SBS GOVT. P.G. COLLEGE

PIPARIYA

SSR DOCUMENT

2018-19 TO 2022-23

CRITERION - 6

Governance, Leadership and Management

Metrics No. 6.5.1

Document Title:

Green audit reports

श्रमलभ्या सरस्वती

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OFFICE OF THE PRINCIPAL, SHAHEED BHAGAT SINGH
GOVERNMENT P. G. COLLEGE
PIPARIYA, DIST-NARMADAPURAM (M.P.)
Accredited by NAAC with B+ Grade
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Ref No. 1440/Est/SBSGPGCP/2024 Pipariya, Date 19.06.2024

DECLARATION

This is to declare that the information, reports, true copies of supporting documents, numerical data etc. furnished in this file as supporting documents are verified by IQAC and found correct.

IQAC Coordinator
Coordinator (IQAC)
Internal Quality Assurance Cell
S. B. S. Govt. P. G. College
PIPARIYA (M. P.)

Principal
PRINCIPAL
Shaheed Bhagat Singh Govt. P.G. College
PIPARIYA (M. P.)

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ENVIRONMENT AND GREEN AUDIT REPORT

01 April 2023—30 June 2024

Shaheed Bhagat Singh Govt. PG College, Pipariya,

District - Narmadapuram (M.P.)

Conducted By

Dheeraj Kr. Gupta, Scientist-D
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INDEX

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भा.वा.अ.शि.प.-उष्णकटिबंधीय वन अनुसंधान संस्थान
(पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, भारत सरकार के तहत एक स्वायत्त परिषद)
डाकघर- आर.एफ.आर.सी., मण्डला रोड, जबलपुर - 482021 (मध्य प्रदेश)
I.C.F.R.E.-Tropical Forest Research Institute
(Indian Council of Forestry Research & Education)
(An Autonomous Council under the Ministry of Environment, Forests & Climate Change, Govt. of India)
P.O. – R.F.R.C, Mandla Road, Jabalpur – 482021 (M.P)

CERTIFICATE OF ENVIRONMENT AND GREEN AUDIT

This is to certify that the "Environment and Green Audit" of Shaheed Bhagat Singh P.G. Government College, Pipariya, Madhya Pradesh has been successfully conducted by ICFRE-Tropical Forest Research Institute, Jabalpur for the duration 01st April 2023-30th June 2024. The audit aimed to enhance environmental sustainability practices within the campus, identifying significant achievements in implementing sustainable initiatives and fostering a greener campus environment.

Date: 8 July 2024

Place: Jabalpur

(Dr. Avinash Jain)
Scientist- F & Head
Forest Ecology and Climate Change Division

प्रभागाध्यक्ष / Head
वन पारिस्थितिकी एवं जलवायु परिवर्तन प्रभाग
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Tropical Forest Research Institute

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ACKNOWLEDGEMENT

I Would like to express my special thanks to faculty and staff for their support and sharing of required information for preparing the Environment and Green Audit report. I would Also like to extend my gratitude to the Dr. Rakesh Kumar Verma, Principal, Shaheed Bhagat Singh P.G. Government College, Pipariya, Madhya Pradesh who gave this opportunity to ICFRE-Tropical Forest Research Institute (TFRI), Jabalpur.

I extend my heartfelt gratitude to Dr. Jangam Deepika, Scientist-C, Forest Ecology and Climate Change Division, ICFRE-TFRI, Jabalpur, and Ms. Sangita Gami, Junior Project Fellow (JPF), for their invaluable support in conducting this audit and preparing the report. I am also deeply thankful to Dr. Avinash Jain, Scientist-F, Head of the Forest Ecology and Climate Change Division, for his invaluable guidance throughout this audit work. Finally, I sincerely thank Dr. H.S. Ginwal, Director of ICFRE-TFRI, Jabalpur, for his unwavering guidance and support.

08.07.24

(Dheeraj Kr. Gupta)

Scientist- D

Forest Ecology and Climate Change Division

I.C.F.R.E.-Tropical Forest Research Institute,

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धीरज कुमार गुप्ता / Dheeraj Kumar Gupta
वैज्ञानिक / Scientist
वन पारिस्थितिकी एवं जलवायु परिवर्तन प्रभाग
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Date: 08.07.24

Place: Jabalpur

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Executive Summary

The future of humanity hinges significantly on our ability to adopt low-consumption lifestyles, embracing sustainable development practices promptly. Scientists warn that the window to restore nature's ability to nurture thriving ecosystems may close by 2030. This urgency necessitates coordinated efforts worldwide, beginning now and continuing until a balanced state is achieved, where resource use is moderated and actions to heal environmental damage contribute positively to sustainability.

