

ENVIRONMENT AUDIT REPORT FOR R.K. VIGYAN (P.G.) MAHAVIDYALAYA



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Kalwar, Jaipur, Rajasthan

Environment Audit Report No: ENVA06032024



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Acknowledgement

Elion Technologies and Consulting Pvt Ltd thanks the management of R.K. Vigyan (P.G.) Mahavidyalaya for assigning this important work of Environmental Audit. We appreciate the cooperation to our team for completion of study.

For giving us necessary inputs to carry out this very vital exercise of Environment Audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

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Site Information

Name of College	R.K. Vigyan (P.G.) Mahavidyalaya
College Address	Behind Kalwar Police Station, Kalwar, Jaipur Raj. 303706
Execution Partner	ELION Technologies & Consulting Pvt Ltd
Communication Address	307, 3rd Floor DDA Lal Market H-Block Vikas Puri, New Delhi, 110018
Date of Audit	06 th March 2024
Year of Audit	2022 – 2023
Audit Participants	R.K. Vigyan (P.G.) Mahavidyalaya
Total College Area	54,454 Square Feet
Total Green Area	29,760 Square Feet

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Concept

The term 'Environmental audit' means differently to different people. Terms like 'assessment', 'survey' and 'review' are also used to describe similar activities. Furthermore, some organizations believe that an 'environmental audit' addresses only environmental matters, whereas others use the term to mean an audit of health, safety and environment-related matters. Although there is no universal definition of Environmental Audit, many leading companies/ institutions follow the basic philosophy and approach summarized by the broad definition adopted by the International Chambers of Commerce (ICC) in its publication of Environmental Auditing (1989).

The ICC defines Environmental Auditing as:

"A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of safeguarding the environment and natural resources in its operations/projects."

The European Commission, in its proposed regulation on environmental auditing, has also adopted the ICC definition of Environmental Audit.

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Introduction

A clean and healthy environment aids effective learning and provides a conducive learning environment. There are various efforts around the world to address environmental education issues.

Environmental Management Systems (EMS) is very popular in the industrial sector, but the general belief is that EMS is something pertaining to industries only. Other parts of the world have started adopting compatible environmental management systems either voluntarily or for promoting standards by external certification. International environmental standards do not suit the existing Indian educational system.

A very simple indigenized system has been devised to monitor the environmental performance of educational institutions. It comes with a series of questions to be answered on a regular basis. Environmental conditions may be monitored from angles that are relevant to Indian requirements, without stress on legal issues or compliance. This innovative scheme is user-friendly and totally voluntary. The environmental monitoring system helps the institution to set environmental examples for the community and to educate young learners. It can be adapted to urban and / or rural situations.

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Overview of Campus

R.K. Vigyan (P.G.) Mahavidyalaya is highly reputed, philanthropic education trust, serving as the "Educational Oasis" in Jaipur Region since long. The trust is spear-headed by the trustees who are known for their high energy level, vision and devotion to the cause of furthering educational opportunities for students of the new age. R.K. Vigyan (P.G.) Mahavidyalaya began its glorious journey from July 2003, after the approval of Govt. of Rajasthan with faculties of arts and commerce at present the students are benefitted with all the three faculties' arts, commerce and science. We are also running PG Courses in Geography, Pol. Science, Drawing & Painting, Chemistry, Botany, Zoology, Physics.

R.K. Vigyan (P.G.) Mahavidyalaya Kalwar is a renowned educational institution located in Kalwar, Rajasthan. Established with the vision of promoting education and knowledge, our college offers a wide range of undergraduate and postgraduate programs in various disciplines.

List of courses offered by the institute:

- B.A: (Hindi Lit., Sanskrit Lit., Urdu Lit., English Lit., Political Science, Public Adm., D & P., Econ., Home Sci., Socio., History., Geography)
- B.Sc.: (Botany, Zoology, Chemistry, Physics, Mathematics, Home Science)
- B.COM.: (ABST, BADM, EAFM)
- M.A.: (Political Science, Drawing Painting, Hindi Lit., History)
- M.Sc.: (Botany, Zoology, Chemistry, Physics, Mathematics)
- M.A./M.Sc.: Geography

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Audit Objectives

The broad aims/ benefits of the eco-auditing system would be -

- Environmental education through systematic environmental management approach.
- · Improving environmental standards.
- Benchmarking for environmental protection initiatives.
- Reduction in resource use.
- Financial savings through a reduction in resource use.
- Curriculum enrichment through practical experience.
- Development of ownership, personal and social responsibility for the college campus and its environment.
- Enhancement of university profile.
- Developing an environmental ethic and value systems in young people.

