



ସରକାରୀ ସ୍ୱୟଂଶାସିତ ମହାବିଦ୍ୟାଳୟ, ରାଉରକେଲା  
GOVERNMENT AUTONOMOUS COLLEGE, ROURKELA  
Sundargarh, Raghunathpali, Rourkela, Odisha



## GOVERNMENT AUTONOMOUS COLLEGE, ROURKELA

# ENVIRONMENT AUDIT REPORT

2023-2024

PREPARED BY  
EHS ALLIANCE SERVICES



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# CERTIFICATE



# CERTIFICATE

PRESENTED TO

## GOVERNMENT AUTONOMOUS COLLEGE

Sundargarh, Raghunathpali, Rourkela, Odisha 769004

Has been assessed by EHS Alliance Services for the comprehensive study of environmental impacts on institutional working framework to fulfill the requirement of

## ENVIRONMENT AUDIT

**ACADEMIC YEAR 2023-24**

The environment legal compliances and initiatives carried out by the institution have been verified on the report submitted and were found to be satisfactory.

The efforts taken by management and faculty towards environment and sustainability are highly appreciated and noteworthy.

SIGNATURE



09.05.2024

DATE OF AUDIT





# ACKNOWLEDGEMENT

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EHS Alliance Services would like to thank the management of Government Autonomous College for assigning this important work of Environment Audit. We appreciate the co-operation to the teams for completion of assessment.

First of all, we would like to thank **Dr. Bijaya Kumar Behera - Principal** for giving us an opportunity to evaluate the environmental performance of the campus.

We would also like to thank **Smt. Rameshwari Bhoi Asst. Professor - Department of Political Science, Audit Coordinator** for her continuous support and guidance, without which the completion of the project would not have been possible. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

We are also thankful to

**Smt. Rameshwari Bhoi**  
**Mr. Choudhury Pardosh Ranjan**  
**Dr. Pratap Kumar Swain**

*Asst. Professor - Department of Political Science*  
*Asst. Professor - Department of Political Science*  
*Asst. Professor - Department of Chemistry*





# DISCLAIMER

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EHS Alliance Services Audit Team has prepared this report for Government Autonomous College based on input data submitted by the representatives of college complemented with the best judgment capacity of the expert team.

While all sensible care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

If you wish to distribute copies of this report external to your organisation, then all pages must be included.

EHS Alliance, its staff and agents shall keep confidential all information relating to your organisation and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies.

EHS Alliance staff, agents and accreditation bodies have signed individual confidentiality undertakings and will only receive confidential information on a 'need to know' basis.



**Signature**

**LEAD AUDITOR**

# CONCEPT AND CONTEXT

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In India, the process for environmental audit was first mentioned under the Environment Protection Act, 1986 by the Ministry of Environment of forests on 13th march, 1992. As per this act, every person owning an industry or performing an operation or process needs a legal consent and must submit an environmental report or statement.

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2019–20 onwards that all Higher Educational Institutions should submit an annual Green, Environment and Energy Audit Report. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the sustainable environment.

In view of the NAAC circular regarding environment auditing, the College management decided to conduct an external environment assessment study by a competent external professional auditor.

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 Environment 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.”

This audit focuses on the environment legal compliances and implementation of rules defined by MoEFCC or state pollution control board. The concepts, structure, objectives, methodology, tools of analysis, and objectives of the audit are discussed below.



# INTRODUCTION

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All living things are tremendously fortunate to have nature as a gift. Disturbances in nature give birth to environmental issues. These are expanding every day as a result of the planet's growing urbanization and industrialization. Our earth is under tremendous pressure from unplanned resource use, which is also raising global temperatures quickly. Thus, resource utilization needs to be planned sustainably in order to protect natural resources for future generations.

Globally, sustainable development is gaining popularity as a means of protecting the environment. The earth's valuable resources can be preserved by using resources wisely. The best way to preserve and safeguard natural resources is to measure environmental components.

Environmental auditing began in the early 1970s with the provision of civil lawsuits for non-compliance with environmental regulations. Environment auditing involves on-site visits, collection of samples, performing analyses, and reporting results to competent authorities.

Industry, the corporate world is initiating auditing for saving natural resources. Academic institutions also can contribute to the preservation and conservation of resources within their premises.

This "Environment Audit" report will assist everyone in considering how to protect resources, demonstrating a readiness to understand their value, taking action to reduce resource consumption, and serving as a role model for others by adopting eco-friendly behaviors in order to fulfill the objective of sustainable development. Environmental risks can be reduced at a reasonable cost by implementing environmental audits effectively.





# OVERVIEW OF THE COLLEGE

The College started as Rourkela Science College from 16 th August, 1961 and was taken over by Government Odisha on 01-07-1963. With the vertical academic growth of the College was conferred with autonomous status in 2002. In the year 2002 the College was accredited by NACC with Grade-B. The College offer variety of Courses at different levels. Besides Art, Science and Commerce at Higher Secondary and Degree levels the College also offers Master Degree in 17 subjects and M.Phil in 03 subjects i.e. Botany, English and Odia. M.Sc in Computer Science, Maste in Commerce, Degree Courses in Computer Science, Electronics and Tele-Communication(ETC), Mathematics with Computer(MTC), PGDCA, PGDCH come uner Self-finance courses. The College also offers various Degree and P. G. level Courses under Odisha State Open University. The College has been also provided separate Rooms for IGNOU Study Centre. As per the Circular of the Department of Higher Education Government of Odisha the College now stands Bi-furcated in to the Government Autonomous College, Rourkela with effect from Academic Session 2001-2002. Ironically the number of staff both teaching and non-teaching have gone-down after it was Autonomous. There by the Classes are engaged by Guest faculty who are engaged time to time.



The College has not received any UGC grant for last three years. Remuneration for non-teaching is paid from the fee collected from the students, as there is no special grant for the Government for this purpose. This has been a hindrance in achieving our mission of academic excellence to make this premier Institute , a centre of quality learning by training the students to be creative and competitive enough to face the challenges of the new millennium.



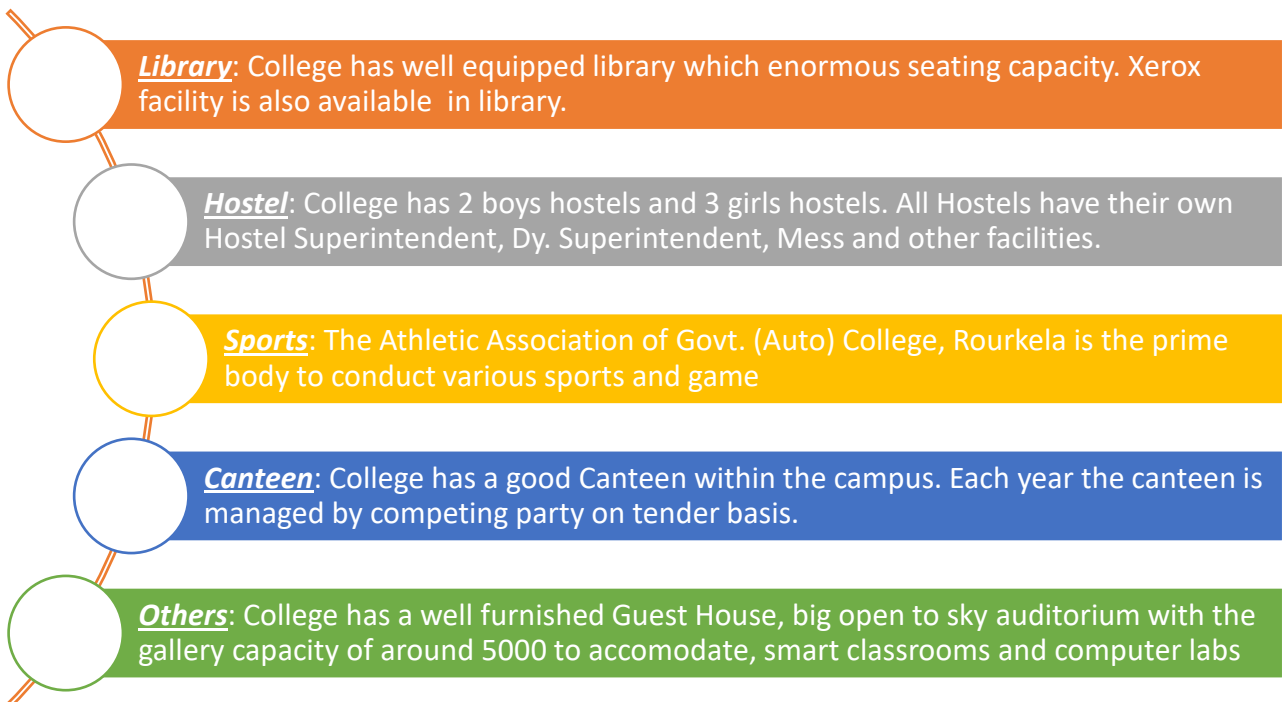
### MISSION

Our mission is to achieve academic excellence and to make this premier institution a centre of quality learning by training the students to be creative and competitive enough to face the challenges of the New-Millennium.

### VISION

- To promote quality learning and creativity among students and teachers.
- To introduce skill in the knowledge content with the view to be self reliant.
- To pursue higher studies and search so as to build a knowledge society.

## Facilities in the campus







Library



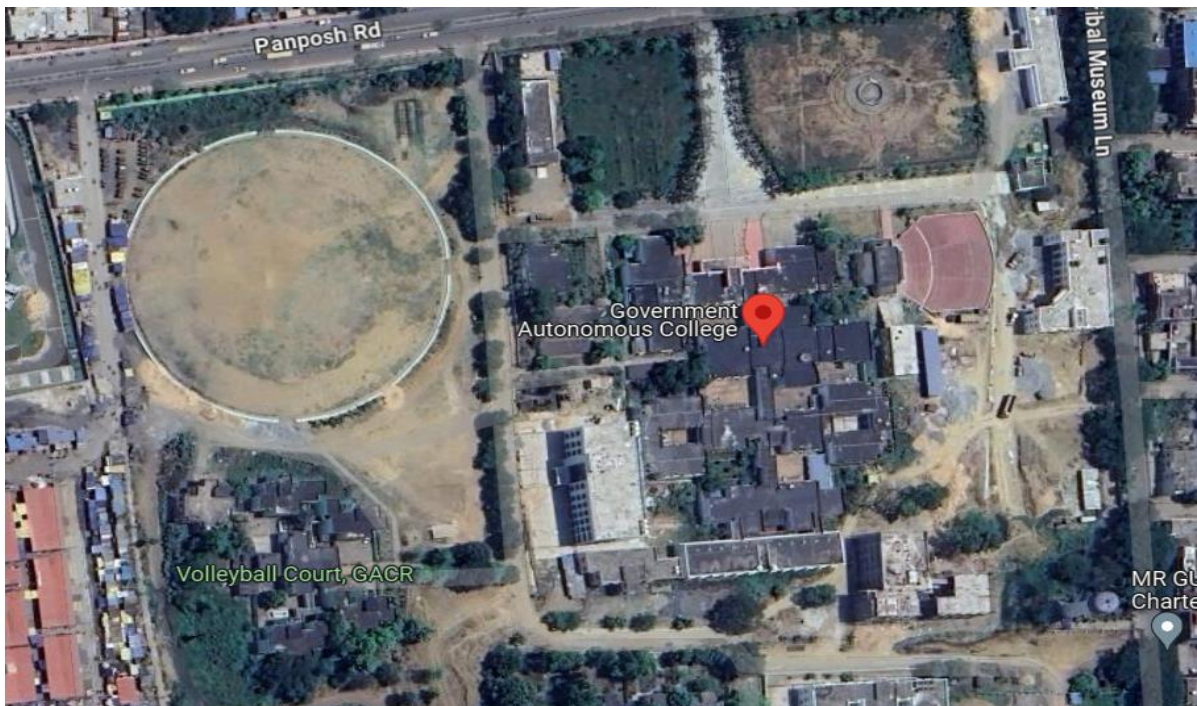
Computer lab



Canteen



Class room



**Geo Coordinates: 22.2263964, 84.8087946**





# AUDIT PARTICIPANTS

Name	Designation
<b>Dr. Bijaya Kumar Behera</b>	<i>Principal</i>
<b>Smt. Rameshwari Bhoi</b>	<i>Asst. Professor - Department of Political Science</i>
<b>Mr. Choudhury Pardosh Ranjan</b>	<i>Asst. Professor - Department of Political Science</i>
<b>Dr. Pratap Kumar Swain</b>	<i>Asst. Professor - Department of Chemistry</i>
<b>Dr. Smruti Snigdha Mishra</b>	<i>Asst. Professor - Department of Chemistry</i>
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<b>Dr. Bishwanath Parija</b>	<i>Asst. Professor - Department of Physics</i>
<b>Dr. Parbhudutta Mohanty</b>	<i>Asst. Professor - Department of Computer Science</i>
<b>Dr. Niranjana Sahu</b>	<i>Asst. Professor - Department of Physics</i>
<b>Mr. Prashant Kumar Sethi</b>	<i>Asst. Professor - Department of statistics</i>
<b>Dr. Abeg Jaiswal</b>	<i>Asst. Professor - Computer science</i>
<b>Dr. Sasmita Sasmal</b>	<i>Asst. Professor - Department of Chemistry</i>
<b>Ms. Usharani Sethi</b>	<i>Asst. Professor - Department of Commerce</i>
<b>Mrs. Gladys Beck</b>	<i>Asst. Professor - Department of Economics</i>
<b>Mrs. Anita Jain</b>	<i>Asst. Professor - Department of English</i>
<b>Mrs. Manisha Nayak</b>	<i>Asst. Professor – Department of Botany</i>

On behalf of EHS Alliance Services

Name	Position	Qualifications
Dr. Uday Pratap	Lead Auditor	<i>Ph.D., PDIS, QCI – WASH, Lead Auditor ISO 14001:2015</i>
Ms. Pooja Kaushik	Co-Auditor	<i>M.Sc., Field Expert, PGCCC, QCI – WASH</i>

# EXECUTIVE SUMMARY

The environment audit is a moment in time where the performance of the campus in terms of adhering to relevant environmental laws and regulations is evaluated. Even though the audit serves as a useful baseline, it almost instantly becomes outdated if no system is in place to keep track of environmental compliance. Our strategy to support a green campus is to instill sustainable value systems in students so they can apply what they have learned and carried with them into their future endeavors. This will guarantee that environmental and sustainable practices become ingrained in all of the nation's institutions and organizations. A Green Campus is a place where environmentally friendly practices and education combine to promote sustainability in the campus which ultimately offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of the mankind. This is the third environment audit of college for doing their bit 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.

# WASTE MANAGEMENT

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## TYPE OF WASTE ON COLLEGE CAMPUS

To create effective waste management plans, college first need to know the type of waste being generated at the campus. Below, we have compiled a list of various kinds of waste commonly generated on institutional campus:

1. **FOOD WASTE** - College campus generates food waste. The average mess and canteen generates approximately 12 kg of food waste a day. The reasons for food waste on an educational campus may be over purchasing food to ensure a sufficient supply and then throwing it away, especially in all hostel messes where plentiful stores are essential. And in the cafeteria or hostel mess, students may pile food onto their trays, find it unappealing once they sit down and dutifully scrape it into the garbage. Immediate attention is given to the food waste minimization techniques.
2. **RECYCLABLE PAPER, CARDBOARD, PLASTIC, GLASS AND CANS**  
- Campus tends to produce vast quantities of these recyclables. Even in the digital age, many students, professors and staff members still prefer handwritten notes and end up with piles of unwanted paper once their courses and projects are complete. And shipments of necessary items throughout the year are likely to arrive in recyclable plastic and cardboard packaging. The same is recycled through a paper recycling machine.
3. **STUDENT CLOTHES AND HOUSEWARES** - As we have mentioned above, many students find it more convenient to throw away their clothes and dorm furnishings at the end of the year than donate or recycle them. As we have mentioned above, many students find it more convenient to throw away their clothes and dorm furnishings at the end of the year than donate or recycle them. NSS, UBA and College regularly organize old clothes collection drives with NGO and organizations such as WWF-India.
4. **E-WASTE** - Electronics from students and faculties form a large portion of a campus's e-waste. As campus continually upgrade their computing facilities and office computers to keep up with the latest technology, the old computers have to go somewhere. So do old printers, phones, copy machines, and other electronics that have received upgrades over the years. Discarded student electronics often become part of a campus's waste stream as well. The college has well-established recycling programs and tie-ups with external agencies.