Many educational institutions have implemented the Eco Campus concept to address their substantial resource consumption and environmental impact. Recognizing the critical need to reverse environmental trends, Shaheed Bhagat Singh Government College, Pipariya approached ICFRE-Tropical Forest Research Institute, Jabalpur, to conduct an audit to ensure adherence to its Green Policy. This audit is mandated under Criterion VII of the Guidelines for Submission of the Internal Quality Assurance Report (IQAR) by Accredited Institutions.

The audit focused on various aspects of the Green Campus initiative, encompassing Water Conservation, Tree Plantation, Waste Management, Paperless Operations, and Alternative Energy. Its specific objectives were to assess the adequacy of the campus's environmental sustainability management framework and the departments compliance with relevant regulations, policies, and standards.

A team of scientists including Shri Dheeraj Gupta, Scientist-D; Dr. Jangam Deepika, Scientist-C visited college during 25-26 July, 2024. An initial meeting was convened to assess the existing resources of the campus and understand the resource consumption patterns among students and staff at Shaheed Bhagat Singh Government College, Pipariya. Collected data was systematically grouped, tabulated, and analyzed as part of an Environment and Green Audit process. Subsequently, a comprehensive report outlining the environmental management plan, including strengths, weaknesses, and suggestions for addressing campus environmental issues was documented.

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CHAPTER 1: INTRODUCTION

An Environment and Green Audit serves as a critical evaluation tool for identifying environmental compliance and management system, implementation gaps, guiding subsequent corrective actions. By analyzing resource usage such as energy and water consumption, as well as waste generation patterns, the audit informs strategies for implementing changes and achieving cost savings. Furthermore, it fosters health awareness and enhances environmental consciousness, promoting values and ethical practices. Overall, it significantly contributes to enhancing staff and student understanding of the campus's environmental footprint and sustainability efforts.

Need for Environment and Green Audit:

As environmental sustainability is becoming an increasingly important issue on a national scale, higher educational institutions play a pivotal role in championing environmental stewardship. Implementing the Green Campus framework becomes imperative for fostering sustainable development and significantly reducing atmospheric carbon dioxide levels. Notably, the Green Audit aligns with Criteria 7 of NAAC, the National Assessment and Accreditation Council, an autonomous body in India that accredits institutions based on predefined criteria. NAAC mandates that all higher educational institutions submit an annual Green Audit Report, underscoring their commitment to environmental responsibility. By actively reducing their carbon footprints, these institutions fulfill a crucial social responsibility towards mitigating global warming impacts.

Figure 1: Focus areas of Environment and Green Audit

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Objectives of the Environment and Green Audit:

- Understanding current sustainability practices related to water and energy usage, waste generation, transportation, procurement of goods, etc.
- Establishing a baseline of existing environmental conditions, with a focus on the natural and physical environment.
- Raising awareness among students and staff about critical environmental issues and sustainability.
- Creating a report documenting baseline data on best practices, alongside strategies and action plans to enhance environmental quality for the future.

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CHAPTER 2: ABOUT THE COLLEGE

The Government P. G. College, Pipariya (Madhya Pradesh) was established in July 1962 with the erstwhile name Jai Hind Adarsh Mahavidyalaya, Pipariya. In 1965, the college was taken over by the Department of Higher Education, Government of Madhya Pradesh and renamed Government College Pipariya. In 1983-84, the college was elevated to a postgraduate study center.

This is second largest co-educational college of the district with more than 2000 students. The college offers 16 subjects at UG and 9 at PG level in arts, commerce, science and law faculties. The college has a large campus which is spread over 8.7 acres of land. There are three double story buildings having 34 rooms of different sizes, two single storied buildings one for law and other for central office, one laboratory building consisting of physics, chemistry, zoology and botany labs. Apart from this, geography and computer labs and one smart class room are accommodated. Two separate rooms with indoor gymnasium facilities and tennis are allotted for sports. One girl's common room and a separate toilet for physically challenged persons have been newly constructed with ramp facility. One double story building of 10 rooms and one auditorium are under construction. New education Policy 2020 has been implemented at U.G. level. The National Assessment and Accreditation Committee (NAAC) awarded the college 'B+' grade in 2017.

