



GOVT ARTS & COMMERCE GIRLS COLLEGE RAIPUR

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Criteria-7Institutional Values and Best Practices

Metric No.	7.1 Institutional Values and Social Responsibilities	Documents enclosed
7.1.6	7.1.6Quality audits on environment and energy regularly undertaken by the Institution	<ul style="list-style-type: none">• Compiled document containing report on green audit initiatives carried out by the institution

Principal
Principal

Govt. Arts and Commerce Girls College
Devendra Nagar, Raipur (C.G.)



**DR. RADHABAI GOVT. NAVIN KANYA MAHAVIDYALAYA ,
RAIPUR, CHHATTISGARH**

No. E/101/V-5/2020

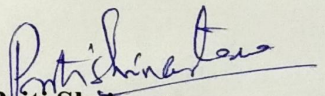
RAIPUR DATED 10.01.2020

Department of Botany

The development of any nation originates from its academics and education. Environment plays a pivotal role in imparting growth and development and is a primitive factor which needs precise care and maintenance. It is always desirable to have a clean, blooming and a profound environmental aid which leads to a strong base for healthy learning-teaching process with high efficiency. Educational institutions are becoming sensitive as well as inclined towards extra efforts on keeping the environment eco-friendly. This is a strong outcome of the environmental factors that are taken care off at consistent and regular intervals. As the educational institutes are keen of progressing at a fast pace, a lot of adverse effects are projected on the environment. Namely, waste generated out of electronics and teaching techniques, parking and vehicular emissions, etc.

Green Audit is one essential technique of analyzing such effects of the practices in education affecting the environment followed by the addressing of challenges as well as the possible solutions for keeping the environment safe, clean and green.

I am happy in submitting this green audit report to Govt. Arts and Commerce Girls College, Devendra Nagar, Raipur, Chhattisgarh.


Dr. Priti Shrivastava
H.O.D. Botany
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10 January 2020

Govt Arts and Commerce Girls College Raipur
GREEN AUDIT



Green auditing is a means of assessing environmental performance (Welford, 2002).

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 introduce and aware students to real concerns of environment and its Sustainability.
- To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use of 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 requiring high cost.
- To bring out a status report on environmental compliance.

Methodology

In order to perform green audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation, and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summaries the present status of environment management in the campus:

- Water management
- Energy Conservation
- Waste management
- Green area management

REPORT 1.

Analysis of Air quality and biodiversity

In total, based on our data collected, there are 962 plants in the college campus. In this, 26 plants are trees, 122 are plants of average length and 814 are small plants. So, 962 plants in our college contribute to the Oxygen supply that we utilize. Being situated in the urban area, our college is exposed to various

atmospheric pollutants from vehicles as well as by other external means. Based on our calculation, the different sources of carbon dioxide emitted to our college are:

- 1.Vehicles
- 2.Refrigerator
- 3.Air conditioners
- 4.Burning
- 5.Water coolers

- 1.Vehicles

On the days of data collection, there were 8 cars, 7 bikes and 42 scooters in our campus, which in turn proves us that these vehicles may contribute to high carbon dioxide emission. There are 5 refrigerators, 2 air conditioners and 2 working water coolers in our campus. The students, teaching and nonteaching staff and the visitors also contribute to carbon dioxide emission. There is a ring near the dog kennel where all the food papers are collected from the classes are burnt.

2. Analysis of Water quality and usage

The college campus possesses many water outlets. Our students have counted the total number of taps, coolers and borewell. We have found that in total, there are 35 taps, 2 water coolers, and a borewell. Out of these, 9 taps are leaking. The 9 leaking taps lead to water wastage.

3. Analysis of Energy consumption and costs

The college is well equipped with electricity supply. Each department possess computers, printers, fans, plug points, tube lights, bulbs, etc. In addition to this equipment, our college also has

1. Pathological microscope
2. A distillation unit
3. Photoelectric colorimeter
4. U V Transilluminator
5. 2 Autoclaves
6. 4 exhaust fans

7. A laminar air flow

8. A hot plate

9. An incubator

10. A table fan

11. A hot air oven

12. 2 centrifuges

13. A mike

14. A bell

4. Analysis of Waste generation and disposal

Wastes cannot be avoided in any environment. Wastes can be classified as Biodegradable and Non-biodegradable wastes. Biodegradable wastes include food wastes, which can be easily decomposed by the bacteria in soil. But nonbiodegradable wastes are those which cannot be degraded by any organism and remain as such for many years. Much amount of waste is generated from the college campus.