5. **CHEMICAL WASTE** - Chemical waste on a college campus may come from numerous sources. Campus laboratories generate waste chemicals, as do cleaning services. The detergents used in campus laundry rooms eventually become waste as well. Much of these chemical substances are hazardous waste under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and must undergo specific disposal processes according to state environmental rules and regulations. The Department of Chemistry conducts laboratory experiments with waste minimization techniques and processes.
6. **MAINTENANCE WASTE** - In the maintenance department, spent paints, solvents, adhesives and lubricants all form potentially hazardous waste. Because they are difficult to recycle, spent incandescent light bulbs usually become landfill waste. Spent fluorescent light bulbs, which contain small amounts of mercury, typically require special handling because of the environmental and health risks they pose.
7. **BIOLOGICAL WASTE** - Biological waste from laboratories will require special handling and disposal as per BMW Rules, 2016. Government Autonomous College has installed a number of furnaces to manage laboratory waste at different labs.
8. **FURNITURE** - Furniture waste on a college campus has a couple different sources. The campus itself may also get rid of old furniture as it modernizes its classrooms, cafeterias, computer labs and study spaces. Annually sold to junk dealer.
9. **BOOKS/MAGAZINES/NEWSPAPERS** - Books accounted for solid waste generation and institutions often generate tons of textbook waste. As courses upgrade to new editions, they may end up throwing their newly obsolete textbooks into the garbage if donation programs cannot use them. Students of Government Autonomous College donate their text books and notes to junior students, or else are auctioned to reseller. Various departments and societies of the college regularly hold old book collection drives in collaboration with various NGOs.
10. **C & D WASTE** - Expansion of campus building and renovation works result a significant amount of construction and demolition waste that should be either used for backfilling or disposed off through an authorized dumping site by CPCB/SPCB.
11. **SOLID WASTE** - The College is managing solid waste by providing via composting and waste sending to municipal corporations on daily basis for further disposal.
12. **HORTICULTURE WASTE** - The college campus has lavished greenery and grounds that result in significant horticulture waste which is managed by an in-house composting system.





# ENERGY CONSERVATION

1. List ten 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.

## A. Electricity

- Lights, Fans, Air conditioners
- Lab equipment
- Computers in labs, faculty rooms & offices
- Electrical Appliances in Pantry

## B. LPG

- Cafeteria and hostel mess

## Ways to use less energy

- Replacing the conventional bulbs to LEDs
- Use of natural light when possible
- Use large appliances together to reduce energy use.
- Cleaning of Filters on regular basis and replace them whenever needed.
- Turn off the switch on the socket after use.

2. Are there any energy-saving methods employed in your institute? If yes, please specify. If no, suggest some

- Electricity is saved by use of LED bulbs for illumination.
- In the Canteen, LPG is saved by use of pressure cookers for cooking food
- Switch off fans and lights when not in use
- Various energy conservation awareness programs for students and staff
- Keep the computers and ACs on power-saving mode.

3. How many CFL/LED bulbs has your institute installed?

Approx. 80 % of Total Conventional bulbs and tube lights are replaced by LED Lights.

4. Do you run “switch off” drills at the institute?

Yes

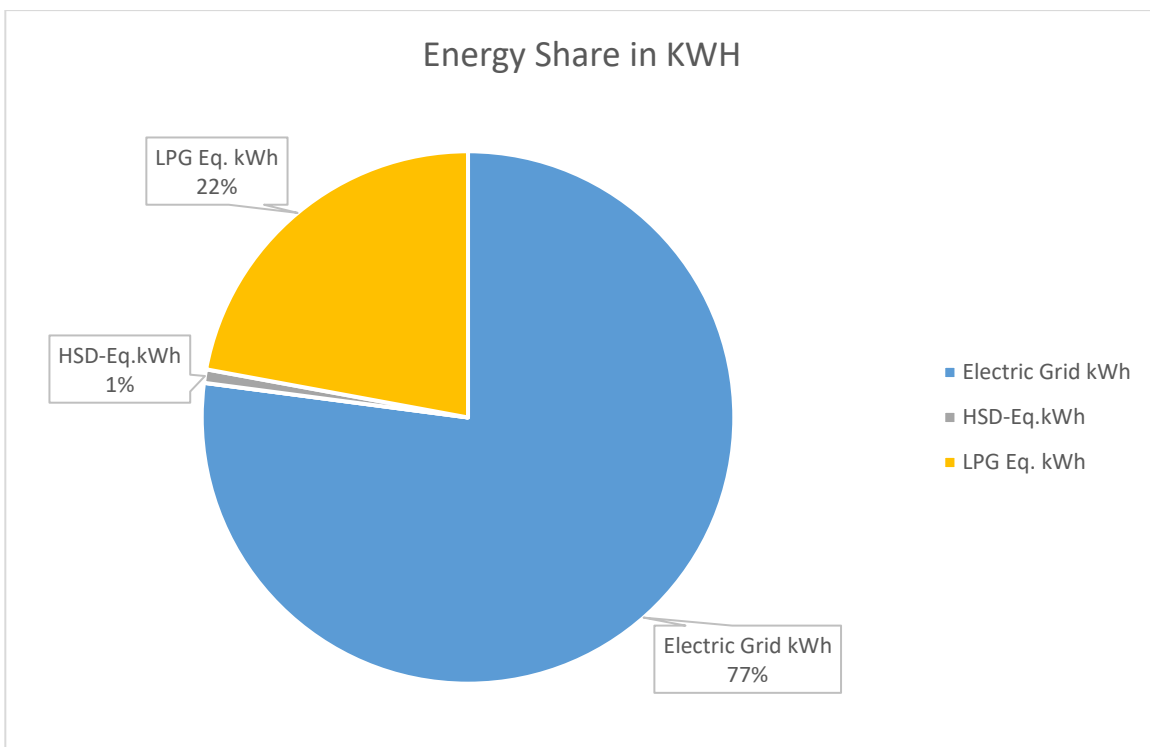
**5. Are your computers and other equipment put in power-saving mode?**

*Yes approximately 5-6 hours, also college switch off the mains*

**6. Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes most of the time? If yes, how many hours?**

*Yes, approx. 5-6 hours*

Energy Share	kWh	Percentage
Electric Grid kWh	139294.00	77.08%
Solar PV-kWh	0.00	0.00%
HSD-Eq. kWh	1479.60	0.82%
LPG Eq. kWh	39943.05	22.10%
<b>Total -kWh</b>	<b>180716.65</b>	<b>100%</b>





# WATER AND WASTEWATER MANAGEMENT

## 1. List uses of water in your institute

*Basic use of water in campus:*

**Drinking** – 96.36 KL/month

**Gardening** – 455.27 Kl/month

**Kitchen and Toilets** – 486.52 KL/month

**Others** – 44.36 KL/month

**Hostel** – 2494.80 KL/Month

**Total = 3577.30 KL/Month**

## 2 How does your institute store water? Are there any water saving techniques followed in your institute?

*College stores water in terrace tanks*

### **Saving Techniques**

- *Avoid overflow of water-controlled valves are provided in water supply system.*
- *Close supervision for the water supply system.*
- *Push taps are installed for water conservation*
- *Water Conservation awareness for new students*
- *Sprinklers usage for gardening and grass cover*

## 3. Locate the point of entry of water and point of exit of wastewater in your institute. (Entry and Exit)

*Entry - Water comes from Municipal Corporation and borewell*

*Exit- From Canteen, Toilets, Hostel, Bathrooms and Labs through covered drainage which is connected to municipal sewage*

## 4. Write down ways that could reduce the amount of water used in your institute

### **Basic ways:**

- *Close the taps after usage*
- *Water Conservation awareness for new students*
- *Maintenance and monitoring of valves in the supply system to avoid overflow, leakage and spillage*
- *Sensor-based taps and push tap are installed to save water*
- *Push taps are installed to save water*





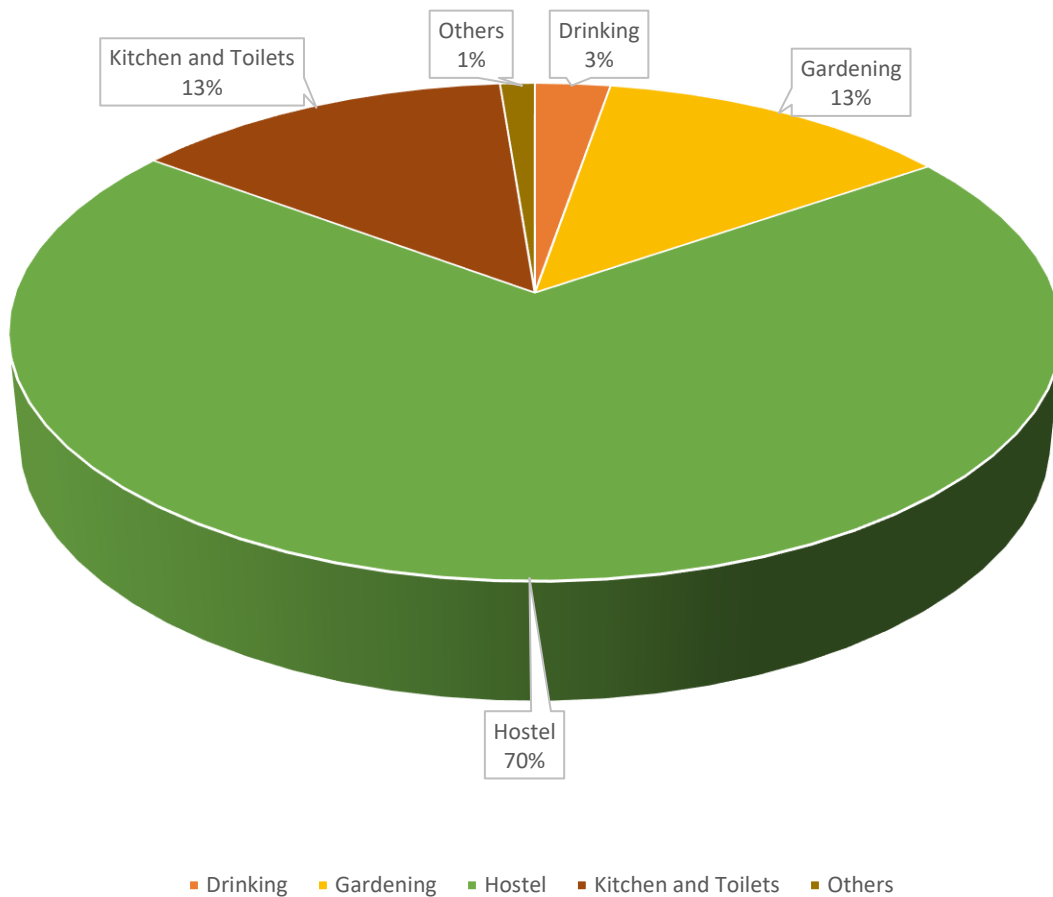
### 5. Does your institute harvest rainwater?

College is collecting rain water in a natural pond which collects rainwater

### 6. Is there any water recycling System?

No

Water Consumption (KL per Month)





# AIR QUALITY MANAGEMENT

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## 1. Are the Rooms in Campus Well Ventilated?

*Yes, as per National Building Code, guidelines*

## 2. Window Floor ratio of the Rooms?

*Very Good, ample daylight utilization because of big windows.*

## 3. What is the ownership of the vehicles used by your campus?

*There are no college owned vehicles.*

## 4. Provide details of Institute-owned vehicles?

*NA*

## 5. PUC done?

*NA*

## 6. Specify the type of fuel used by your campus's vehicles

*NA*

## 8. Air Quality Monitoring Program (If, Any)

*No*

# ENVIRONMENT LEGISLATIVE COMPLIANCE

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## 1. Are you aware of any environmental Laws Pertaining to different aspects of environmental management?

*Yes, College follows following laws pertaining to different aspects of environmental management*

- 1) Segregation and recycling of Waste (Solid Waste Management Rules 2016)*
- 2) Protection of trees on campus (National Green Tribunal Act,10)*
- 3) Reduce single use of plastic, and recycling of plastic (Plastic Waste Management Rules, 2016)*
- 4) Recycling of electronic waste (e-waste Management and Handling Rules 2011)*



## 2. Does your institute have any rules to protect the environment? List possible rules you could include.

- *Periodic Plantation drives are conducted throughout the academic year.*
- *Ban on single-use plastic.*
- *Biodegradable waste management through the Composting unit.*
- *Water and energy conservation posters are displayed on the notice boards and in the classrooms for general awareness amongst the students and faculty.*
- *In addition, college regularly organizes various activities to raise awareness towards water and energy conservation.*

## 3. Does Environmental Ambient Air Quality Monitoring conducted by the Institute?

No

## 4. Does Environmental Water and Wastewater Quality monitoring conducted by the Institute?

No

## 5. Does stack monitoring of DG sets conducted by the Institute?

No

## 6. Is any warning notice, or letter issued by state government bodies?

No

## 7. Does any Hazardous waste generated by the Institute?

No

# GENERAL INFORMATION

## 1. Does your institute have any rules to protect the environment? List possible rules you could include.

- *Periodic Plantation drive*
- *Ban on single-use plastic*
- *Biodegradable waste management through Composting and bio gas plant*
- *Water and energy conservation through posters*

## 2. Are students and faculties aware of environmental cleanliness ways? If Yes Explain



*Yes. Government Autonomous College creates awareness through ECO Club activities, Webinars, and cleanliness drives in the community.*

### 3. Does Important Days Like World Environment Day, Earth Day, and Ozone Day etc. eminent in Campus?

*Yes. Important national and international days such as World Environment Day, Ozone Day, Earth Day, World water day, World wetland Day, Earth hour and more are celebrated by students and faculty within the campus.*

### 4. Does Institute participate in National and Local Environmental Protection Movement?

*Yes, college participated in different activities*

### 5. Does Institute have any Recognition or certification for environment friendliness?

➤ No

### 7. Does the Institution conduct a green or environmental audit of its campus?

*This is the third external audit carried out by the college.*

## INITIATIVES CARRIED OUT BY COLLEGE

#### ➤ Solid Waste Management

- College does compost for horticulture waste
- Biogas plant is installed for food waste management
- Reduce the use of paper by supporting the digitization of attendance and internal assessment records.
- Reduce the requirement of printed books by updating the e-books and e-journals collection of the college library.
- Take initiatives to spread awareness amongst students about food wastage and ways of minimizing it
- The habit of reusing and recycling non-biodegradable products
- Organizing workshops for students on solid waste management.
- There is a ban on single-use plastic and plastic crockery in the campus.

#### ➤ Liquid Waste Management

- Maintain leakproof water fixtures.
- Urinals are installed in boys washroom to reduce water wastage
- Minimize the use of water by constructing more Indian-style toilets instead of Western-style toilets.