Figure 2: The Main Gate of College

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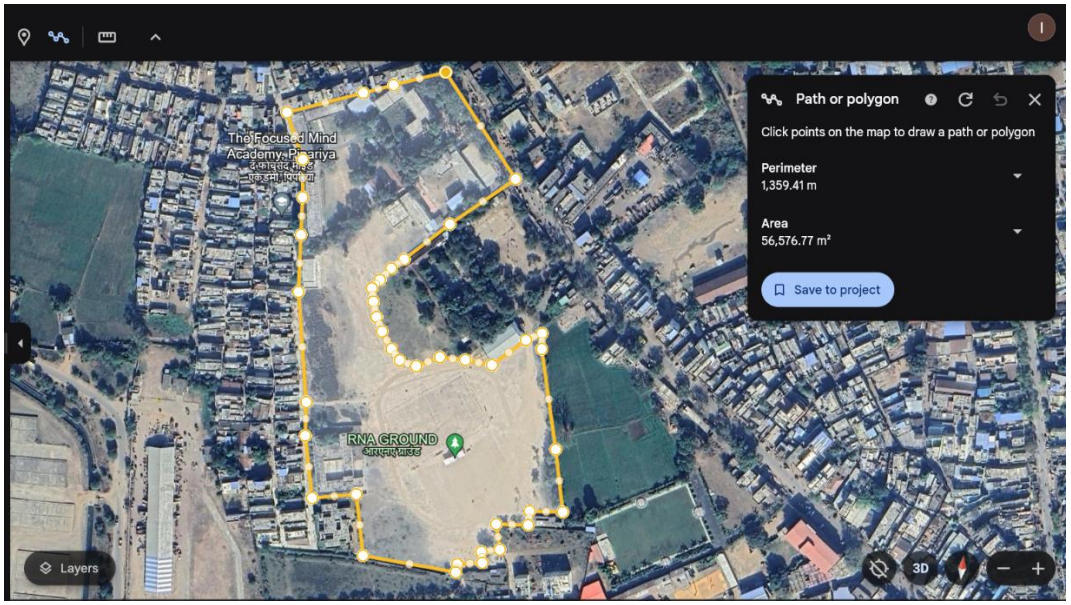

Figure 3: Google earth image of the college

Impart inclusive quality education to help them become socially committed citizens and competent professionals capable of meeting global challenges. Empowerment of students through value based holistic higher education. The objectives of the institution include:

- To impart quality knowledge and professionalism
- To inculcate and enrich ethical values
- To upgrade curriculum and make it consistent with the needs of the society
- To provide equal access and opportunities to physical challenged students and to students coming from weaker socio-economic backgrounds
- To sustain learning environment by promoting skill development and employability.

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CHAPTER 3: METHODOLOGY

To conduct the green audit, a comprehensive methodology was adopted, incorporating various tools such as physical inspection of the campus, observation and review of documentation, interviews with key personnel, data analysis and recommendations.

Onsite Visit

The key focus of the onsite visit was to assess the status of the institution's green cover, waste management practices, energy conservation strategies, and other environmental initiatives. The Environment and Green Audit covered the entire campus, considering processes within both academic and administrative departments. Facilities shared among departments were also evaluated.

Focus Group Discussion

Focus group discussions were held with staff members and the management, concentrating on various aspects of the Environment and Green Audit. These discussions aimed to identify attitudes and awareness regarding environmental issues at both institutional and local levels. Data on several aspects of the environment and green audit—such as energy management, water management, material management (consumables), waste management, pollution management, travel and transport management, knowledge management, ecology management, and disaster preparedness—were collected. The data was gathered through discussions with the principal, faculty, and other staff of the college, complemented by a physical survey and inspection of the campus.

Figure 4: Group discussion with college faculty

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The study covered various areas to provide a comprehensive overview of the current state of environmental management on campus:

A. Energy Management
B. Water Management
C. Material Management
D. Waste Management
E. Pollution Management
F. Knowledge Management
G. Ecology (Green area) Management

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CHAPTER 4: OBSERVATIONS AND RECOMMENDATIONS

A. Energy Management

The College primarily uses energy in the form of electricity provided by Madhya Pradesh Vidyut Vitran Company Ltd., Bhopal. For a proper analysis of energy consumption, we need to understand the electricity consumption over at least one academic year, and ideally three previous years. However, in this case we were able to obtain one and half year energy bills from January 2023 to May 2024.