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Executive Summary

An environmental audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance.

This is second environmental audit of campus for NACC affiliation; QS Program and doing their bid towards environmental protection and environmental awareness at local and global front. Audit criterion is environmental cognizance, waste minimization and management, biodiversity conservation, water conservation, energy conservation and environmental legislative compliance by the campus. A questionnaire is used during audit. This audit report contains observations and recommendations for improvement of environmental consciousness.

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Environmental Audit

The areas of eco/environmental/green auditing to be followed/practiced by participating institutions:

- I. Waste Minimization and Recycling
- II. Greening
- III. Energy Conservation
- IV. Water Conservation
- V. Clean Air
- VI. Animal Welfare
- VII. Environmental Legislative
- VIII. General Practices

Where is the campus located?

The campus is located Behind Kalwar Police Station, Jaipur - 30370.

What is the total permanent population of the Institute?

	Male	Female	Total
Students	170	230	400
Teachers	34	14	48
Non-Teaching Staff	12	04	16
Sub Total	216	248	464
Approximate Number of Visitors (Pe	30		
What is the total number of working year?	300		

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Which of the following are available in your campus?

1	Garden area	Yes
2	Playground	Yes
3	Kitchen	Yes
4	Toilets	Yes
5	Garbage Or Waste Store Yard	Yes
6	Laboratory	Yes
7	Canteen	Yes
8	Hostel Facility (Numbers)	No
9	Guest House	No

Which of the following are found near your campus?

1	Municipal dump yard	No
2	Garbage heap	No
3	Public convenience	No
4	Sewerline	No
5	Stagnant water	No
6	Op en drainage	No
7	Industry – (Mention the type)	No
8	Bus / Railway station	Yes
9	Market / Shopping complex / Public halls	No

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I - WASTE MINIMIZATION AND RECYCLING

1.	Does your institute generate any waste? If so, what are they?	Yes Canteen Waste
2.	What is the approximate amount of waste generated per day? (in Kilograms/month) (approx.)	5 Kg (150 kg/month)
3.	How is the waste generated in the institute managed? By 1 Composting 2 Recycling 3 Reusing 4 STP Plant 5 Others(specify)	Composting
4.	Do you use recycled paper in institute?	Yes
5.	Do you use reused paper in institute?	Yes
6.	How would you spread the message of recycling to others in the community? Have you taken any initiatives? If yes, please specify.	Through awareness seminar poster slogan etc
7.	Can you achieve zero garbage in your institute? If yes, how?	Yes, Recycling non disposable, composting biodegradable, reusing waste water by stp

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II – GREENING THE CAMPUS

1.	Is there a garden in your institute?	Yes
2.	Do students spend time in the garden?	Yes
3.	Total number of Plants in Campus	200+
4.	Provide some names of trees and plants in the campus.	Rose, Jamun, Mango, Gudhal, Ashok, Shtavari, Champa, Neem, Amrood, Gilmohar, Shahtoot, Chiku, Avla, Sheeshm Etc.
5.	Is the university campus have any Horticulture Department?	No
	If yes, number of Staff working in Horticulture Department?	NA
6.	Number of Tree Plantation Drives organized by School per annum.(If Any)	1 per year
7.	Number of Trees Planted in Last year.	20+
	Survival Rate	80%
8.	Plant Distribution Program for Students and Community	Yes Plant Distribution Program for Students and Community per year
9.	Plant Ownership Program	Planning to adapt ownership program in the coming session