1. FOOD WASTE – The food waste is collected and given to pigs. Plastic waste is generally less generated. The plastic waste generated is burned inside the ring near the dog kennel.

2. LIBRARY - The most generated waste is paper waste. It is taken for recycling.

3. STORE- Not much waste is generated. But the paper waste and plastic covers are burned in the ring.

4. OFFICE- Paper waste generated are recycled and reused.

5. GARDEN-Plastic and paper waste is comparatively less.

6. AUDITORIUM -The wastes are collected after each program and are burned in the ring.

7. BATHROOM-The wastes are collected and burned in an incinerator behind the college.

8. CLASSROOMS-Paper Wastes are collected in the waste basket and recycled.

9. LABORATORY-The broken glass wastes and the useless instruments are disposed.

10. COLLEGE PREMISES-Plastic waste generated is usually less. But paper waste is generated in a larger amount.

OBSERVATIONS

1. On analyzing the air quality, we could assess that there are many pollutants in our environment (either in micro quantities or macro quantities), from the vehicles of the road. The burning of wastes, especially plastic waste, also causes emission of poisonous gases into the atmosphere. But there are many plants in our campus that purify the polluted air and supply enough oxygen for us.
2. Likewise, there are enough water outlets and water coolers for the students. But it is essential to check whether all these are working or not and whether the taps are leaking or not.
3. Energy consumption is yet another component that is to be taken care of. A few numbers of fans and tube lights are not working. An autoclave and a cooler are also not working.
4. Waste generated is mostly burned inside the ring near dog kennel. Fortunately, the nonteaching staff of the college is available to clean the college.

Green area management

This 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 many trees (species) to maintain the biodiversity. Various tree plantation programs are being organized during the month of July and August at college campus and surrounding villages through NSS unit. This program helps in encouraging eco-friendly environment which provides pure oxygen within the institute and awareness among villagers. The plantation program includes various type of indigenous species of ornamental and medicinal wild plant species. College celebrates every year 5th June as 'Environment Day' and planted trees on this day to make the campus Greener. College has college Environmental Committee (Eco club) that review of the Environmental Policy.

Conclusions

Because the institution is predominantly a women college, there is significant environmental research both by faculty and students. The environmental awareness initiatives are substantial. Besides, environmental awareness programs initiated by the administration shows how the campus is going green. Few recommendations are added to curb the menace of waste management using eco-friendly and scientific techniques. This may lead to the prosperous future in context of Green Campus & thus sustainable environment and community development. As part of green audit of campus, we carried out the environmental monitoring of campus including Illumination and Ventilation of the classroom. It was

observed that Illumination and Ventilation is adequate considering natural light. Best out of Waste Competitions are also organized to encourage waste management.

SUGGESTIONS

- Air Quality: More plants need to be planted. More of shade trees to be planted inside the college campus. Plastic wastes should not be burned that leads to pollution.
- Water Quality: Taps needed to be repaired. The water coolers which are not working need to be repaired immediately.
- Energy Consumption: Energy consumption could be reduced. Unnecessary lights and fans could be switched off. During daylight, lights can be switched off. Energy conserving methods like usage of LED and CFL bulbs can be appreciated.
- Separate baskets should be there for biodegradable and nonbiodegradable wastes.
- Vermicomposting plant and biogas plant should be set up.
- Agencies or individuals should be available to transport wastes from the college premises.
- College needs to have E-waste management policy and all the E-waste disposals generated in the college campus should be disposed/ reuse as per standard procedures/norms.
- Increase recycling education on campus.
- Increase reduce, reuse, and recycle education on campus.

RECOMMENDATIONS

- ❖ Installation Biogas plant and Compost units.
- ❖ Installation of Solar panels to generate electricity.
- ❖ Installation of rainwater harvest methods on roof top and ground.
- ❖ Install wastewater system for chemistry labs.
- ❖ Organize earn while learn eco-friendly programs.