Table:1. Summary of one and half year electricity consumption (units)

Sl No.	Year	Month	Unit
1	2023	January	1435
2	2023	February	1328
3	2023	March	1472
4	2023	April	2051
5	2023	May	2106
6	2023	June	2308
7	2023	July	2636
8	2023	August	1820
9	2023	September	1349
10	2023	October	1764
11	2023	November	2023
12	2023	December	1941
13	2024	January	1621
14	2024	February	1460
15	2024	March	1430
16	2024	April	1850
17	2024	May	2153

Based on the monthly unit consumption data from January 2023 to May 2024 (table – 1), the following conclusions are drawn:

1. **Seasonal Peaks:**
   - **Highest Consumption:** July 2023, with 2636 units.
   - **Lowest Consumption:** February 2023, with 1328 units.
2. **Month wise Comparison:**
   - **January:** 1435 units in 2023 vs. 1621 units in 2024 (increase).
   - **February:** 1328 units in 2023 vs. 1460 units in 2024 (increase).
   - **March:** 1472 units in 2023 vs. 1430 units in 2024 (slight decrease).
   - **April:** 2051 units in 2023 vs. 1850 units in 2024 (decrease).
   - **May:** 2106 units in 2023 vs. 2153 units in 2024 (increase).
3. **Seasonal Trends:**

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- Higher consumption during summer months (April to August), likely due to increased cooling needs.
- Lower consumption during cooler months (September to February).

Observations:

The main electric appliances in the college are lighting elements, fans, computers, Air Conditioners, LCD projectors, computers and accessories. There is good number of lighting elements which are LED based. The refrigerators and air conditioners are 3 and above star rated. All the other appliances are in reasonably good condition. Individual teaching staff regularly reminds the students to ensure switching off of the fan and lights.

The following energy saving practices were observed in the campus:

i. Each stakeholder taking up responsibility to ensure that they save energy in every possible way.
ii. Ensuring that the light and fans are not switched on in any corner of every classroom, staffroom, office and library unnecessarily.
iii. Upgrade to energy efficient LED lighting in the classrooms.
iv. Unplugging unused devices which are generally not practiced.
v. Painting class rooms with soft tones like off-white Colour will make it appear brighter and help in saving energy.
vi. Upgrading to energy efficient electric devices used in the campus.

B. Water Management

Observations:

The study observed that the main source of water for the college is received from 4 bore wells. Water is used for drinking purpose, toilets and gardening. During the survey, no loss of water was observed, neither through any leakages, or over flow of water from overhead tanks. On an average the total use of water in the college is 8350 L/day, which include 4100 L/day for domestic, 2025 L/day for gardening purposes and 2225 L/day for drinking purpose.

Sl. No	Parameter	Detail
1	Source of water	bore wells (4 Nos.)
2	No of motors used	4
3	Water level	Nominal
4	Any water wastage/why?	No
5	Water usage for gardening	2025 liter
6	Waste water sources	Canteen

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C. Material Management

To gather data, the audit team sought information on the utilization of office stationery, lab chemicals, food items, and other consumables, as well as practices related to reducing, reusing, or recycling from all departments. This data was obtained from the office and the Heads of the departments.

Observations:

a) The college is taking steps to ensure the responsible use of consumables.
b) Efforts towards increased digitization aim to create a paperless system.
c) Each teaching staff member receives a whiteboard marker and duster at the beginning of the academic year, reducing dependency on blackboard chalks (calcium carbonate/calcium sulphate).
d) Markers are refilled with ink and reused, promoting sustainability.

D. Waste Management

This indicator addresses waste production and disposal, encompassing paper, food, plastic, biodegradable, construction, glass, and dust. Effective solid waste management is crucial, as improper handling can pose significant threats. The survey focused on identifying and categorizing the various types of waste generated on campus, including solid waste, garden waste, and e-waste. Solid waste is further classified into dry waste (plastic, glass, paper, metal, garden waste) and wet waste (primarily food waste from lunch boxes and food labs).