- Continued employment of a caretaker to take immediate steps to stop any water leakage through taps, pipes, tanks, toilet flush etc.
- Reuse of wastewater generated by the Reverse Osmosis (RO) system in washrooms.
- **E-waste Management**
  - College has a separate storeroom for the safe storage of electronic waste. After a certain interval of time college disposes of the E-waste to concerned agencies through the auction process.
- **Rain water harvesting**
  - College has rainwater harvesting pond for better groundwater recharge.
- **Air Pollution Reduction**
  - Personal Vehicles (Students) are not allowed in the campus

## RECOMMENDATIONS

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- Eco-friendly parameters should be included in the purchase of articles and goods for the campus.
- Car-pooling practices can be adopted by campus to minimise air pollution.
- The periodic maintenance schedule for DG set and Ac to achieve optimised efficiencies.
- Environmental Monitoring i.e. Stack Monitoring of DG sets, Water monitoring, air quality monitoring need to be conducted periodically (as per SPCB).
- Agreements with third-party authorized vendors should be made for different types of waste management, such as BMW, paper waste, Plastic waste, etc.
- Reduce carbon emissions by reducing LPG and diesel consumption
- Water metering records should be in practice for water auditing and balancing.
- Borewell permission should be taken from CGWA.





# CONCLUSION

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This audit involved extensive consultation with all the campus team, interactions with key personnel on a wide range of issues related to environmental aspects. Overall, 70% of college campus is for landscaping. Government Autonomous College is dedicated to promote the environment management and conservation in the campus and community. The audit has identified some suggestions for making the campus premise more environment friendly. The recommendations and suggestions are mentioned for campus to initiate actions.

The audit team opines that the overall site is well-maintained from environmental perspective. The recommendations in this report highlight many ways in which the college can work to improve its actions and become a more sustainable institution.

# REFERENCES

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- **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 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**



# ANNEXURE I – ENVIRONMENTAL RECOGNITION AND COMPLIANCE

(Health & Family Welfare Department)  
 Food Safety and Standard Authority of India  
 OFFICE OF THE CHIEF DISTRICT MEDICAL OFFICER :  
 ROURKELA MUNICIPAL CORPORATION




Registration Certificate-RC  
 (See Regulation 2.1.1(5))  
 Food License Under FSS Act,2006  
 Registration No. 22019036000414

1. Name and permanent address of Food Business Operator (FBO)	ALEENA RESTAURANT YASIN MARKET COMPLEX, OLD OUT STATION ROAD, BACK SIDE OF BIG BAZAAR, DARGAHI MOHALLAH, Raurkela (M), Ward 1, ROURKELA MUNICIPAL CORPORATION (Orissa), - 769001	
2. Address of location where food business is to be conducted / premises	YASIN MARKET COMPLEX, OLD OUT STATION ROAD, BACK SIDE OF BIG BAZAAR, DARGAHI MOHALLAH, Raurkela (M), Ward 1, ROURKELA MUNICIPAL CORPORATION (Orissa), - 769001	
3. Kind of Business	Food vending establishment	
4. Photo Identity Card	Aadhaar Card	

This Registration is granted under and is subject to the provisions of FSS Act, 2006 all of which must be complied with by the Food Business Operator(FBO).



Place : ROURKELA MUNICIPAL CORPORATION  
 Date of Issue : 24/10/2019  
 Period of Validity : 16/10/2020

Designated officer/Food Safety Officer

## ANNEXURE II – PHOTOGRAPHS OF ENVIRONMENTAL INITIATIVES



Paved flooring



Rainwater storage tank



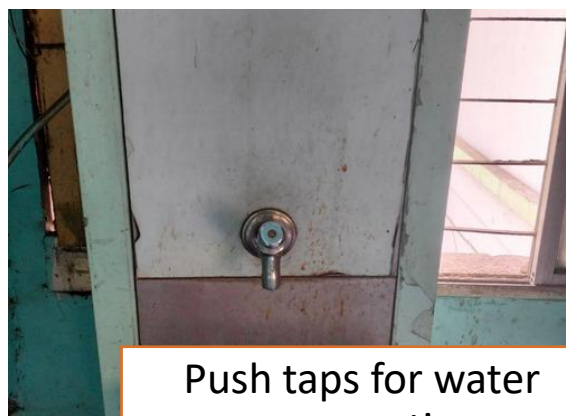
Color coded Dustbin



Ornamental Plants



Indoor plants



Push taps for water conservation





Generator



5-Star ACs



Sports ground



Plantation Drive



Urinals to save water



Projector room

o

\*\*\*\*\* END OF THE REPORT \*\*\*\*\*



ସରକାରୀ ସ୍ୱୟଂଶାସିତ ମହାବିଦ୍ୟାଳୟ, ରାଉରକେଲା  
GOVERNMENT AUTONOMOUS COLLEGE, ROURKELA  
Sundargarh, Raghunathpali, Rourkela, Odisha



**GOVERNMENT AUTONOMOUS COLLEGE**

# ENVIRONMENT AUDIT REPORT

2022 - 2023

PREPARED BY  
EHS ALLIANCE SERVICES





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# CERTIFICATE



# CERTIFICATE

PRESENTED TO

## GOVERNMENT AUTONOMOUS COLLEGE

Raghunathpali, Rourkela, Odisha 769004

Has been assessed by EHS Alliance Services for the comprehensive study of environmental impacts on institutional working framework to fulfill the requirement of

## ENVIRONMENT AUDIT

**ACADEMIC YEAR 2022-23**

The environment legal compliances and initiatives carried out by the institution have been verified on the report submitted and were found to be satisfactory.

The efforts taken by management and faculty towards environment and sustainability are highly appreciated and noteworthy.

SIGNATURE



14.07.2023

DATE OF AUDIT



# ACKNOWLEDGEMENT

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EHS Alliance Services would like to thank the management of Government Autonomous College for assigning this important work of Environment Audit. We appreciate the co-operation to the teams for completion of assessment.

We would also like to thank ***Smt. Rameshwari Bhoi (Asst. Professor - Department of Political Science) – Audit Coordinator***, for her Continuous Support and guidance, without which the completion of the project would not have been possible. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

We are also thankful to

***Dr. Lichita Patro Asst. Professor - Department of Botany***

***Dr. Pratap Kumar Swain Asst. Professor - Department of Chemistry***

***Mr. C. P. Ranjan Asst. Professor - Department of Political Science***

Last but not the least, we would like to thank ***Dr. Bijaya Kumar Behera - Principal*** for giving us an opportunity to evaluate the environmental performance of the campus.



# DISCLAIMER

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EHS Alliance Services Audit Team has prepared this report for Government Autonomous College based on input data submitted by the representatives of college complemented with the best judgment capacity of the expert team.

While all sensible care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

If you wish to distribute copies of this report external to your organisation, then all pages must be included.

EHS Alliance, its staff and agents shall keep confidential all information relating to your organisation and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies.

EHS Alliance staff, agents and accreditation bodies have signed individual confidentiality undertakings and will only receive confidential information on a 'need to know' basis.

Signature

LEAD AUDITOR



# CONCEPT AND CONTEXT

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In India, the process for environmental audit was first mentioned under the Environment Protection Act, 1986 by the Ministry of Environment of forests on 13th march, 1992. As per this act, every person owning an industry or performing an operation or process needs a legal consent and must submit an environmental report or statement.

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2019–20 onwards that all Higher Educational Institutions should submit an annual Green, Environment and Energy Audit Report. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the sustainable environment.

In view of the NAAC circular regarding environment auditing, the College management decided to conduct an external environment assessment study by a competent external professional auditor.

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 Environment 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.”

This audit focuses on the environment legal compliances and implementation of rules defined by MoEFCC or state pollution control board. The concepts, structure, objectives, methodology, tools of analysis, and objectives of the audit are discussed below.



# INTRODUCTION

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Nature is very precious gift for all life forms. Disturbance in the nature causes environmental Problems. These are increasing day by day as a result of development of urbanization and industrialization on earth. Because of unplanned utilization of resources, our planet is facing tremendous pressure results a sharp rise in temperature. Therefore, there is an urgent need to plan the consumption of the resources in sustainable manner in order to conserve natural resources for future generation.

Sustainable development is becoming popular in the world for saving the earth. Utilizing resources judiciously can save the earth's precious resources. Measurement of environmental components is the most effective step to conserve and protect natural resources.

Environmental auditing had begun in the early 1970s with provision of civil lawsuits for non-compliance with environmental regulations. Environment auditing involves on site visit, collection of samples, performing analyses, and report results to competent authorities.

Industry, the corporate world is initiating auditing for saving natural resources. Academic institutions also can contribute to the preservation and conservation of resources within their premises.

In this, "Environment Audit" report would help everyone to think about preserving resources, show willingness to learn their importance, adopt steps to minimize resource use and set an example for others to follow the path of eco-friendly practices to achieve the goal of sustainable development. Effective implementation of environmental auditing helps in minimization of environmental risks at low cost.





# OVERVIEW OF THE COLLEGE

The College started as Rourkela Science College from 16th August, 1961 and was taken over by Government Odisha on 01-07-1963. With the vertical academic growth of the College was conferred with autonomous status in 2002. In the year 2002 the College was accredited by NACC with Grade-B. The College offer variety of Courses at different levels. Besides Art, Science and Commerce at Higher Secondary and Degree levels the College also offers Master Degree in 17 subjects and M. Phil in 03 subjects i.e. Botany, English and Odia. M. Sc in Computer Science, Master in Commerce, Degree Courses in Computer Science, Electronics and Tele-Communication (ETC), Mathematics with Computer (MTC), PGDCA, PGDCH come under Self-finance courses. The College also offers various Degree and P. G. level Courses under Odisha State Open University. The College has been also provided separate Rooms for IGNOU Study Centre. As per the Circular of the Department of Higher Education Government of Odisha the College now stands Bi-furcate in to the Government Autonomous College, Rourkela with effect from Academic Session 2001-2002. Ironically the number of staff both teaching and non-teaching have gone-down after it was Autonomous. There by the Classes are engaged by Guest faculty who are engaged time to time.





The College has not received any UGC grant for last three years. Remuneration for non-teaching is paid from the fee collected from the students, as there is no special grant for the Government for this purpose. This has been a hindrance in achieving our mission of academic excellence to make this premier Institute, a centre of quality learning by training the students to be creative and competitive enough to face the challenges of the new millennium.

## MISSION & VISION

### **MISSION**

To achieve Academic Excellence by giving impetus and adapting to measures for Enhancing Effective Quality Sustenance and Progression on all key facets of Education. Providing a Dynamic and Conducive Environment for all in order to Inculcate, Infuse, Imbibe, Equip and Disseminate Value Oriented Learning, Creativity, Innovation, Societal Consciousness to achieve Sustainable Livelihood.

### **VISION**

To achieve Academic Excellence by giving impetus and adapting to measures for Enhancing Effective Quality Sustenance and Progression on all key facets of Education. Providing a Dynamic and Conducive Environment for all in order to Inculcate, Infuse, Imbibe, Equip and Disseminate Value Oriented Learning, Creativity, Innovation, Societal Consciousness to achieve Sustainable Livelihood.

## Facilities in the campus

Amenities at Government Autonomous College provide far more than academic and administrative facilities on campus. It is dedicated to provide students with an exceptional infrastructure for learning as well as facilities for simplifying the procurement of fundamental skills. To accomplish the goal, Government Autonomous College offers the following :

**GREEN CAMPUS:** The Institute has an impressive and pollution-free campus with panoramic green surroundings, elegant landscaping and beautiful flowerbeds.

**SPORTS ACTIVITIES:** Spending quality time is never a problem in the Institute. Evenings find students enjoying the pleasure of these sports as players and audience.



**MESS:** The institute has its huge mess, which serves healthy and nutritious cuisines to its students.

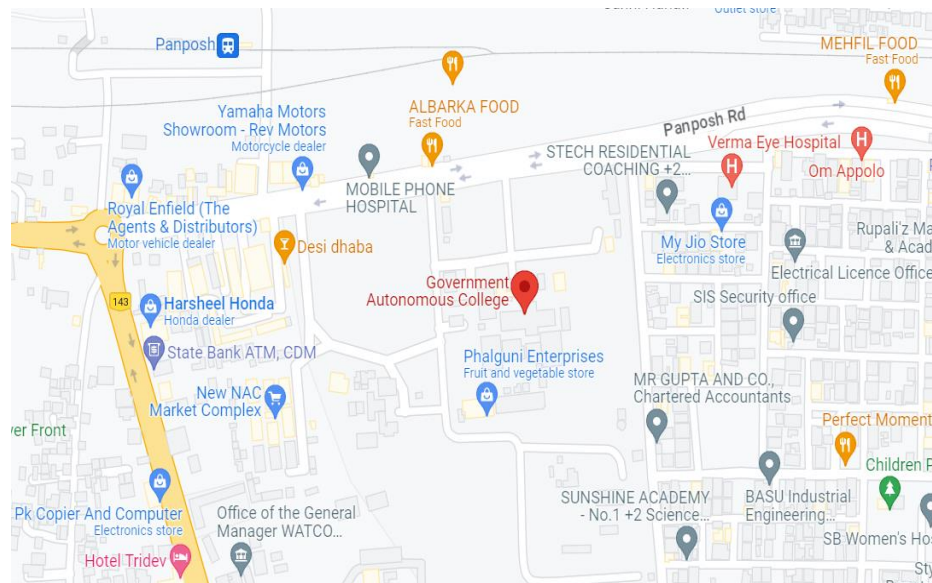
**CANTEEN:** The institute has its own canteen, which serves healthy and nutritious food to its students at subsidized rates. The menu varies from spicy samosas, wafers to full-meals.