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III – ENERGY

1.	List down ways that you use energy in your institute. (Electricity, LPG, firewood, others). Using this list, try to think of ways that you could use less energy every day.	 LPG is used for cooking purpose in the college canteen. Electricity for running all the electrical equipment's like, motors, pumps, computers, machines, lights and fans.
2.	Are there any energy saving methods, equipments, techniques employed in your institute? If yes, please specify. If no, suggest some	Yes five star equipment are always preferred, led lights used, banner and poster to save energy
3.	Give an estimate of number of lights installed in your campus along with numbers?	102
4.	Are any alternative energy sources employed/installed in your institute? (photovoltaic cells for solar energy, windmill, energy efficient stoves, etc.,) Specify.	No, we are planning to install a 10 KW rooftop solar plant
5.	Do you run "switch off" drills at institute?	Yes
6.	Are your computers and other equipment's put-on power-saving mode?	Yes
7.	Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes most of the time? If yes, how many hours?	Yes, 3-4 Hours

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IV - WATER CONSERVATION

1.	List all the uses of water in your institute?	 Drinking & in Cooking Irrigation for garden Washing & Cleaning Washrooms 			
2.	How does your institute store water? (mention tanks with capacity) Are there any water saving techniques followed in your institute?	2000 Ltrs			
3.	If there is water wastage, specify why and how can the wastage be prevented/ stopped?	No STP Plant used in campus			
4.	Locate the point of entry of water and point of exit of waste water in your institute. Entry- Exit-	Entry –Overhead Tank Exit – Through STP Plant and Gardening			
5.	Write down few ways that could reduce the amount of water used in your institute?	 Check our toilet for leaks. Stop using our toilet as an ashtray or wastebasket Take shorter showers Install water – saving shower heads or flow restrictors. Turn of the water while not in use We use signage to educate staff and students. 			
6.	Record water use from the institute water meter for six months (record at the same time of each day). At the end of the period, compile a table to show how many litres of water have been used.	Yes, 5000 liters per day			

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7	7.	Does your institute harvest rain water? (Please explain the method and uses)	No
8	3.	Is there any water recycling System.	Yes

V - CLEAN AIR

1.	Are the Rooms in Campus are Well	Yes						
	Ventilated?							
2.	Number of windows per room (aggregate value to be provided)	2 per room						
3.	What is the ownership of the vehicles	-	Υe	es				
	used by your school? (Please Tick □only one)		Ol	perato	or-owne	d vehic	les	
		Yes	Co	ollege	e-owned	lvehicle	:S	
		-	- A combination of campus- owned and operator-owned vehicles					
4.	Provide details of school-owned motorized vehicles?	Buses	Cars		Van	Oth	er	Total
	No. of vehicles	5	2	2	0	0		7
	No. of vehicles more than five years old	0	()	0	0		0
	No. of Air conditioned vehicles	0	(0	0	0		0
	PUC done	5	2	2		0		7
5.	Specify the type of fuel used by your school's vehicles:	Buse	Buses Cars Vans O		Other			
	Diesel	5		1		0		6
	Petrol	0		1		0		1
	CNG	0	0			0		0
	LPG	0			0			0
	Electric	0		0		0		0
6.	Air Quality Monitoring Program (If Any)	Yes						
7.	Students suffer from respiratory ailments? (If	No						

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	Any)	
8.	Details of Diesel/Gas Generator. (Rating & make)	5 star rating

VI – ANIMAL WELFARE

1.	List the animals (wild and domestic) found on the campus (dogs, cats, squirrels, birds, insects, etc.) (if any)	No
2.	How many dogs in your area have undergone Animal Birth Control - Anti Rabies (ABC - AR)?	No
3.	Does your institute have a Biodiversity Programme or a KARUNA CLUB?	No

VII - ENVIRONMENTAL LEGISLATIVE COMPLIANCE

1.	Are you aware of any environmental Laws pertaining to different aspects of environmental management?	Yes
2.	Does your institute have any rules to protect the environment? List possible rules you could include.	 Consume less. Curbing consumption can have a huge impact on the environment. Compost. Choose reusable over single-use. Upcycle more. Recycle properly. Shop secondhand. Use STP Plant Uses of LED Bulbs & Tube lights
3.	Does Environmental Ambient Air Quality	No
	Monitoring conducted by the Institute?	