Observations:

Figure 5: Dustbins for wet and dry waste management

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i. Solid waste management

Waste generated from tree droppings and lawn management are major solid wastes generated in the campus. Separate dustbins are provided for Bio-degradable and Plastic waste in order to segregate them at the source itself. The solid waste from respective floors is collected by the cleaning staff and separates wet and dry waste. The wet waste is composted in the pit to convert into manure and used for the plants in the campus. Less waste is generated by some departments, office, garden etc. Metal waste and wooden waste is stored and sent to authorize scrap agents for further processing. Glass bottles are reused in the laboratories. Regular meetings are conducted with ground staff regarding the cleanliness of the campus and proper disposal of waste.

Figure 6: Vermicompost Pit and Vermicompost manure

ii. E-waste Management

E-waste is a consumer and business electronic equipment that is near or at the end of its useful life. It is hazardous than other waste because electronic components contain cadmium, lead, mercury, and Polychlorinated biphenyls (PCBs) that can damage human health and the environment. It is being stored, keeping in mind the environmental hazards that may arise if not disposed properly. The cartridges of laser printers are refilled outside the college campus. The E- wastes and defective items from computer laboratories are being stored properly and recycled in effective Manner.

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Figure 7: E-waste management in the college

E. Pollution Management

Observations:

i. Some of college staff is using battery operated two wheelers and bicycles. Students living within 5 km distance of the campus is coming to college by bicycles and walking.

ii. In order to reduce the air pollution, the college has raised plantations of tree species, such as—*Azadirachta indica, Mangifera indica, Monoon longifolium, Ficus religiosa, Ficus bengalensis, Moringa oleifera, Phyllanthus embilca, Delonix regia, Vachellia nilotica, Dalbergia sissoo* and *Tamarindus indica.*

Ficus religiosa

Ornamental plants

Figure 8: Pollution management by maintaining age old tree and air purifying plants

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F. Knowledge Management

Observations:

The college conducts different environment-related activities and projects under the NSS program (Fig: 9). The college provides environment related education and awareness to the students by engaging them in different vocational courses like Environmental protection and disaster management, Vermiculture, organic farming, cultivation of medicinal plants etc.

Figure 9: Environmental protection awareness rally

Figure 10: Environment Day celebration

Figure 11: Students giving the message of cleanliness outside the college campus

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International women's day

Figure 12: Plantation along with municipal chairman (Mrs. Neeta Nagpal Ji Pipariya City), principal and other colleagues in the college campus

Figure 13: Plantation by college staff and student

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Figure 14: Sarpach village Richheda along with career cell in-charge S.B.S Government PG College Pipariya planted trees at village Richheda

Figure 15: Plantation and Environmental awareness program at Richhheda village

Figure 16: Environmental awareness street play at Dapka village (NSS Boys Unit)

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Figure 17: Plantation in village beejanwada by Incharge principal, college staff and students during 2018-2019

Figure 18: Cleanliness rally was taken out from the college for environmental protection during 2018-2029

Figure 19: Cyclothon (Environmental Awareness rally) sent from college with the participation of indian army on 24/11/2022

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G. Ecology Management

Observations:

Gardens: The College has four gardens in its premise which adds aesthetic value to the campus and also contributes to the biodiversity. A botanical garden of 100 x120 feet, green lawn in front of C- Block and Old building a small garden of 30 x40 feet in front of administrative building. The list of flora and fauna found in these gardens as well as in the campus is provided below in the report (Annexure-I & II).

Figure 20: Botanical Garden

Biodiversity in the campus: Despite located in the middle of city the Govt. PG College, Pipariya is rich in biodiversity. Its lush green campus provides habitat to many birds, butterflies and Odonates. The number of flora and fauna found in the campus is provided in table-2.

Table 2: Variety of flora and fauna in the campus

Sl No	Species of flora and fauna	Quantity
1	Trees	34
2	Medicinal Herb/ Wild herbs	31
3	Ornamental Plants	21
4	Birds	14
5	Butterflies	7
6	Odonates	3

Various tree plantation programmes are being organized at college campus through NSS (National Service Scheme) unit and Management. These programmes help in encouraging eco-friendly environment which provides pure oxygen within the institute and creates awareness among campus students. The plantation program includes various types of indigenous tree species, ornamental and medicinal plant species.

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CHAPTER 5: CONCLUSION

Shaheed Bhagat Singh Government College, Pipariya approached ICFRE-Tropical Forest Research Institute, Jabalpur, to conduct an audit to ensure adherence to its Green Policy. This audit is mandated under Criterion VII of the Guidelines for Submission of the Internal Quality Assurance Report (IQAR) by Accredited Institutions.