CAFETERIA

AUDITORIUM

Geo Location  
Geo Coordinates from Google maps:  
22.2263719, 84.8062211







# AUDIT PARTICIPANTS

On behalf of college

Name	Designation
Dr. Bijaya Kumar Behera	<i>Principal</i>
Smt. Rameshwari Bhoi	<i>Asst. Professor - Department of Political Science</i>
Mr. Choudhury Pardosh Ranjan	<i>Asst. Professor - Department of Political Science ( IQAC Coordinator)</i>
Dr. Smruti Snigdha Mishra	<i>Asst. Professor - Department of Chemistry</i>
Mr. Sameer Saurava Prusty	<i>Asst. Professor - Department of Zoology</i>
Dr. Pratap Kumar Swain	<i>Asst. Professor - Department of Chemistry</i>
Dr. Bishwanath Parija	<i>Asst. Professor - Department of Physics</i>
Dr. Parbhudutta Mohanty	<i>Asst. Professor - Department of Computer Science</i>
Dr. Niranjan Sahu	<i>Asst. Professor - Department of Physics</i>
Dr. Lichita Patro	<i>Asst. Professor - Department of Botany</i>
Mr. Prashant Kumar Sethi	<i>Asst. Professor - Department of Botany</i>
Dr. Abeg Jaiswal	<i>Asst. Professor - Department of Statistics</i>
Mr. C. P. Ranjan	<i>Asst. Professor - Department of Political Science</i>
Dr. Sasmita Samal	<i>Asst. Professor - Department of Chemistry</i>
Ms. Usharani Sethi	<i>Asst. Professor - Department of Commerce</i>
Dr. Bijaya Kumar Behera	<i>Principal</i>
Smt. Rameshwari Bhoi	<i>Asst. Professor - Department of Political Science</i>
Mr. Choudhury Pardosh Ranjan	<i>Asst. Professor - Department of Political Science ( IQAC Coordinator)</i>

On behalf of EHS Alliance Services

Name	Position	Qualifications
Dr. Uday Pratap	Lead Auditor	<i>Ph.D. , PDIS, QCI – WASH, Lead Auditor ISO 14001:2015</i>
Ms. Pooja Kaushik	Co-Auditor	<i>M.Sc., Field Expert, QCI – WASH</i>

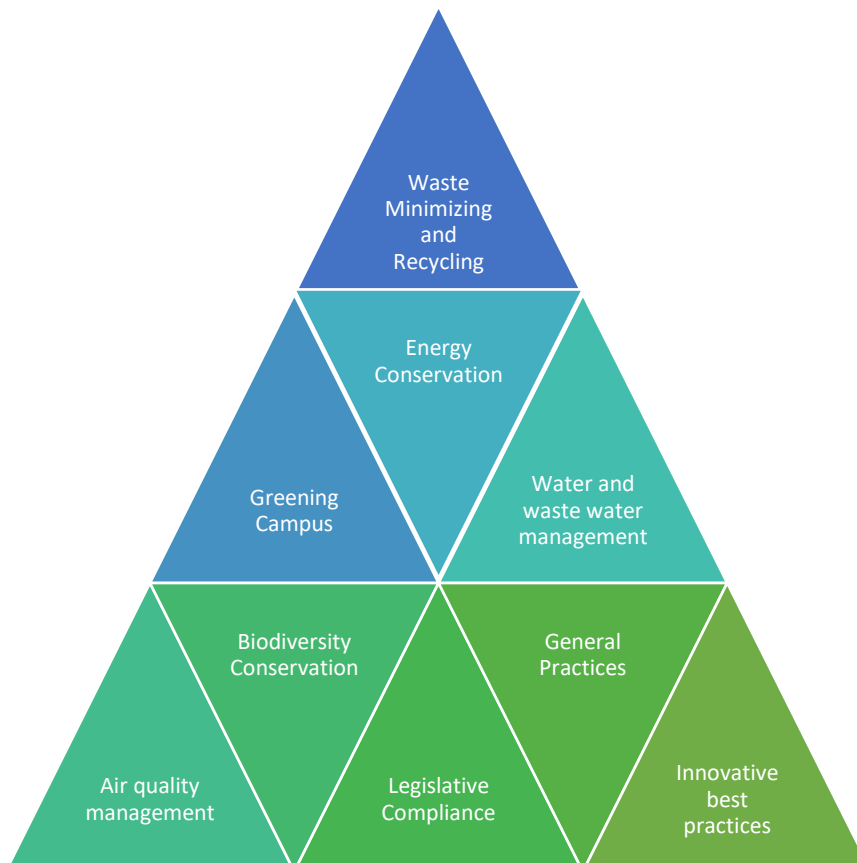


# EXECUTIVE SUMMARY

The environment 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 out-dated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. Our approach to promote a Green Campus to inculcate the sustainable value systems among the students, so that they carry the learning and practices them in their future endeavours. This will ensure that Sustainability and Environmental practices get embedded in all the institutions and organizations in the country.

A Green Campus is a place where environmentally friendly practices and education combine to promote sustainability in the campus which ultimately offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of the mankind.

This is the second environment audit of college for doing their bit 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.





# WASTE MANAGEMENT

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## TYPE OF WASTE ON COLLEGE CAMPUS

To create effective waste management plans, college first need to know the type of waste being generated at the campus. Below, we have compiled a list of various kinds of waste commonly generated on institutional campus:

1. **FOOD WASTE** - College campus generates food waste. The average mess and canteen generates approximately 15 kg of food waste a day. The reasons for food waste on an educational campus may be over purchasing food to ensure a sufficient supply and then throwing it away, especially in all hostel messes where plentiful stores are essential. And in the cafeteria or hostel mess, students may pile food onto their trays, find it unappealing once they sit down and dutifully scrape it into the garbage. Immediate attention is given to the food waste minimization techniques.
2. **RECYCLABLE PAPER, CARDBOARD, PLASTIC, GLASS AND CANS** - Campus tends to produce vast quantities of these recyclables. Even in the digital age, many students, professors and staff members still prefer handwritten notes and end up with piles of unwanted paper once their courses and projects are complete. And shipments of necessary items throughout the year are likely to arrive in recyclable plastic and cardboard packaging. The same is sold/auctioned to the scrap vendors time to time.
3. **STUDENT CLOTHES AND HOUSEWARES** - As we have mentioned above, many students find it more convenient to throw away their clothes and dorm furnishings at the end of the year than donate or recycle them.
4. **E-WASTE** - Student and facility electronics often form a large portion of a campus's waste — As campus continually upgrade their computing facilities and office computers to keep up with the latest technology, the old computers have to go somewhere. So do old printers, phones, copy machines and other electronics that receive upgrades over the years. Discarded student electronics often become part of a campus's waste stream as well.
5. **CHEMICAL WASTE** - Chemical waste on a college campus may come from numerous sources. Campus laboratories generate waste chemicals, as do cleaning services. The detergents used in campus laundry rooms eventually become waste as well. Much of these chemical substances are hazardous waste under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and must undergo specific disposal processes according to state environmental rules and regulations.



6. **MAINTENANCE WASTE** - In the maintenance department, spent paints, solvents, adhesives and lubricants all form potentially hazardous waste. Because they are difficult to recycle, spent incandescent light bulbs usually become landfill waste. Spent fluorescent light bulbs, which contain small amounts of mercury, typically require special handling because of the environmental and health risks they pose.
7. **BIOLOGICAL WASTE** - Biological waste from laboratories will require special handling and disposal as per BMW Rules, 2016. Government Autonomous College has installed number of furnace to manage lab's waste at different labs.
8. **FURNITURE** - Furniture waste on a college campus has a couple different sources. The campus itself may also get rid of old furniture as it modernizes its classrooms, cafeterias, computer labs and study spaces. Annually sold to junk dealer.
9. **BOOKS/MAGAZINES/NEWSPAPERS** - Books accounted for solid waste generation and institutions often generate tons of textbook waste. As courses upgrade to new editions, they may end up throwing their newly obsolete textbooks into the garbage if donation programs cannot use them. Students of Government Autonomous College donates their text books and notes to junior students, or else are auctioned to reseller.
10. **C & D WASTE** - Expansion of campus building and renovation works result significant amount of construction and demolition waste that should be either used for back filling or disposed off through authorised dumping site by CPCB/SPCB.
11. **SOLID WASTE** - The College is managing solid waste by providing via composting and bio gas plant.
12. **HORTICULTURE WASTE** – College campus has lavished greenery and grounds that results significant horticulture waste which is managed by in-house composting system.



# ENERGY CONSERVATION

1. List ten 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.

## A. Electricity

- Lights, Fans, Air conditioners
- Lab equipment
- Computers in labs, faculty rooms & offices
- Electrical Appliances in Pantry

## B. LPG

- Cafeteria and hostel mess

## Ways to use less energy

- Replacing the conventional bulbs to LEDs
- Use of natural light when possible
- Use large appliances together to reduce energy use.
- Cleaning of Filters on regular basis and replace them whenever needed.
- Sealing cracks and gaps and leaks and adding insulation which leads to saving energy up to 10% on heating and cooling.
- Insulate the room spaces
- Turn off the switch on the socket after use.

2. Are there any energy saving methods employed in your institute? If yes, please specify. If no, suggest some

- Electricity is saved by use of LED bulbs for illumination.
- In Canteen, LPG is saved by use of pressure cookers for cooking food but in pandemic time, canteen was non-operational.
- Switch off fans and lights when not in use
- Various energy conservation awareness programs for students and staff
- Keep the computers and ACs on power saving mode.

3. How many CFL/LED bulbs has your institute installed?

Approx 80 % of Total Conventional bulbs and tube lights are replaced by LED Lights.

4. Do you run “switch off” drills at institute?

Yes

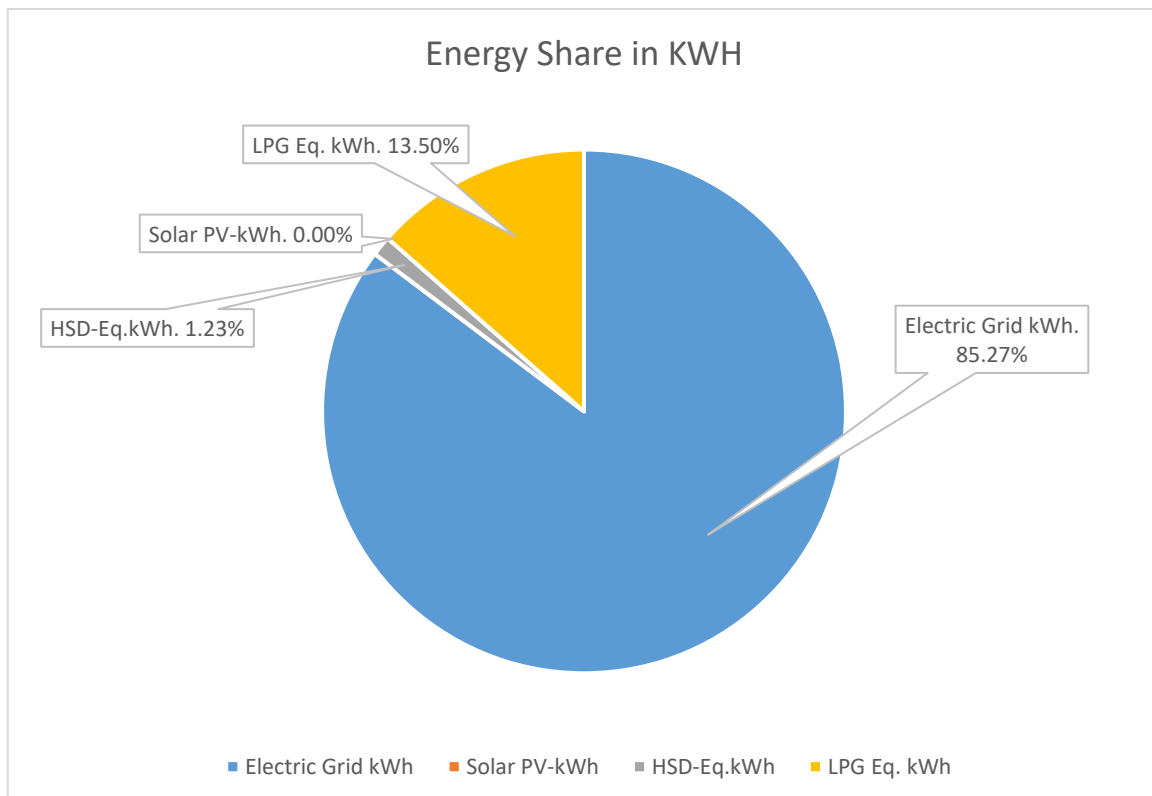
**5. Are your computers and other equipment's put on power-saving mode?**

Yes

**6. Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes most of the time? If yes, how many hours?**

Yes, In office hours

Energy Share	kWh	Percentage
Electric Grid kWh	107806.97	85.27%
Solar PV-kWh	0.00	0.00%
HSD-Eq. kWh	1556.32	1.23%
LPG Eq. kWh	17066.10	13.50%
Total -kWh	126429.39	100%







# WATER AND WASTEWATER MANAGEMENT

## 1. List uses of water in your institute

*Basic use of water in campus:*

**Drinking** – 59.18 KL/month

**Gardening** – 509.90 Kl/month

**Kitchen and Toilets** – 455.96 KL/month

**Others** – 151.56 KL/month

**Hostel** – 1876.50 KL/Month

**Total = 3053.10 KL/Month**

## 2 How does your institute store water? Are there any water-saving techniques followed in your institute?

*The available total water storage of the college is tanks on the terrace.*

- *Avoid overflow of water-controlled valves provided in the water supply system.*
- *Close supervision of the water supply system.*
- *Sensor-based taps are installed*
- *Water Conservation awareness for new students*
- *Sprinklers usage for gardening and grass cover*

## 3. Locate the point of entry of water and point of exit of wastewater in your institute. (Entry and Exit)

*Entry - Water comes from Municipal Corporation and Borewell*

*Exit- From Canteen, Toilets, Hostel, Bathrooms, and Labs through covered drainage which is connected to the sewer, and treated water is used for gardening purposes*

#### 4. Write down ways that could reduce the amount of water used in your institute

**Basic ways:**

- Close the taps after usage
- Water Conservation awareness for new students
- Maintenance and monitoring of valves in supply system to avoid overflow, leakage and spillage
- Sensor based taps and push tap are installed to save water

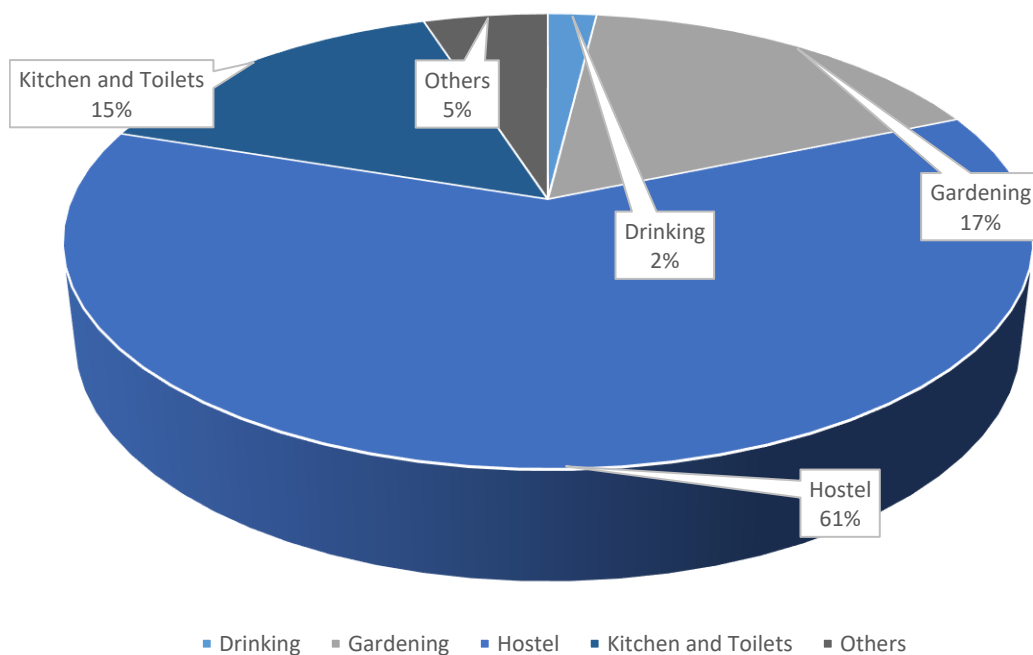
#### 5. Does your institute harvest rainwater?

The college has three rainwater storage tanks for better water conservation. The stored water in this tank can be used for gardening purposes

#### 6. Is there any water recycling System?

No

Water Consumption (KL per Month)





# AIR QUALITY MANAGEMENT

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## 1. Are the Rooms in Campus Well Ventilated?