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HOD Botany
Dr Radhabai Govt Navin
Kanya Mahavidyalaya Raipur

Plantation by NSS



Plantation by NSS

नवभारत

छत्तीसगढ़ • ओडिशा

Rajdhani - 24 Nov 2019 - raj6



देवेन्द्रनगर कन्या महाविद्यालय परिसर में रोपे गए पौधे

रायपुर. शासकीय कला एवं वाणिज्य कन्या महाविद्यालय, देवेन्द्र नगर में शनिवार को राष्ट्रीय सेवा योजना प्रभारी डॉ. मनीषा गर्ग के निर्देशन में पौधारोपण कार्यक्रम संचालित किया गया। इस अवसर पर ग्रीन आर्मी से अमिताभ दुबे विशेष रूप से सम्मिलित हुए, जिनके हाथों छात्राओं को राष्ट्रीय सेवा योजना के बैज प्रदान किए गए। इस दौरान वृक्ष प्रेमियों को 60 पौधे वितरित किए गए। कार्यक्रम

की शुरुआत बरगद का पेड़ लगाकर की गई। महाविद्यालय के प्राचार्य डॉ. जायसवाल के निर्देशन एवं मनोविज्ञान की विभागाध्यक्ष डॉ. उषा किरण अग्रवाल के प्रयासों से आयोजित इस कार्यक्रम में पूर्व प्राचार्य डॉ. श्रीमती संध्या वर्मा, डॉ. सुषमा तिवारी, डॉ. चित्रा देशपांडे, डॉ. कल्पना झा, डॉ. कविता शर्मा सहित बड़ी संख्या में छात्राओं की भागीदारी रही।

एनएसएस स्टूडेंट्स, वुमंस ने रोपे 60 से ज्यादा पौधे, देखभाल का लिया संकल्प



सिटी रिपोर्टर | देवेन्द्र नगर स्थित गवर्नमेंट आर्ट एंड कॉमर्स गल्स कॉलेज में एनएसएस की ओर से प्लांटेशन प्रोग्राम रखा गया। ग्रीन आर्मी संस्था, वुमंस और एनएसएस के मेम्बर्स ने कैम्प में 60 से ज्यादा फल और छायादार पौधे रोपे और उनकी देखभाल करने

का संकल्प लिया। इस मौके पर एनएसएस प्रभारी डॉ. मनीषा गर्ग, कॉलेज की पूर्व प्रिंसिपल डॉ. संध्या वर्मा, डॉ. सुषमा तिवारी, डॉ. चित्रा देशपांडे, डॉ. कल्पना झा, डॉ. कविता शर्मा, प्रिंसिपल डॉ. जायसवाल, डॉ. उषा किरण अग्रवाल सहित अन्य मौजूद रहे।



(सर्व दिना)

समस्तान पर
॥३॥ क-२॥ नगा २०५ दारिद्र्य महीविद्यार्थीय पूर्वज्ञात्र

प्रमाणित किया जाता है कि हमारी संस्था **ग्रीन आर्मी ऑफ रायपुर** द्वारा जल एवं तालाब संरक्षण हेतु दिनांक 9 नवम्बर 2019, स्थान बूढ़ातालाब परिक्षेत्र में आयोजित **सरोवर धरोहर** कार्यक्रम **मानव श्रृंखला, जल रथ रैली** एवं **शपथ समारोह** में आपके द्वारा **सम्पूर्ण** सहभागिता दर्ज कराई गई जिसके लिये हम आपको सम्मानित करते हुए यह सम्मान पत्र प्रदान करते हैं।

श्रीन आर्मी ऑफ रायपुर
अमिताभ दुबे

अभिज्ञानम् दुर्ब

Water Conservation Awareness by NSS (09/11/2019)