A team of scientists visited the college on 25-26 July 2024 to assess the existing resources of the campus and understand the resource consumption patterns among students and staff. They conducted an initial meeting with the college faculty. Subsequently, a comprehensive report outlining the environmental management plan, including strengths, weaknesses, and suggestions for addressing campus environmental issues, was documented.

The audit focused on various aspects of the Green Campus initiative, including water conservation, tree plantation, waste management, paperless operations, and alternative energy. The specific objectives were to assess the adequacy of the campus's environmental sustainability management framework and the departments' compliance with relevant regulations, policies, and standards.

The environmental audit of Shaheed Bhagat Singh Government College, Pipariya, revealed several noteworthy achievements in various areas of campus management. In Energy Management, the college has upgraded to energy-efficient LED lighting in classrooms, significantly reducing electricity consumption. Water Management practices have been exemplary, with no water loss observed due to leaks or overflows. Material Management initiatives, such as the responsible use of consumables and the reuse of refilled markers, reflect the college's commitment to sustainability. Waste Management is effectively handled with the segregation of bio-degradable and plastic waste, composting of wet waste, and proper disposal of e-waste to minimize environmental hazards. Pollution Management efforts include encouraging the use of bicycles and battery-operated vehicles, as well as tree plantations to combat air pollution. Knowledge Management is actively pursued through environmental education and various NSS programs that engage students in vocational courses related to environmental protection. Finally, Ecology Management has resulted in the maintenance of four gardens on campus, enhancing biodiversity and providing a habitat for various birds, butterflies, and other fauna. These significant positive findings highlight the college's dedication to fostering a sustainable and environmentally conscious campus.

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In conclusion, several practical steps have been suggested to further enhance the environmental sustainability of the college campus. These measures aim to reduce the environmental impact and nurture a culture of environmental awareness within the college community. The key recommendations are as follows:

1. Explore rooftop solar PV for electricity generation.
2. Investigate the feasibility of sewage water treatment and reuse for purposes like toilet flushing and gardening.
3. Continue efforts towards paperless administration while implementing effective electronic waste management systems.
4. Expand environmental activities to include education on climate change mitigation, adaptation issues, challenges, and career opportunities.
5. Explore the installation of monitoring devices on campus to track air pollution from nearby busy roads.

These recommendations aim to further enhance the college's environmental sustainability efforts, ensuring a greener and more resilient campus environment.

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Annexure 1

Shaheed Bhagat Singh Govt. PG College, Pipariya Campus Flora

List of Wild and Evergreen trees			
Sr. No.	**Scientific name**	**Common name**	**Local name**
1.	*Nyctanthes arbor-tristis* L.	Tree of Sorrow	Parijatak, Harsingar
2.	*Dalbergia sissoo* Roxb. ex DC.	Indian rosewood	Shisham
3.	*Phyllanthus emblica* L.	Indian gooseberry	Aonla
4.	*Alstonia scholaris* (L.) R.Br.	Scholar Tree	Saptaparni
5.	*Syzygium cumini* (L.) Skeels	Java plum	Jamun
6.	*Cordia dichotoma* G.Forst.	Indian cherry	Lasora
7.	*Aegle marmelos* (L.) Corrêa	Bel	Bel
8.	*Pongamia pinnata* (L.) Pierre	Pongame Oil Tree	Karanj
9.	*Tamarindus indica* L.	Tamarind	Imli
10.	*Cassia fistula* L.	Golden shower tree	Amaltas
11.	*Thespesia populnea* (L.) Sol. ex Corrêa	Indian tulip tree	Paras pipal
12.	*Ficus religiosa* L.	Sacred fig tree	Peepal
13.	*Ficus benghalensis* L.	Banyan tree	Bargad
14.	*Terminalia catappa* L.	Indian Almond	Jangli badam
15.	*Butea monosperma* (Lam.) Kuntze	Flame of the Forest	Palash
16.	*Bombax ceiba* L.	Silk Cotton Tree	Semal
17.	*Azadirachta indica* A.Juss.	Neem	Neem
18.	*Ailanthus excelsa* Roxb.	Indian Tree of Heaven	Maha neem
19.	*Annona squamosa* L.	Custard apple	Sitaphal
20.	*Ficus carica* L.	Common Fig	Anjeer
21.	*Neolamarckia cadamba* (Roxb.) Bosser	Kadamb	Kadamb
22.	*Jatropha curcas* L.	Jatropha	Ratanjot
23.	*Delonix regia* (Bojer ex Hook.) Raf.	Flame Tree	Gulmohar
24.	*Monoon longifolium* (Sonn.) B.Xue &	False Ashok	Ashok
25.	*Plumeria alba* L.	White Frangipani	Champa
26.	*Mimusops elengi* L.	Spanish cherry	Maulsari
27.	*Cascabela thevetia (L.) Lippold*	Yellow Oleander	Peeli Kaner
28.	*Mangifera indica* L.	Mango	Aam
29.	*Pithecellobium dulce* (Roxb.) Benth.	Madras Thorn	Jangal Jalebi
30.	*Senegalia catechu* (L.f.) P.J.H.Hurter & Mabb.	Black Cutch Tree	Khair
31.	*Vachellia nilotica* (L.) P.J.H.Hurter & Mabb.	Gum arabic	Babool
32.	*Moringa oleifera* Lam.	Drumstick	Senjana, Moonaga
33.	*Limonia acidissima L.*	Wood apple	Kaith
34.	*Phoenix sylvestris (L.) Roxb.*	Wild Date Palm	Khajur
List of Medicinal Herb/ Wild herbs			
Sr. No.	**Scientific name**	**Common name**	**Local name**
1.	*Kalanchoe pinnata* (Lam.) Pers.	Canterbury Bells	Amar poi
2.	*Euphorbia hirta* L.	Common spurge	Bara dudhi
3.	*Phyllanthus amarus Schumach. & Thonn.*	Carry Me Seed	Bhui aonla
4.	*Oxalis corniculata* L.	Creeping Wood Sorrel	Amrul