*Yes, as per National Building Code, guidelines*

## 2. Window Floor ratio of the Rooms?

*Very Good, ample daylight utilization because of big windows.*

## 3. What is the ownership of the vehicles used by your campus?

*There are no college owned vehicles*

## 4. Provide details of Institute-owned vehicles?

*NA*

## 5. PUC done?

*NA*

## 6. Specify the type of fuel used by your campus's vehicles

*NA*

## 8. Air Quality Monitoring Program (If, Any)

*No*



# ENVIRONMENT LEGISLATIVE COMPLAIANCE

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**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.**

*Yes, Government Autonomous College's- Eco club is conscious about the environment protection and takes proper measures in terms of awareness campaigns, activities, webinar, seminars, etc.*

**3. Does Environmental Ambient Air Quality Monitoring conducted by the Institute?**

No

**4. Does Environmental Water and Waste water Quality monitoring conducted by the Institute?**

No

**5. Does stack monitoring of DG sets conducted by the Institute?**

No

**6. Is any warning notice, letter issued by state government bodies?**

No

**7. Does any Hazardous waste generated by the Institute?**

No



# GENERAL INFORMATION

## 1. Does your institute have any rules to protect the environment? List possible rules you could include.

- *Periodic Plantation drive*
- *Ban on single use plastic*
- *Biodegradable waste management through Composting*
- *Water and energy conservation through posters*

## 2. Are students and faculties aware of environmental cleanliness ways? If Yes Explain

*Yes. Government Autonomous College creates awareness through ECO Club activities, Webinars, cleanliness drives in the community.*

## 3. Does Important Days Like World Environment Day, Earth Day, and Ozone Day etc. eminent in Campus?

*Yes, World Environment Day, Ozone Day, Earth Day, World water day, World wetland Day, Earth hour and more are celebrated by campus.*

## 4. Does Institute participate in National and Local Environmental Protection Movement?

*Yes*

## 5. Does Institute have any Recognition or certification for environment friendliness?

*Certificates added in annexure*

## 7. Does Institution conduct a green or environmental audit of its campus?

*This is the second external audit carried out by the college.*



# INITIATIVES CARRIED OUT BY COLLEGE

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## ➤ **Solid Waste Management**

- Systematically engage with the 3Rs of environment friendliness (Reduce, Reuse and Recycle).
- Collect paper waste produced on campus and collaborate with scrap dealers for recycling.
- Reduce use of paper by supporting digitization of attendance and internal assessment records.
- Reduce requirement of printed books by updating the e-books and e-journals collection of the college library.
- Take initiatives to spread awareness amongst students about food wastage and ways of minimizing it
- The habit of reusing and recycling non-biodegradable products
- Organizing workshops for students on solid waste management.
- There is ban on single use plastic and plastic crockery in the campus.
- College has installed incinerator as per CPCB guidelines for the management of sanitary waste -As per Solid Waste Management Rules, 2016

## ➤ **Liquid Waste Management**

- Maintain leak proof water fixtures.
- Minimize the use of water by constructing more Indian style toilets instead of western style toilets.
- Continued employment of a caretaker to take immediate steps to stop any water leakage through taps, pipes, tanks, toilet flush etc.
- Reuse of wastewater generated by the Reverse Osmosis (RO) system in washrooms.

## ➤ **E-waste Management**

- College has a separate storeroom for the safe storage of electronic waste. After a certain interval of time college disposes of the E-waste to concerned agencies through the auction process.

## ➤ **Rain water harvesting**

- The central area of the new building of college has a rainwater harvesting system for better groundwater recharge. The stored water in this tank can be used for gardening purposes.

## ➤ **Air Pollution Reduction**

- Personal Vehicles (Students) are not allowed in the campus





## RECOMMENDATIONS

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- Eco-friendly parameters should be included in the purchase of articles and goods for the campus.
- Car-pooling practices can be adopted by campus to minimise air pollution.
- The periodic maintenance schedule for equipment such as AC, cooler, Geyser, pump, etc to achieve optimised efficiencies.
- Environmental Monitoring i.e. Stack Monitoring of DG sets, Water monitoring, air quality monitoring need to be conducted periodically (as per SPCB).
- Agreement with third party authorised vendors should be done for different types of waste management, such as paper waste, Plastic waste, e-waste, etc.
- Reduce carbon emission by reducing the LPG and diesel consumption
- Initiate the use of solar geysers in hostel
- Initiate solar PV of 40kW to reduce carbon footprints
- Water metering records should be in practice for water auditing and balancing.
- Borewell permission should be taken from CGWA.

## CONCLUSION

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This audit involved extensive consultation with all the campus team, interactions with key personnel on a wide range of issues related to environmental aspects. Overall, 70% of college campus is for landscaping. Government Autonomous College is dedicated to promote the environment management and conservation in the campus and community. The audit has identified some suggestions for making the campus premise more environment friendly. The recommendations and suggestions are mentioned for campus to initiate actions.

The audit team opines that the overall site is well-maintained from environmental perspective. The recommendations in this report highlight many ways in which the college can work to improve its actions and become a more sustainable institution.



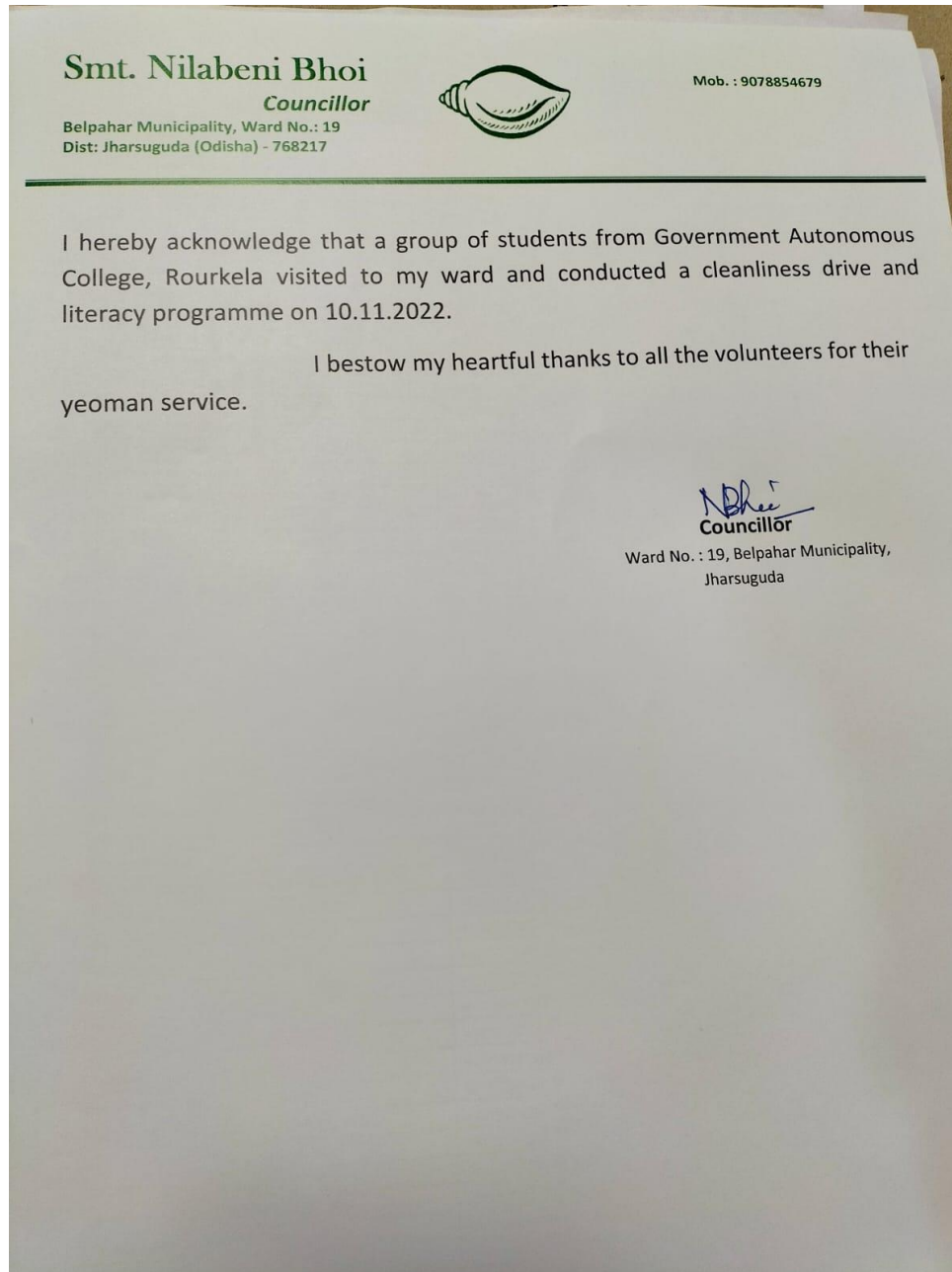
# REFERENCES

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- **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 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**



# ANNEXURE I – ENVIRONMENTAL RECOGNITION AND COMPLIANCE



*Certificate from local councillor*



10/26/2019 Gmail - Registration Certificate Generated - FSSAI Food Licensing & Registration System  
Md sazzad <msbaziz7@gmail.com>

**Registration Certificate Generated - FSSAI Food Licensing & Registration System**  
1 message  
licensing@fssai.gov.in <licensing@fssai.gov.in>  
To: msbaziz7@gmail.com  
Sat, Oct 26, 2019 at 11:02 AM

Dear Md sazzad bin aziz,  
FSS Registration Certificate - 22019036000414 has been issued.



(Health & Family Welfare Department)  
Food Safety and Standard Authority of India  
OFFICE OF THE CHIEF DISTRICT MEDICAL OFFICER :  
ROURKELA MUNICIPAL CORPORATION



**Registration Certificate-RC**  
(See Regulation 2.1.1(5))  
Food License Under FSS Act,2006  
Registration No. 22019036000414

1. Name and permanent address of Food Business Operator (FBO)	ALEENA RESTAURANT YASIN MARKET COMPLEX, OLD OUT STATION ROAD, BACK SIDE OF BIG BAZAAR, DARGAHI MOHALLAH, Raurkela (M), Ward 1, ROURKELA MUNICIPAL CORPORATION (Orissa), - 769001	
2. Address of location where food business is to be conducted / premises	YASIN MARKET COMPLEX, OLD OUT STATION ROAD, BACK SIDE OF BIG BAZAAR, DARGAHI MOHALLAH, Raurkela (M), Ward 1, ROURKELA MUNICIPAL CORPORATION (Orissa), - 769001	
3. Kind of Business	Food vending establishment	
4. Photo Identity Card	Aadhaar Card	

This Registration is granted under and is subject to the provisions of FSS Act, 2006 all of which must be complied with by the Food Business Operator(FBO).



Place : ROURKELA MUNICIPAL CORPORATION  
Date of Issue : 24/10/2019  
Period of Validity : 16/10/2020

Designated officer/Food Safety Officer

<https://mail.google.com/mail/u/17ik=cd5d4f7328&view=pt&search=all&permthid=thread-f%3A1648431495984256399&siml=msg-f%3A16484314...> 1/6

*Food Safety Licence*



# ANNEXURE II – PHOTOGRAPHS OF ENVIRONMENTAL INITIATIVES



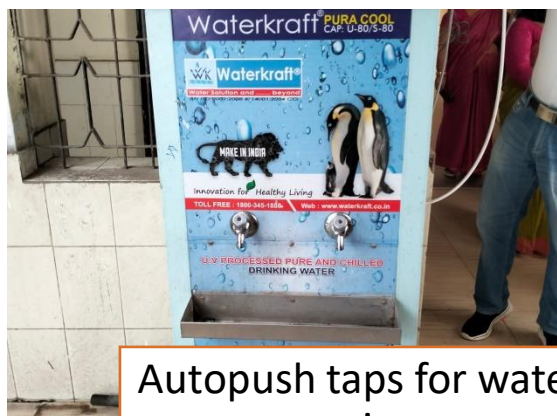
Rainwater storage tanks



Bird nest in campus corridor



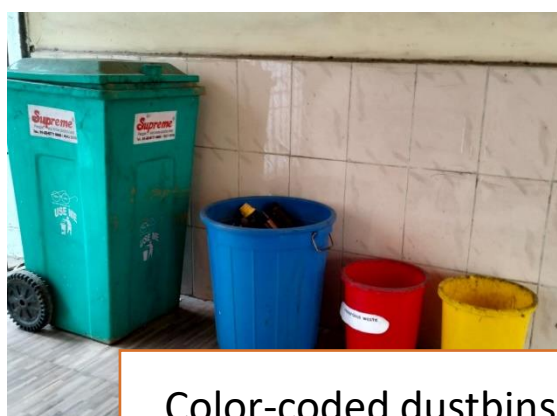
Urinals for water conservation



Autopush taps for water saving



Soundproof silent generators



Color-coded dustbins

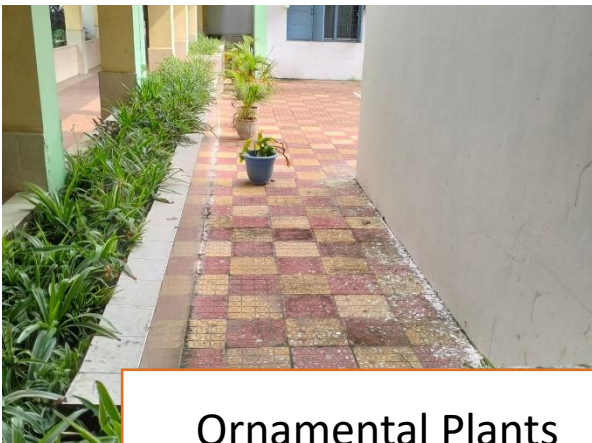




Incinerator for BMW disposal



Herbal Garden



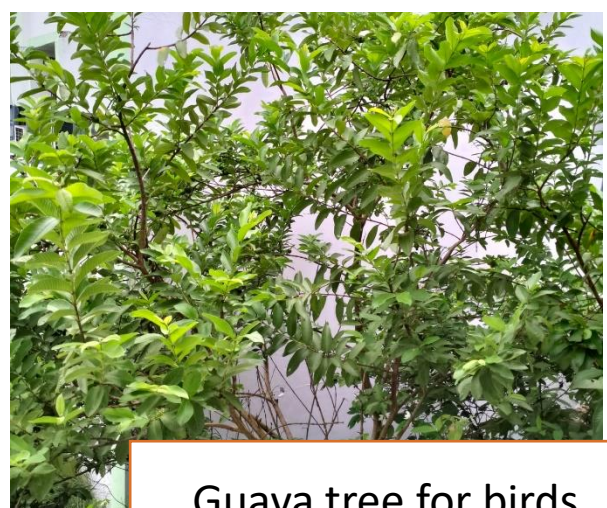
Ornamental Plants



Water purifier



Plantation drive



Guava tree for birds





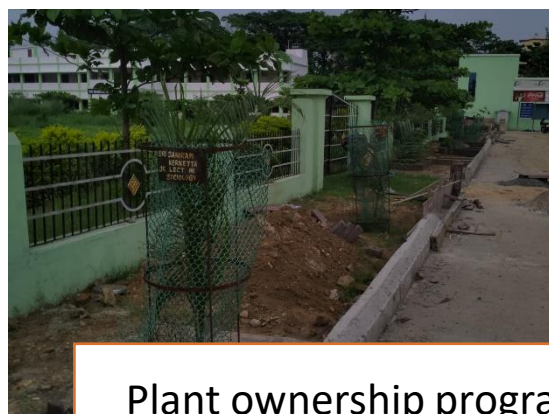
Cleanliness awareness posters



Energy saving AC



Mini eco pond



Plant ownership program



E-Waste collection box



Awareness campaign

\*\*\*\*\* END OF THE REPORT \*\*\*\*\*



ସରକାରୀ ସ୍ୱୟଂଶାସିତ ମହାବିଦ୍ୟାଳୟ, ରାଉରକେଲା  
GOVERNMENT AUTONOMOUS COLLEGE, ROURKELA  
Sundargarh, Raghunathpali, Rourkela, Odisha



**GOVERNMENT AUTONOMOUS COLLEGE**

# ENVIRONMENT AUDIT REPORT

2021-2022

PREPARED BY  
EHS ALLIANCE SERVICES



## Environment Audit Report

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# Audit certificate



# CERTIFICATE

PRESENTED TO

## GOVERNMENT AUTONOMOUS COLLEGE

Raghunathpali, Rourkela, Odisha 769004

Has been assessed by EHS Alliance Services for the comprehensive study of environmental impacts on institutional working framework to fulfill the requirement of

## ENVIRONMENT AUDIT

ACADEMIC YEAR 2021-22

The environment legal compliances and initiatives carried out by the institution have been verified on the report submitted and were found to be satisfactory.