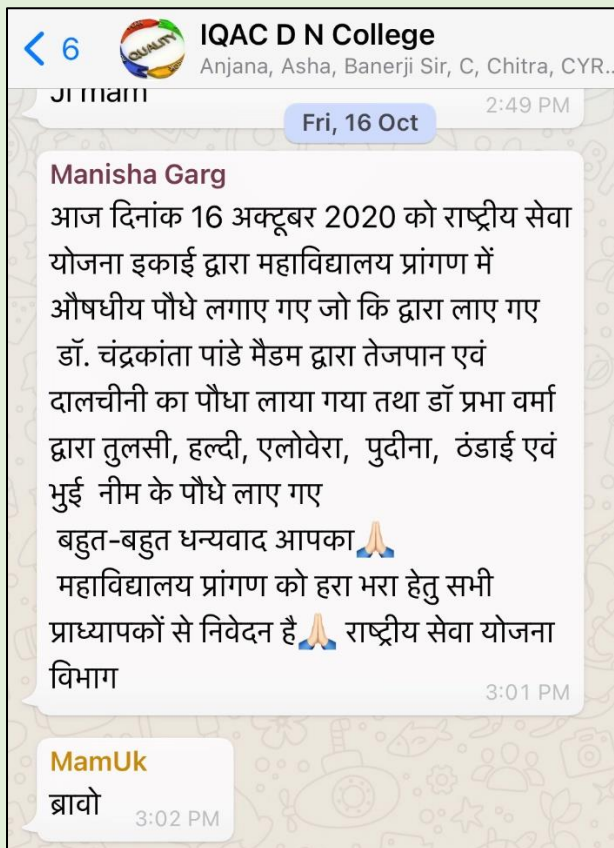
“जल संवर्धन रैली”



Vermicompost Khad Gifted by Dr Sandhya Verma (15 October 2019)



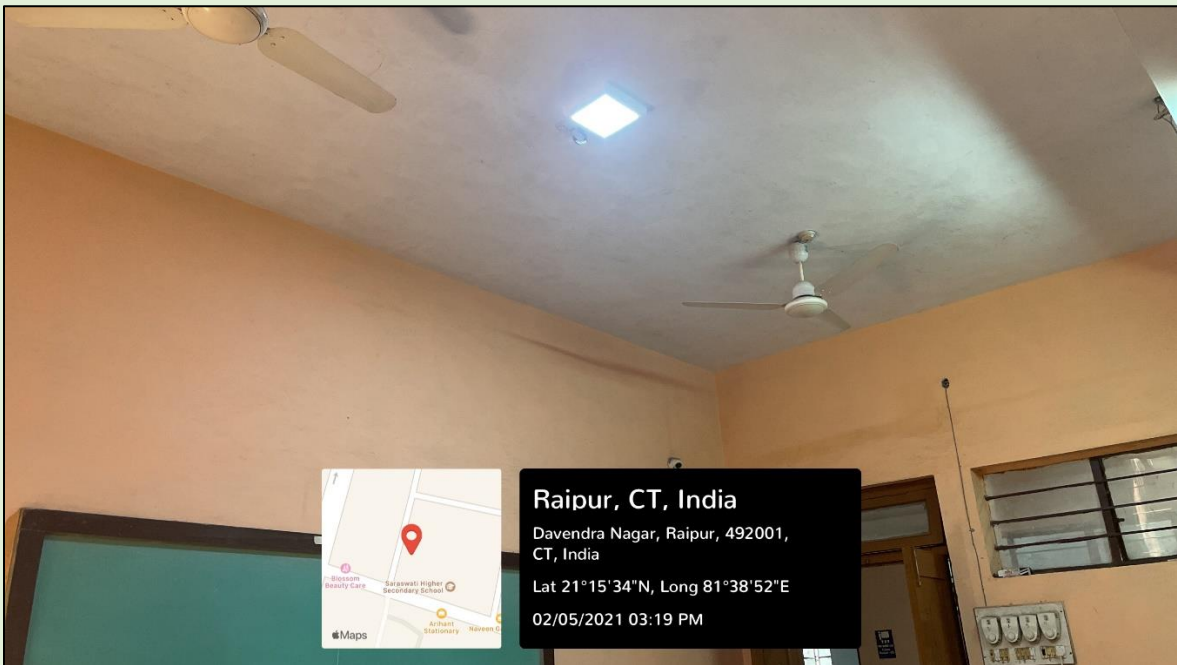
Some Plants Gifted by Faculties



Plantation by Sport students



Use of LED



Raipur, CT, India

Davendra Nagar, Raipur, 492001,
CT, India

Lat 21°15'34"N, Long 81°38'52"E

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