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5.	*Boerhavia diffusa* L.	Red Spiderling	Punarnava
6.	*Cissus quadrangularis* L.	Bone setter	Hadjod
7.	*Butea superba* Roxb. ex Willd.	Palash Lata	Bel-palash
8.	*Solanum americanum* Mill.	American Black Nightshade	Chirpoti
9.	*Solanum diphyllum* L.	Two leaf Nightshade	Pili Makoe
10.	*Achyranthes aspera* L.	Prickly Chaff Flower	Apamarga, Aghara
11.	*Barleria prionitis* L.	Porcupine Flower	Vajradanti
12.	*Dioscorea bulbifera* L.	Air potato	Zimikand
13.	*Malvastrum coromandelianum* (L.) Garcke	False Mallow	Kharenti
14.	*Sida cordata* (Burm.f.) Borss.Waalk.	Heart-Leaf Sida	Bhuinii
15.	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Heart-leaved moonseed	Giloy
16.	*Rhynchosia minima* (L.) DC.	Burn-Mouth Vine	Kulata
17.	*Coccinia grandis* (L.) Voigt	Ivy Gourd	Kundru
18.	*Sphagneticola trilobata* (L.) Pruski *	Creeping daisy	Creeping daisy
19.	*Parthenium hysterophorus* L.*	Congress grass	Gajar ghas
20.	*Oldenlandia corymbosa* L.	Corymb Diamond Flower	Pitpapra
21.	*Alternanthera sessilis* (L.) DC.	Sessile Joyweed	Garundi
22.	*Acalypha indica* L.	Indian Copperleaf	Kuppi
23.	*Cyanthillium cinereum* (L.) H.Rob.	Little ironweed	Sahadevi
24.	*Heliotropium indicum* L.	Indian Heliotrope	Hathajori
25.	*Asparagus racemosus* Willd.	Satawari	Shatamuli
26.	*Curcuma longa* L.	Turmeric	Haldi
27.	*Trachyspermum ammi (L.) Sprague*	Ajwain	Ajwain
28.	*Plumbago zeylanica* L.	Safed Chitrak	Safed Chitrak
29.	*Rauvolfia serpentina* (L.) Benth. ex Kurz	Indian Snakeroot	Sarpagandha
30.	*Mentha spicata* L.	Garden mint	Pudina
31.	*Ocimum tenuiflorum* L.	Holy Basil	Tulsi