The efforts taken by management and faculty towards environment and sustainability are highly appreciated and noteworthy.

SIGNATURE



15.09.2022

DATE OF AUDIT





# Acknowledgement

EHS Alliance Services would like to thank the management of Government Autonomous College for assigning this important work of Environment Audit. We appreciate the co-operation to the teams for completion of assessment.

We would also like to thank **Smt. Rameshwari Bhoi (Asst. Professor - Department of Political Science) – Audit Coordinator**, for her continuous support and guidance, without which the completion of the project would not have been possible. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

We are also thankful to

**Dr. Lichita Patro**

*Asst. Professor - Department of Botany*

**Dr. Pratap Kumar Swain**

*Asst. Professor - Department of Chemistry*

**Mr. C. P. Ranjan**

*Asst. Professor - Department of Political Science*

Last but not the least, we would like to thank **Dr. Bijaya Kumar Behera - Principal** for giving us an opportunity to evaluate the environmental performance of the campus.



# Disclaimer

EHS Alliance Services Audit Team has prepared this report for Government Autonomous College based on input data submitted by the representatives of College complemented with the best judgment capacity of the expert team.

While all sensible care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

If you wish to distribute copies of this report external to your organisation, then all pages must be included.

EHS Alliance, its staff and agents shall keep confidential all information relating to your organisation and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies.

EHS Alliance staff, agents and accreditation bodies have signed individual confidentiality undertakings and will only receive confidential information on a 'need to know' basis.

**Signature**

**LEAD AUDITOR**



# Concept and context

In India, the process for environmental audit was first mentioned under the Environment Protection Act, 1986 by the Ministry of Environment of forests on 13th march, 1992. As per this act, every person owning an industry or performing an operation or process needs a legal consent and must submit an environmental report or statement.

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2019–20 onwards that all Higher Educational Institutions should submit an annual Green, Environment and Energy Audit Report. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the sustainable environment.

In view of the NAAC circular regarding environment auditing, the College management decided to conduct an external environment assessment study by a competent external professional auditor.

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 Environment 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.”

This audit focuses on the environment legal compliances and implementation of rules defined by MoEFCC or state pollution control board. The concepts, structure, objectives, methodology, tools of analysis, and objectives of the audit are discussed below.



# Introduction

Nature is very precious gift for all life forms. Disturbance in the nature causes environmental Problems. These are increasing day by day as a result of development of urbanization and industrialization on earth. Because of unplanned utilization of resources, our planet is facing tremendous pressure results a sharp rise in temperature. Therefore, there is an urgent need to plan the consumption of the resources in sustainable manner in order to conserve natural resources for future generation.

Sustainable development is becoming popular in the world for saving the earth. Utilizing resources in judiciously can save the earth's precious resources. Measurement of environmental components is the most effective step to conserve and protect natural resources.

Environmental auditing had begun in the early 1970s with provision of civil lawsuits for non-compliance with environmental regulations. Environment auditing involves on site visit, collection of samples, performing analyses, and report results to competent authorities.

Industry, the corporate world is initiating auditing for saving natural resources. Academic institutions also can contribute to the preservation and conservation of resources within their premises.

In this "Environment Audit" report would help everyone to think about preserving resources, show willingness to learn their importance, adopt steps to minimize resource use and set an example for others to follow the path of eco-friendly practices to achieve the goal of sustainable development. Effective implementation of environmental auditing helps in minimization of environmental risks at low cost.



## Overview of the College

The College started as Rourkela Science College from 16 th August, 1961 and was taken over by Government Odisha on 01-07-1963. With the vertical academic growth of the College was conferred with autonomous status in 2002. In the year 2002 the College was accredited by NACC with Grade-B. The College offer variety of Courses at different levels. Besides Art, Science and Commerce at Higher Secondary and Degree levels the College also offers Master Degree in 17 subjects and M.Phil in 03 subjects i.e. Botany, English and Odia. M.Sc in Computer Science, Maste in Commerce, Degree Courses in Computer Science, Electronics and Tele-Communication(ETC), Mathematics with Computer(MTC), PGDCA, PGDCH come uner Self-finance courses. The College also offers various Degree and P. G. level Courses under Odisha State Open University. The College has been also provided separate Rooms for IGNOU Study Centre. As per the Circular of the Department of Higher Education Government of Odisha the College now stands Bi-furcated in to the Government Autonomous College, Rourkela with effect from Academic Session 2001-2002. Ironically the number of staff both teaching and non-teaching have gone-down after it was Autonomous. There by the Classes are engaged by Guest faculty who are engaged time to time.

The College has not received any UGC grant for last three years. Remuneration for non-teaching is paid from the fee collected from the students, as there is no special grant for the Government for this purpose. This has been a hindrance in achieving our mission of academic excellence to make this premier Institute , a centre of quality learning by training the students to be creative and competitive enough to face the challenges of the new millennium.







**MISSION & VISION**

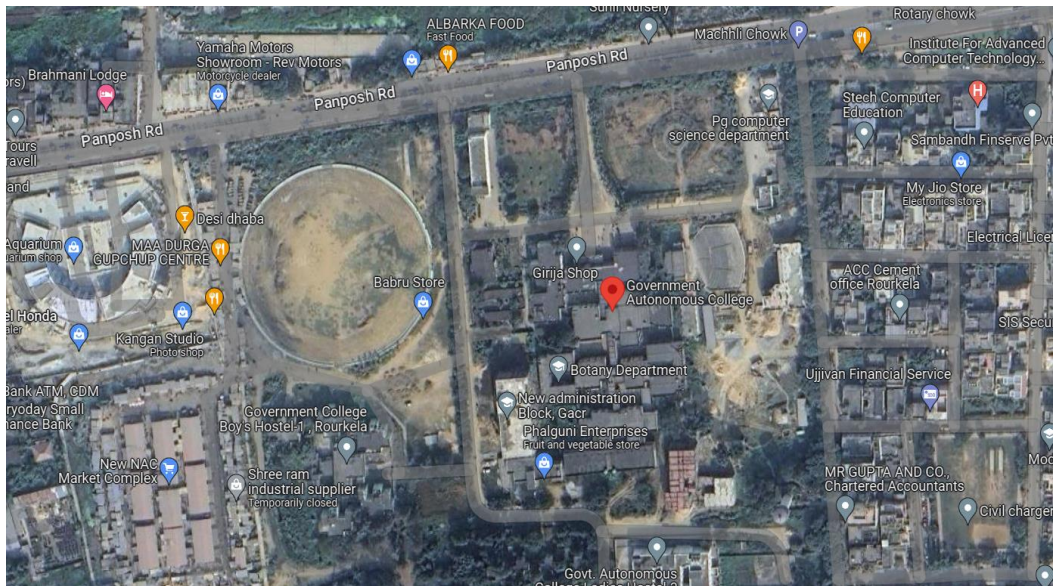
**MISSION**

To achieve Academic Excellence by giving impetus and adapting to measures for Enhancing Effective Quality Sustenance and Progression on all key facets of Education. Providing a Dynamic and Conducive Environment for all in order to Inculcate, Infuse, Imbibe, Equip and Disseminate Value Oriented Learning, Creativity, Innovation, Societal Consciousness to achieve Sustainable Livelihood.

**VISION**

To achieve Academic Excellence by giving impetus and adapting to measures for Enhancing Effective Quality Sustenance and Progression on all key facets of Education. Providing a Dynamic and Conducive Environment for all in order to Inculcate, Infuse, Imbibe, Equip and Disseminate Value Oriented Learning, Creativity, Innovation, Societal Consciousness to achieve Sustainable Livelihood.

**Geo Location**  
 Geo Coordinates from Google maps:  
 22.2263719, 84.8062211





# Audit Participants

On behalf of the College

Name	Designation
<i>Dr. Bijaya Kumar Behera</i>	<i>Principal</i>
<i>Smt. Rameshwari Bhoi</i>	<i>Asst. Professor - Department of Political Science</i>
<i>Mr. Choudhury Pardosh Ranjan</i>	<i>Asst. Professor - Department of Political Science ( IQAC Coordinator)</i>
<i>Dr. Smruti Snigdha Mishra</i>	<i>Asst. Professor - Department of Chemistry</i>
<i>Mr. Sameer Saurava Prusty</i>	<i>Asst. Professor - Department of Zoology</i>
<i>Dr. Pratap Kumar Swain</i>	<i>Asst. Professor - Department of Chemistry</i>
<i>Dr. Bishwanath Parija</i>	<i>Asst. Professor - Department of Physics</i>
<i>Dr. Parbhudutta Mohanty</i>	<i>Asst. Professor - Department of Computer Science</i>
<i>Dr. Niranjana Sahu</i>	<i>Asst. Professor - Department of Physics</i>
<i>Dr. Lichita Patro</i>	<i>Asst. Professor - Department of Botany</i>
<i>Mr. Prashant Kumar Sethi</i>	<i>Asst. Professor - Department of Botany</i>
<i>Dr. Abeg Jaiswal</i>	<i>Asst. Professor - Department of Statistics</i>
<i>Mr. C. P. Ranjan</i>	<i>Asst. Professor - Department of Political Science</i>
<i>Dr. Sasmita Sasmal</i>	<i>Asst. Professor - Department of Chemistry</i>
<i>Ms. Usharani Sethi</i>	<i>Asst. Professor - Department of Commerce</i>

On behalf of EHS Alliance Services

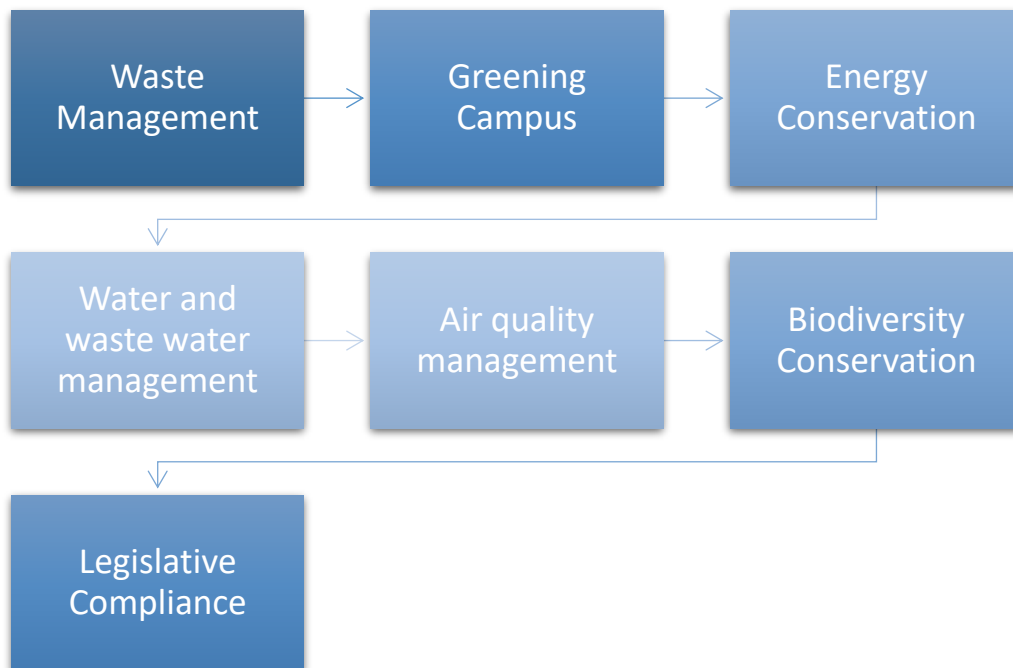
Name	Position	Qualifications
<i>Dr. Uday Pratap</i>	<i>Lead-Auditor</i>	<i>Ph.D. , PDIS, QCI – WASH, Lead Auditor ISO 14001:2015</i>
<i>Ms. Pooja Kaushik</i>	<i>Co-Auditor</i>	<i>M.Sc, Field Expert</i>

# Executive Summary

The environment 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. Our approach to promoting a Green Campus to inculcate sustainable value systems among the students, so that they carry the learning and practice them in their future endeavors. This will ensure that Sustainability and Environmental practices get embedded in all the institutions and organizations in the country.

A Green Campus is a place where environmentally friendly practices and education combine to promote sustainability in the campus which ultimately offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to the environmental, social, and economic needs of the mankind.

This is the very first environmental audit of the College for doing their bit towards environmental protection and environmental awareness at local and global front. The 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 the audit. This audit report contains observations and recommendations for the improvement of environmental consciousness.





# Waste Management

## TYPES OF WASTE ON COLLEGE CAMPUS

To create effective waste management plans, College first need to know the types of waste they produce. Below, we have compiled a list of various kinds of waste commonly generated on institutional campus:

1. **Food Waste** - College campus generates food waste. The average mess and canteen generates approximately 20 kg of food waste a day. The reasons for food waste on an educational campus may be over purchasing food to ensure a sufficient supply and then throwing it away, especially in canteen/cafeteria where plentiful stores are essential. And in the cafeteria, students may pile food onto their ample trays, find it unappealing once they sit down and dutifully scrape it into the garbage. Immediate attention is given to the food waste minimization techniques.
2. **Recyclable Paper, Cardboard, Plastic, Glass and Cans** -Campus tends to produce vast quantities of these recyclables. Even in the digital age, many students, professors and staff members still prefer handwritten notes and end up with piles of unwanted paper once their courses and projects are complete. The snacks so essential for socializing tend to come in recyclable plastic, glass or aluminium containers. And shipments of necessary items throughout the year are likely to arrive in recyclable plastic and cardboard packaging. The same is sold/auctioned to the scrap vendors time to time.
3. **Student Clothes and Housewares** - As we have mentioned above, many students find it more convenient to throw away their clothes and dorm furnishings at the end of the year than donate or recycle them.
4. **E – Waste - Student and facility electronics often form a large portion of a campus’s waste** — As campus continually upgrade their computing facilities and office computers to keep up with the latest technology, the old computers have to go somewhere. Same is the case with old printers, phones, copy machines and other electronics that receive upgrades over the years. Discarded student electronics often become part of a College’s waste stream as well. Students may throw away old phones, TVs, tablets, laptops and printers, along with cords and other accessories. Recycling is a much more eco-friendly option — the metals in old electronics often have a high reuse value. College has tie-up with external authorised agency details mentioned in legislation compliances.
5. **Maintenance Waste** - In the maintenance department, spent paints, solvents, adhesives and lubricants all form potentially hazardous waste. Because they are difficult to recycle, spent incandescent light bulbs usually become landfill waste. Spent fluorescent light bulbs, which contain small amounts of mercury, typically require special handling because of the environmental and health risks they pose.



6. **Furniture** - Furniture waste on a college campus has a couple different sources. The campus itself may also get rid of old furniture as it modernizes its classrooms, cafeterias, computer labs and study spaces. Annually sold to junk dealer.
7. **Books/Magazines/Newspapers** - Books accounted for solid waste generation and College often generate tons of textbook waste. As courses upgrade to new editions, they may end up throwing their newly obsolete textbooks into the garbage if donation programs cannot use them. Students of GOVERNMENT AUTONOMOUS COLLEGE donates their text books and notes to junior students, or else are auctioned to reseller.
8. **C & D Waste** - Expansion of college campus building and renovation works result significant amount of construction and demolition waste that should be either used for back filling or disposed off through authorised dumping site by CPCB/SPCB.
9. **Solid Waste** - The College is managing solid waste by providing it to the MCD.