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4.	Does Environmental Water and Wastewater Quality monitoring conducted by the Institute?	Yes
5.	Does stack monitoring of DG sets conducted by the Institute?	Yes
6.	Is any warning notice, letter issued by state government bodies?	No
7.	Does any Hazardous waste generated by the Institute? If yes explain its category and disposal method.	No
8.	Does any Bio medical waste generated by the Institute? If yes explain its category and disposal method.	No

VIII – GENERAL

1.	Are you aware of any environmental Laws pertaining to different aspects of environmental management?	Yes
2.	Does your institute have any rules to protect the environment? List possible rules you could include.	 Use Reusable Bags. Print as Little as Necessary. Recycle. Use a Reusable Beverage Containers. Don't Throw Your Notes Away. Save Electricity Save Water. Avoid Taking Cars or Carpool When Possible.
3.	What is the housekeeping schedule of garden and common areas in your institute?	Weekly
4.	Are students and faculties aware of environmental cleanliness ways? If Yes Explain	 Volunteer for Different Projects. Use Your Creative Potential. Attend a March or Rally. Effective Use of social media. Emphasize on Individual Action. Create Informative Content.

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5.	Does Important Days Like World Environment Day, Earth Day, and Ozone Day etc. celebrated in your Campus?	Yes
6.	Does Institute participated in National and Local Environmental Protection Movement?	Yes
7.	Does Institute has any Recognition/certification for environment friendliness?	No
8.	Does Institute using renewable energy?	No
9.	Does Institution conducts a green/environmental audit of its campus?	Yes
10.	Has the institution been audited / accredited by any other agency such as NABL, NABET, TQPM, NAAC etc.?	Under Process for NAAC accreditation

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Recommendations

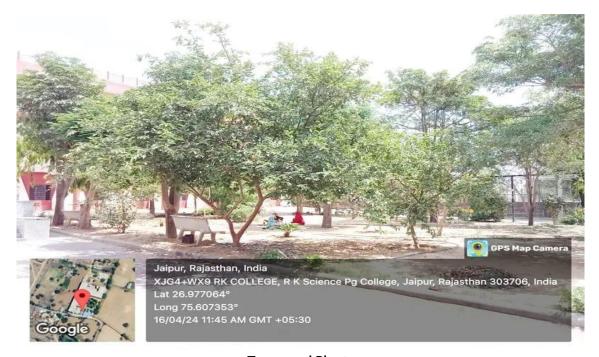
- Environment Policy to be adopted by the Campus.
- Waste handling policy shall be prepared and followed.
- Installation of solar power plant shall be considered.
- Equipment's when not in use shall be switched off and should not run in standby modes or ideal.
- Use of recycled paper shall be encouraged in the campus.
- Arrangement of training programmes on environmental management system and nature conservation for schools and local people.
- Water Meter should be installed at every building of institute for monitoring of water consumption.
- Prepared water flow diagram to quantify water use at various locations.



Photographic Evidences



Garden and Lawns



Trees and Plants

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Sewage Treatment Plant (if present)



Water tanks present in college

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Conclusion

This audit involved extensive consultation with all the campus team, interactions with key personnel on wide range of issues related to Environmental aspects. Overall, a large are of campus is for landscaping. The audit has identified several observations for making the campus premise more environmentally friendly. The recommendations are also mentioned with observations for university campus team to initiate actions.

The audit team opines that the overall site is maintained well from environmental perspective. There are no major observations but recommendation is made in this report which would further strengthen the goal to achieve 100% environment friendly campus.

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References

- The Environment [Protection] Act 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- The Petroleum Act: 1934 The Petroleum Rules: 2002
- The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle
- Rules:1989 (Amended in 2005)
- Energy Conservation Act 2010.
- The Water [Prevention & Control of Pollution] Act 1974 (Amended 1988) & the Water (Prevention & Control of Pollution) Rules – 1975
- The Water [Prevention & Control of Pollution] Cess Act-1977 (Amended 2003) and Rules- 1978
- The Air [Prevention & Control of Pollution] Act 1981 (Amended 1987) The Air (Prevention & Control of Pollution) Rules – 1982
- The Gas Cylinders Rules 2016 (Replaces the Gas Cylinder Rules 1981
- E-waste management rules 2016
- Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
- The Hazardous Waste (Management and Handling and Trans-boundary Movement) Rules, 2008 (Amended 2016)
- The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
- The Batteries (Management and Handling) rules, 2001 (Amended 2010)
- Relevant Indian Standard Code practices

End of Report

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