List of Air Purifying/ Ornamental Plants

Sr. No.	Scientific name	Common name	Local name
1.	*Passiflora foetida* L.	Passion flower	Pandav Bel
2.	*Dieffenbachia seguine* (Jacq.) Schott	Dumb cane	
3.	*Dracaena trifasciata* (Prain) Mabb.	Mother in law's tongue	
4.	*Codiaeum variegatum* (L.) Rumph. ex A.Juss.	Croton	
5.	*Polyscias fruticosa* (L.) Harms	Shield Aralia	
6.	*Beaucarnea recurvata* (K.Koch & Fintelm.) Lem.	Ponytail Palm	
7.	*Hymenocallis littoralis* (Jacq.) Salisb.	Beach Spider Lily	
8.	*Cestrum nocturnum* L.	Night Blooming Jasmine	
9.	*Tradescantia spathacea* Sw.	Moses in the Cradle	

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10.	*Canna indica* L.	Indian Shot	Sarvajjaya
11.	*Acalypha wilkesiana* Müll.Arg.	Copperleaf	
12.	*Rosa indica* L.	Rose	Rose
13.	*Euphorbia tithymaloides* L.	Devil's Backbone	Dudhi
14.	*Clematis gouriana* Roxb. ex DC.	Bel kangu	Morvel
15.	*Dracaena zeylanica* (L.) Mabb.	Snake plant	
16.	*Cereus fernambucensis* Lem.	Torch Cactus	
17.	*Euphorbia lactea* Haw.	Mottled spurge	
18.	*Agave angustifolia Haw.*	Variegated Agave	
19.	*Nymphaea nouchali* Burm.f.	Blue water lily	Neel Kamal
20.	*Platycladus orientalis* (L.) Franco	Morpankhi	Thuja
21.	*Duranta erecta* L.	Pigeon Berry	Neelkanta

* = Invasive species

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Annexure 2

Shaheed Bhagat Singh Govt. PG College, Pipariya Campus Fauna

List of Birds		
Sr .No.	**Scientific Name**	**Common Name**
1.	*Pycnonotus cafer*	Red-vented Bulbul
2.	*Columba livia*	Rock Pigeon
3.	*Eudynamys scolopaceus*	Asian Koel
4.	*Vanellus indicus*	Red-wattled Lapwing
5.	*Apus affinis*	Little Swift
6.	*Acridotheres tristis*	Common Myna
7.	*Argya striata*	Jungle Babbler
8.	*Cinnyris asiaticus*	Purple Sunbird
9.	*Ocyceros birostris*	Indian Gray Hornbill
10.	*Copsychus fulicatus*	Indian Robin
11.	*Streptopelia senegalensis*	Laughing Dove
12.	*Dicrurus macrocercus*	Black Drongo
13.	*Merops orientalis*	Green Bee Eater
14.	*Sturnia pagodarum*	Brahminy Starling
List of Butterflies		
Sr .No.	**Scientific Name**	**Common Name**
1.	*Danaus genutia*	Common Tiger
2.	*Eurema hecabe*	Common Grass Yellow
3.	*Luthrodes pandava*	Plains cupid
4.	*Danaus chrysippus*	Plain Tiger
5.	*Junonia lemonias*	Lemon Pansy
6.	*Catopsilia Pomona*	Common Emigrant
7.	*Talicada nyseus*	Red Pierrot
List of Odonates		
Sr. No.	**Scientific Name**	**Common Name**
1.	*Diplacodes trivialis*	Ground Skimmer
2.	*Crocothemis servilia*	Ruddy Marsh Skimmer
3.	*Agriocnemis pygmaea*	Pygmy Dartlet

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PHOTO GALLERY

Flora and Fauna of the campus









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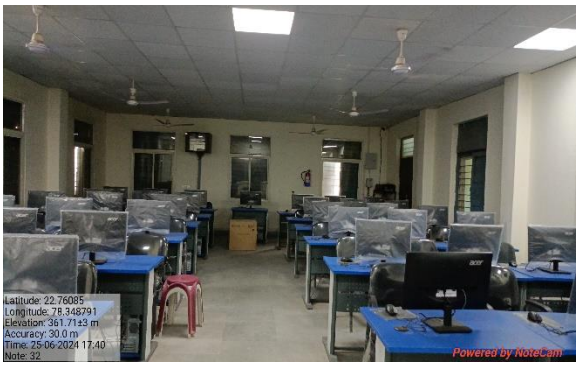
Facilites of the college

Girls common room

e-Classroom

Classroom

Auditorium



Computer Lab

Open Gym

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Library

Play Ground

DISCLAIMER

This is explicitly declared that all photos under figure no. 9-19 have been provided by the college.

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