## Energy Conservation

1. **List ten 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.**

- *Using Energy efficient appliances*
- *Switching off the electrical equipment when not in use*
- *Use of Air conditioners at optimum temperatures as per the utilization schedule*
- *LED lights*

2. **Are there any energy-saving methods employed in your institute? If yes, please specify. If no, suggest some**

*Yes, Government Autonomous College has adopted energy-saving techniques*

- *LEDs installed*
- *Use of Air conditioners at optimum temperatures as per the class timetable*
- *Carpooling*





**Environment Audit Report**

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**3. How many CFL/LED bulbs have your institute installed?**

*Government Autonomous College has replaced almost 60% of the conventional bulbs and tube lights with LED Lights.*

**4. Do you run “switch off” drills at the institute?**

Yes

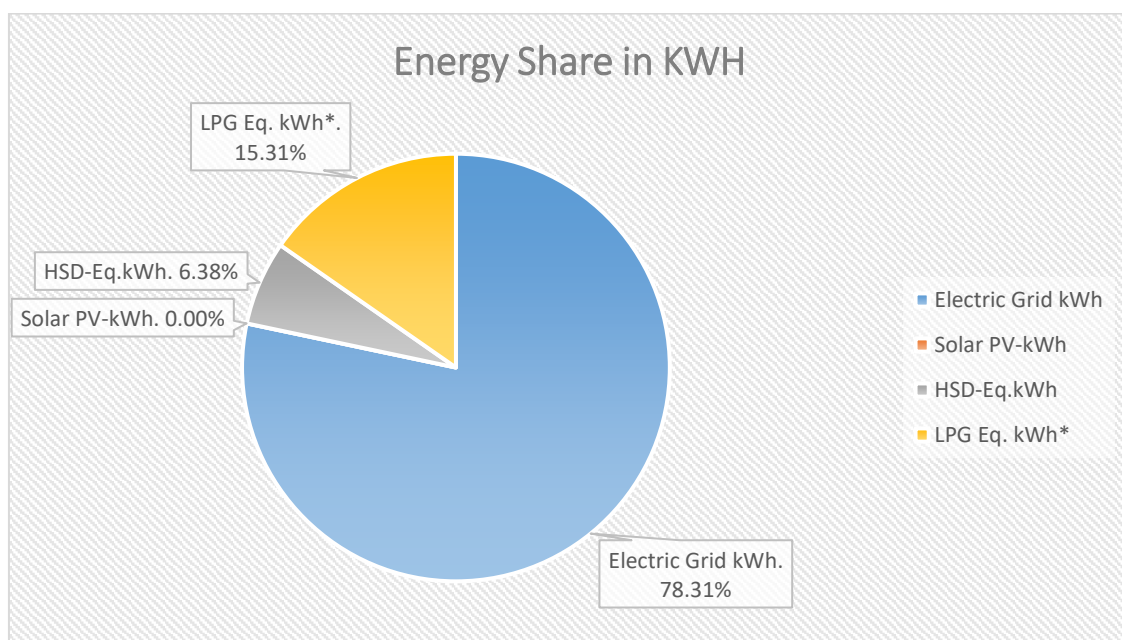
**5. Are your computers and other equipment put in power-saving mode?**

*Yes, Government Autonomous College put the equipment on power-saving mode*

**6. Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes most of the time? If yes, how many hours?**

Yes

Energy Share	kWh	Percentage (%)
Electric Grid kWh	234725.15	78.31%
Solar PV-kWh	0.00	0.00%
HSD-Eq.kWh	19125.20	6.38%
LPG Eq. kWh	45886.52	15.31%
<b>Total -kWh</b>	<b>299736.87</b>	<b>100%</b>





# Water and Wastewater Management

## 1. List uses of water in your institute

*Basic use of water in campus:*

*Drinking – 59.02 KL/month*

*Gardening – 509.90 Kl/month*

*Kitchen and Toilets – 454.66 KL/month*

*Others – 151.14 KL/month*

*Hostel – 1876.50 KL/Month*

*Total = 3051.21 KL/Month*

## 2 How does your institute store water? Are there any water saving techniques followed in your institute?

*College stores water in underground and overhead tanks.*

### *Saving Techniques*

*Avoid overflow of water-controlled valves are provided in water supply system.*

*Close supervision for water supply system.*

## 3. Locate the point of entry of water and point of exit of waste water in your institute. (Entry and Exit)

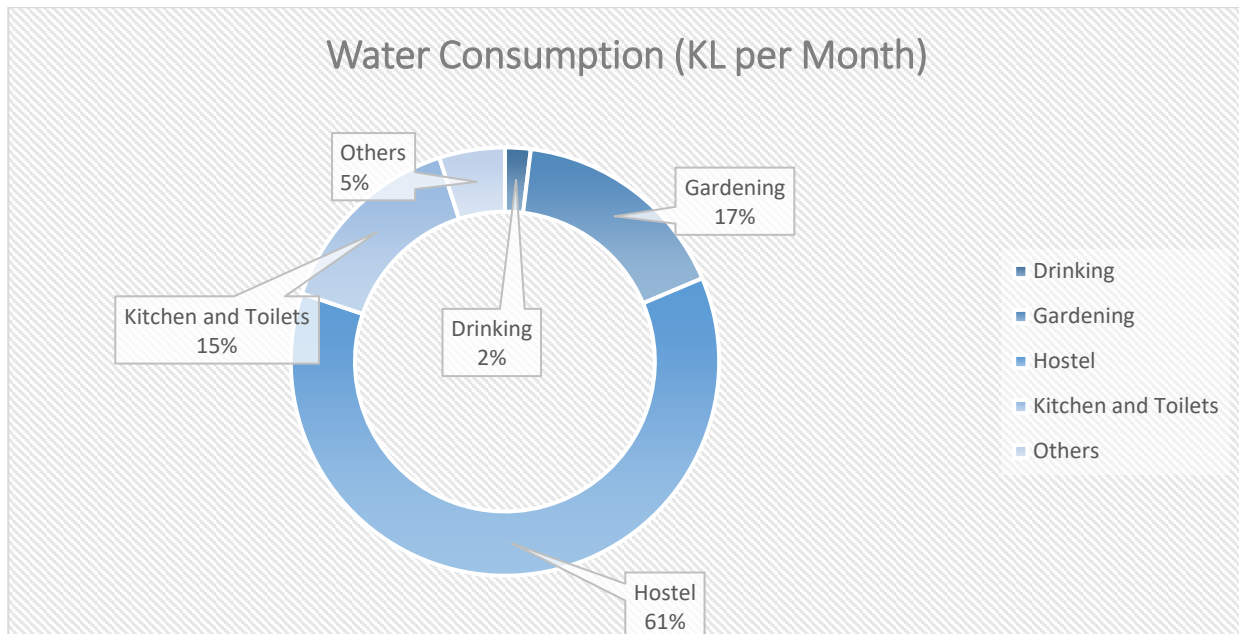
*Entry - Water comes from Municipal Corporation and Borewell.*

*Exit- From Canteen, Toilets, Hostel and bathrooms through covered drainage which is connected to sewer*



## Environment Audit Report

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#### 4. Write down ways that could reduce the amount of water used in your institute

*Basic ways:*

- Close the taps after usage
- Water Conservation awareness for new students
- Maintenance and monitoring of valves in supply system to avoid overflow, leakage and spillage

#### 5. Does your institute harvest rainwater?

No

#### 6. Is there any water recycling System?

No



**Environment Audit Report**

# Air Quality Management

## 1. Are the Rooms in Campus Well Ventilated?

*Yes, as per National Building Code, guidelines*

## 2. Window Floor ratio of the Rooms?

*Very Good, ample daylight utilization because of big windows.*

## 3. What is the ownership of the vehicles used by your campus?

*Government Autonomous College doesn't own any vehicle*

## 4. Provide details of college-owned vehicles?

<i>Details of college-owned vehicles</i>	<i>Buses</i>	<i>Cars</i>	<i>Vans</i>	<i>Other</i>	<i>Total</i>
<i>No. of vehicles</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

## 5. PUC done?

*NA*

## 6. Specify the type of fuel used by your campus's vehicles

*NA*

## 8. Air Quality Monitoring Program (If, Any)

*No monitoring is being done*



# Environment 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.

*Yes, the eco club of Government Autonomous College is conscious about the environment protection and takes proper measures in terms of awareness campaigns, activities, webinar, seminars, etc.*

## 3. Does Environmental Ambient Air Quality Monitoring conducted by the Institute?

No

## 4. Does Environmental Water and Waste water Quality monitoring conducted by the Institute?

No

## 5. Does stack monitoring of DG sets conducted by the Institute?

No

## 6. Is any warning notice, letter issued by state government bodies?

No

## 7. Does any Hazardous waste generated by the Institute?

No





# General Information

## 1. Does your institute have any rules to protect the environment? List possible rules you could include.

*Yes, the Government Autonomous College eco club carries out various programs for environmental protection periodically on the campus.*

## 2. Are students and faculties aware of environmental cleanliness ways? If Yes Explain

*Yes, the college organizes various activities for environmental cleanliness*

- *Reduce CO<sub>2</sub> footprints by opting energy-saving methods and using public commutes.*
- *Recycling of waste products*
- *Avoid single-use plastic*
- *Less use of paper*

## 3. Does Important Days Like World Environment Day, Earth Day, and Ozone Day etc. eminent in Campus?

*Yes, World Environment Day, Ozone Day, Earth Day, and more are celebrated by campus. Furthermore, Government Autonomous College organizes different activities like Donation drives, plantation drives and many more.*

## 4. Does the Institute participate in the National and Local Environmental Protection Movement?

*No*

## 5. Does the Institute have any Recognition or certification for environment friendliness?

*No*

## 7. Does the Institution conduct a green or environmental audit of its campus?

*This is the first external audit carried out by the College.*

## 8. Has the institution been audited /accredited by any other agency such as NABL, NABET, TQPM, NAAC etc.?

*Yes, the College is accredited as an NAAC grade B-rated college*



## Best Practices

- The institution has functional compost machines for organic solid waste management.
- There is a ban on single-use plastic and plastic crockery on the campus.
- The college has a separate storeroom for the safe storage of electronic waste. After a certain interval of time college disposes of the E-waste to concerned agencies through the auction process.
- The college has a rainwater storage system.
- Personal Vehicles (Students) are not allowed in the campus

## Recommendations

- Provide a sanitary waste disposal facility as per the CPCB guidelines for the management of sanitary waste (as per Solid Waste Management Rules, 2016). Installation of an Incinerator is recommended in campus
- Green building guidelines with ECBC compliance should be adopted for future expansion projects of the College.
- Environmental Monitoring i.e. (Ambient Air Quality monitoring, Stack Monitoring of DG sets, and Water monitoring need to be conducted by the State Pollution Control Committee, approved laboratory) should be conducted periodically.
- Agreement with third-party authorized vendors should be done for different types of waste management, such as paper recycling, e-waste, BMW, Plastic waste, etc.
- Eco-friendly parameters should be included in the purchase of articles and goods for the campus.
- The college should run Conservation awareness campaigns like online sessions and webinars for students and staff.



## Conclusion

This audit involved extensive consultation with all the campus team, interactions with key personnel on a wide range of issues related to Environmental aspects. Government Autonomous College has an eco-club for sustainable use of resources.

The audit has identified some observations for making the campus premise more environmental friendly. The recommendations are also mentioned with observations for the college campus team to initiate actions. The audit team opines that the overall site is well maintained from an environmental perspective. Few things that are important to initiate urgently are waste management plan and agreement with third party authorised vendors for waste management.

## 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 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**



Environment Audit Report

# Annexure Photographs



Well ventilated Campus



Well maintained Campus



Classrooms



Well equipped labs



Plantation drive



Plantation by Students and Faculty



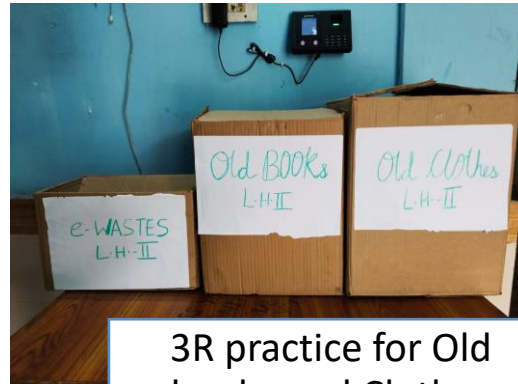


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Rainwater storage tanks



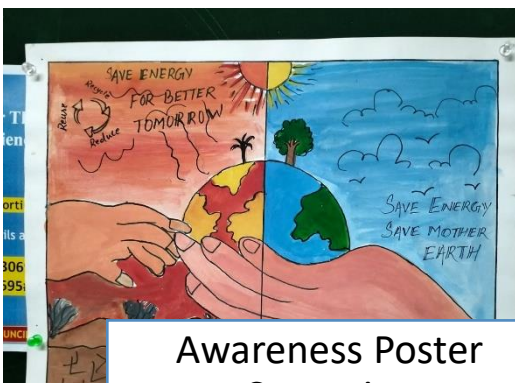
3R practice for Old books and Clothes



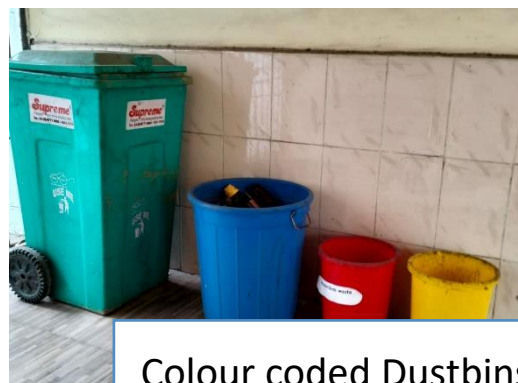
Nursery



Biodiversity Conservation



Awareness Poster Campaign



Colour coded Dustbins


\*\*\*\*\* **END OF THE REPORT** \*\*\*\*\*

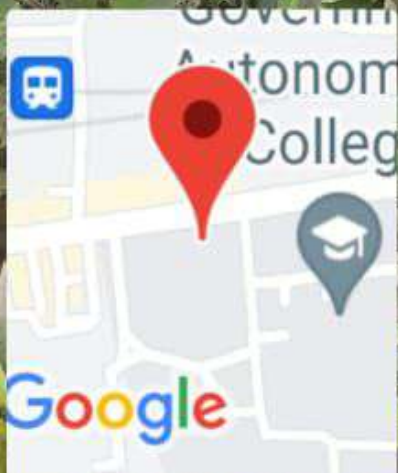









 GPS Map Camera



**Rourkela, Odisha, India**  
Panposh Nac Market, Raghunathpali, Rourkela,  
Odisha 769004, India  
Lat 22.227116°  
Long 84.807418°  
06/12/22 04:10 PM GMT +05:30





 GPS Map Camera

tonomous  
Colle




Google

**Rourkela, Odisha, India**  
N-4/18, Civil Township, Rourkela, Odisha  
769004, India  
Lat 22.226772°  
Long 84.80974°  
06/12/22 04:05 PM GMT +05:30





 GPS Map Camera




**Rourkela, Odisha, India**  
Kalinga Vihar Road Kalinga Vihar, Raghunathpali,  
Rourkela, Odisha 769004, India  
Lat 22.225591°  
Long 84.808094°  
06/12/22 04:18 PM GMT +05:30






