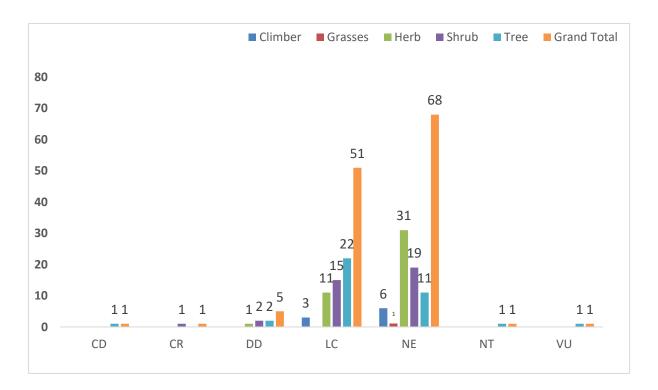


Figure-7.2: Showing conservation status of existing plants at College Campus.

View of College Campus Greenery











OPEN GYM



LIBRARY







CONCLUSION:

The institute strives hard and sincerely towards conservation of environment. Starting with the Environmental awareness programs till the practical changes like Solar panel system installation to conserve energy. The institute has put a lot of effort in the wastewater management also. It is noteworthy to say about the Compost Fertilizer Project and effective management of the environmental drives. It shows commitment and responsibility towards the Mother Nature. There are always opportunities for improvements which are noted in the different sections for making the activities robust. These would help in the journey of sustainable development which has already been started and reached at a remarkable height.

The Institute takes care of the students and staff well. The rooms are well ventilated and having a sufficient level of light. There is not much noise that would disturb the education process.

Member

(Dr Harshit Kumar Soni)
Assistant Professor
Department of Zoology,
Government Science College Pandurna,
Chhindwara (M.P.) PIN 480334

Member

(Dr Jitendra Jharbade)
Assistant Professor
Department of Chemistry
Government College, Amarwara,
Chhindwara (M.P.) PIN 480221

Lead Auditor

(Dr Rupesh Kapale)
Assistant Professor
Department of Botany,
Government Penchvalley College Parasiya,
Chhindwara (M.P.) PIN 480441