ANU WASE HARVESTING,

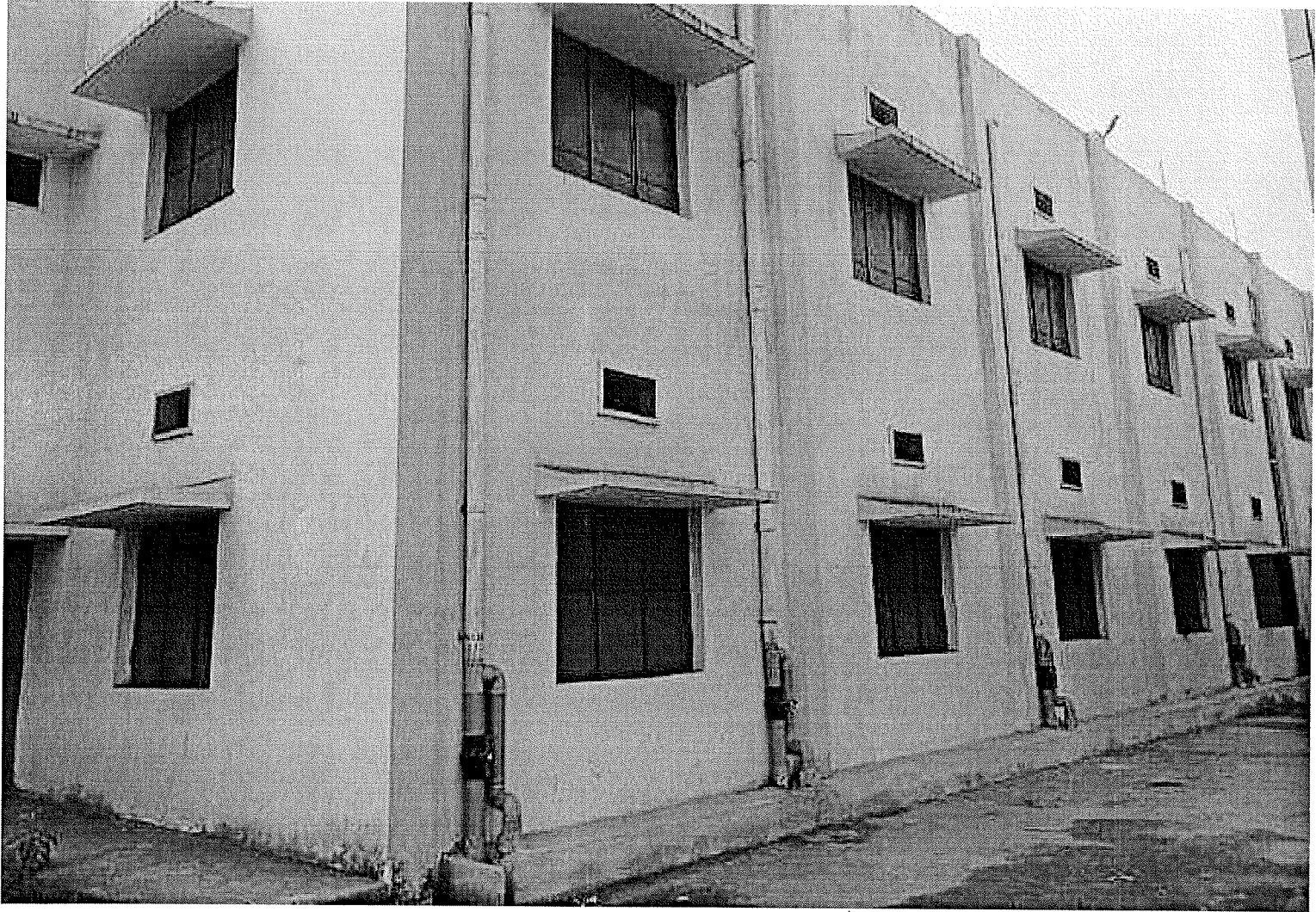
  
Principal  
Govt. (Auto) College  
Rourkela





RAIN WATER  
HARVESTING

  
Principal  
Govt. (Auto) College  
Rourkela



Rain Water Harvesting,

*[Signature]*

Principal  
Govt. (Auto) College  
Rourkela

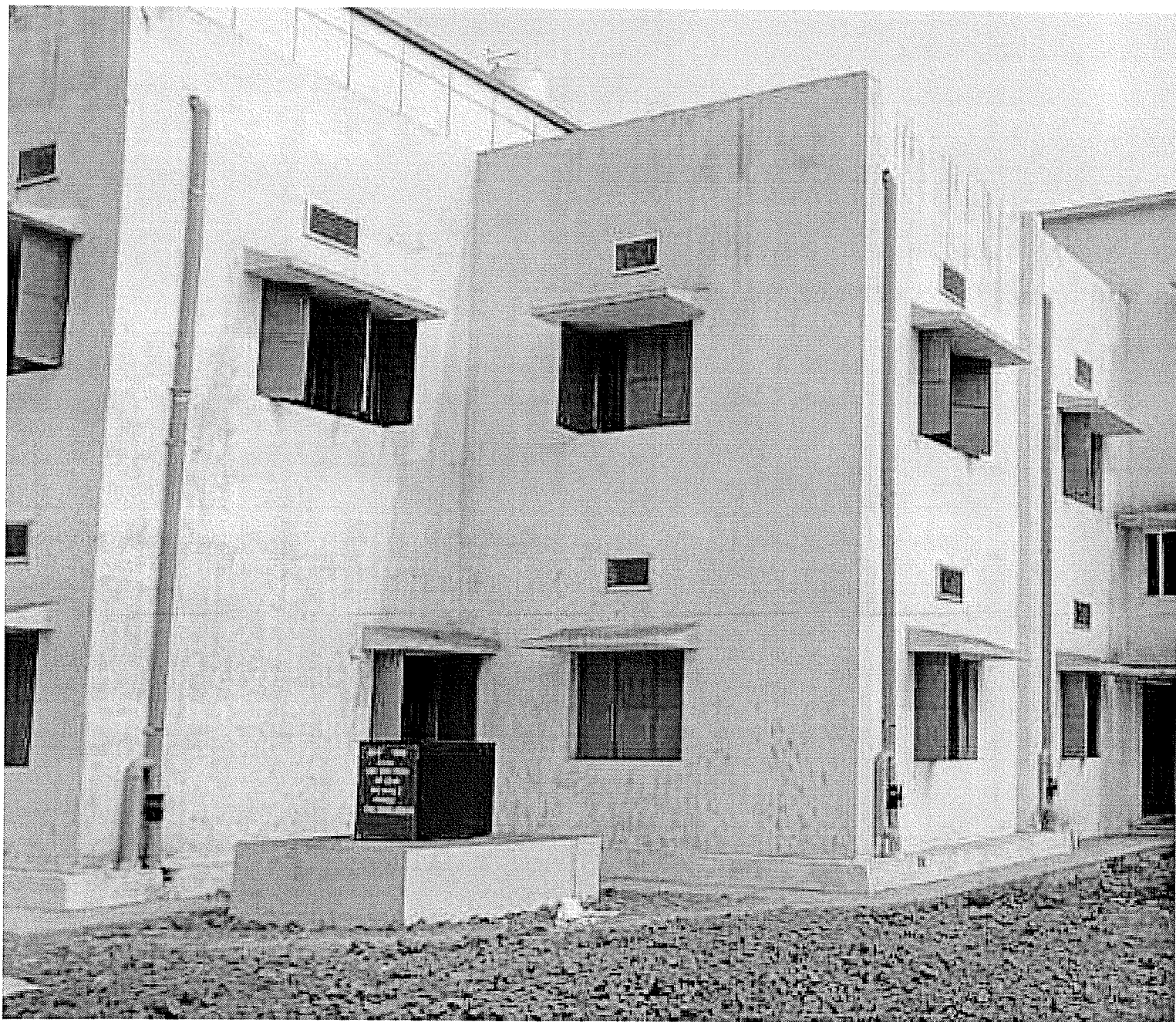





RAW WATER HARVESTING

*[Signature]*

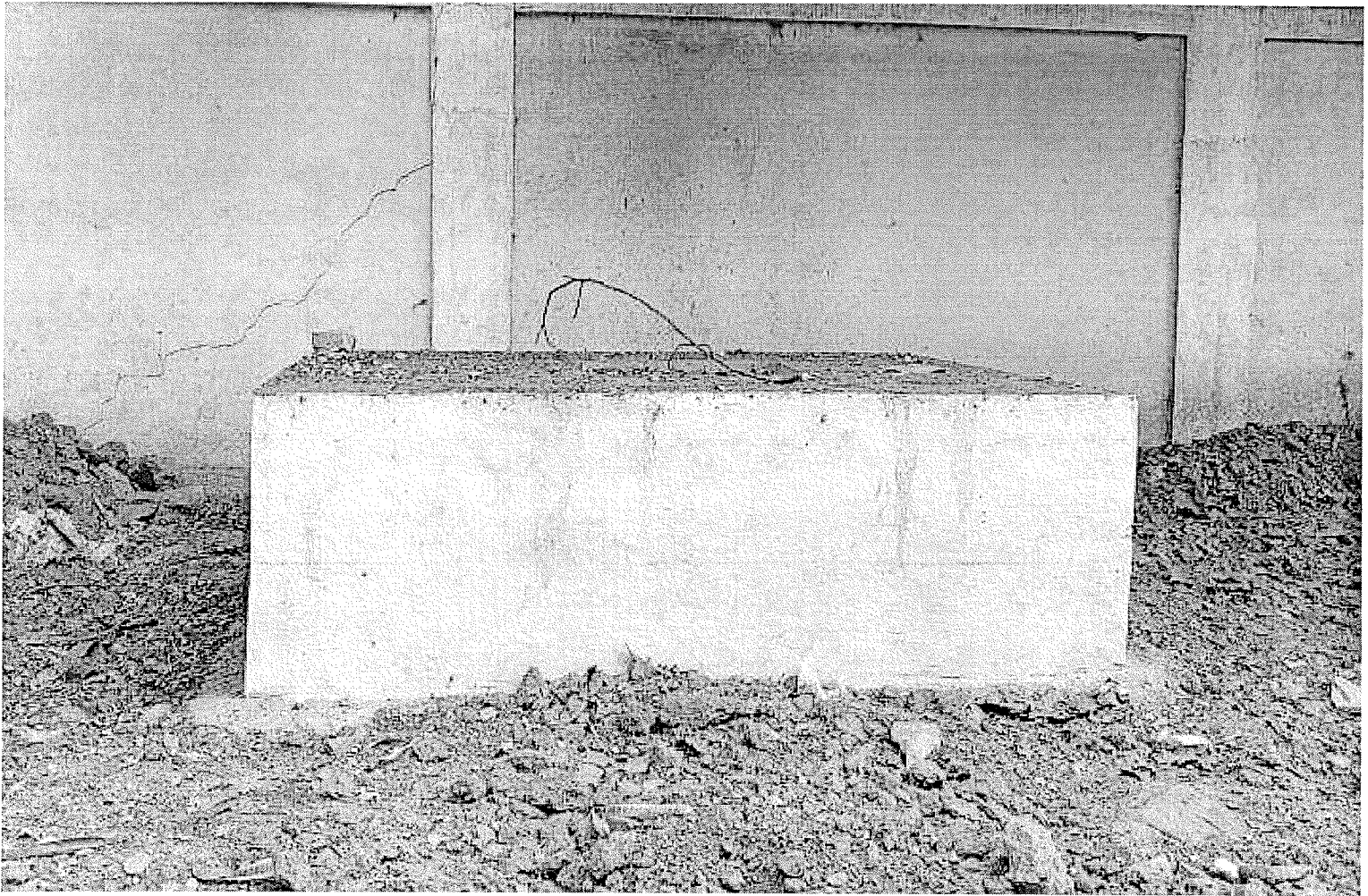
Principal  
Govt. (Auto) College  
Rburkela



RAIN WATER HARVESTING

  
Principal  
Govt. (Auto) College  
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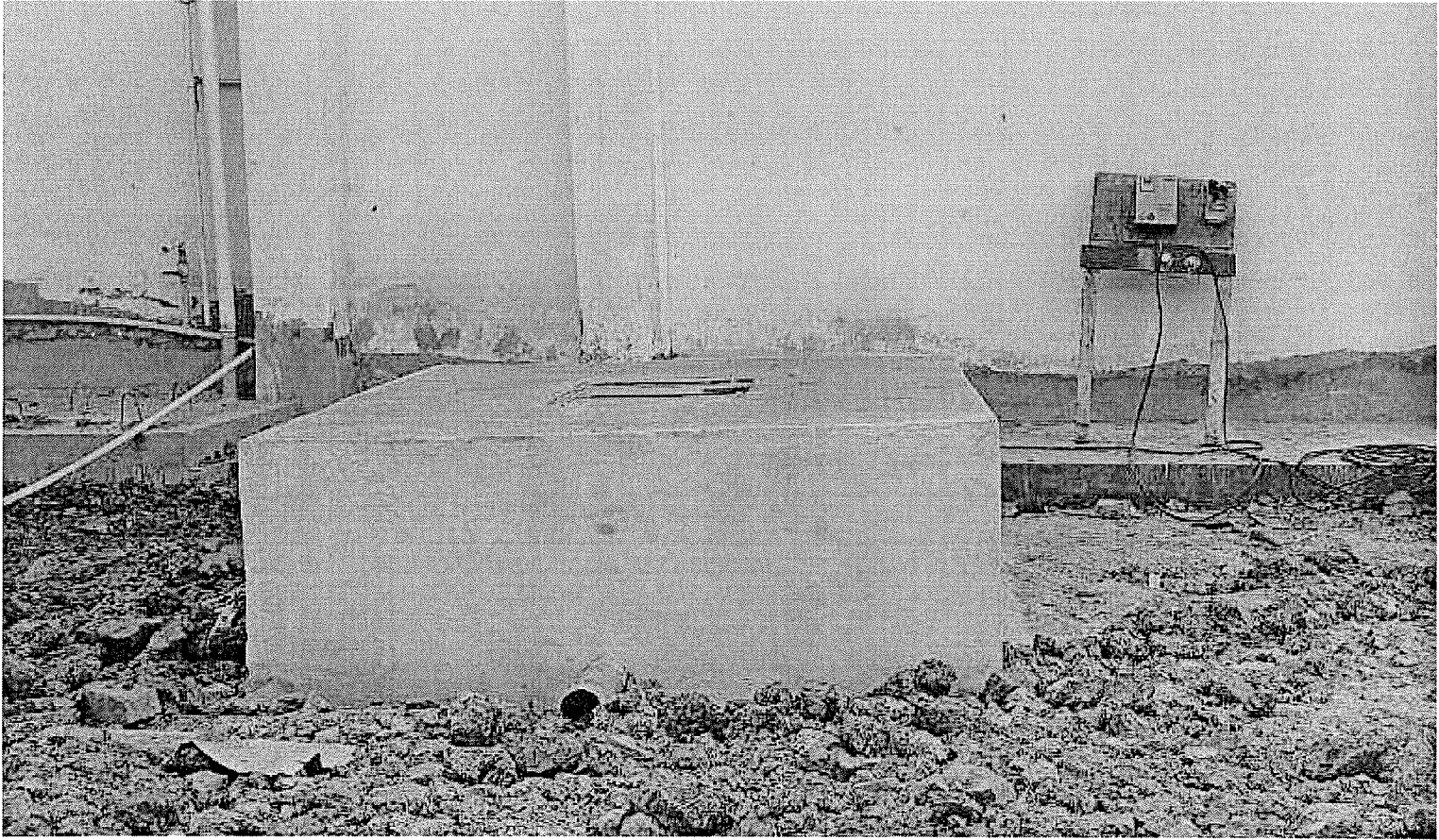




RAIN WATER HARVESTING.

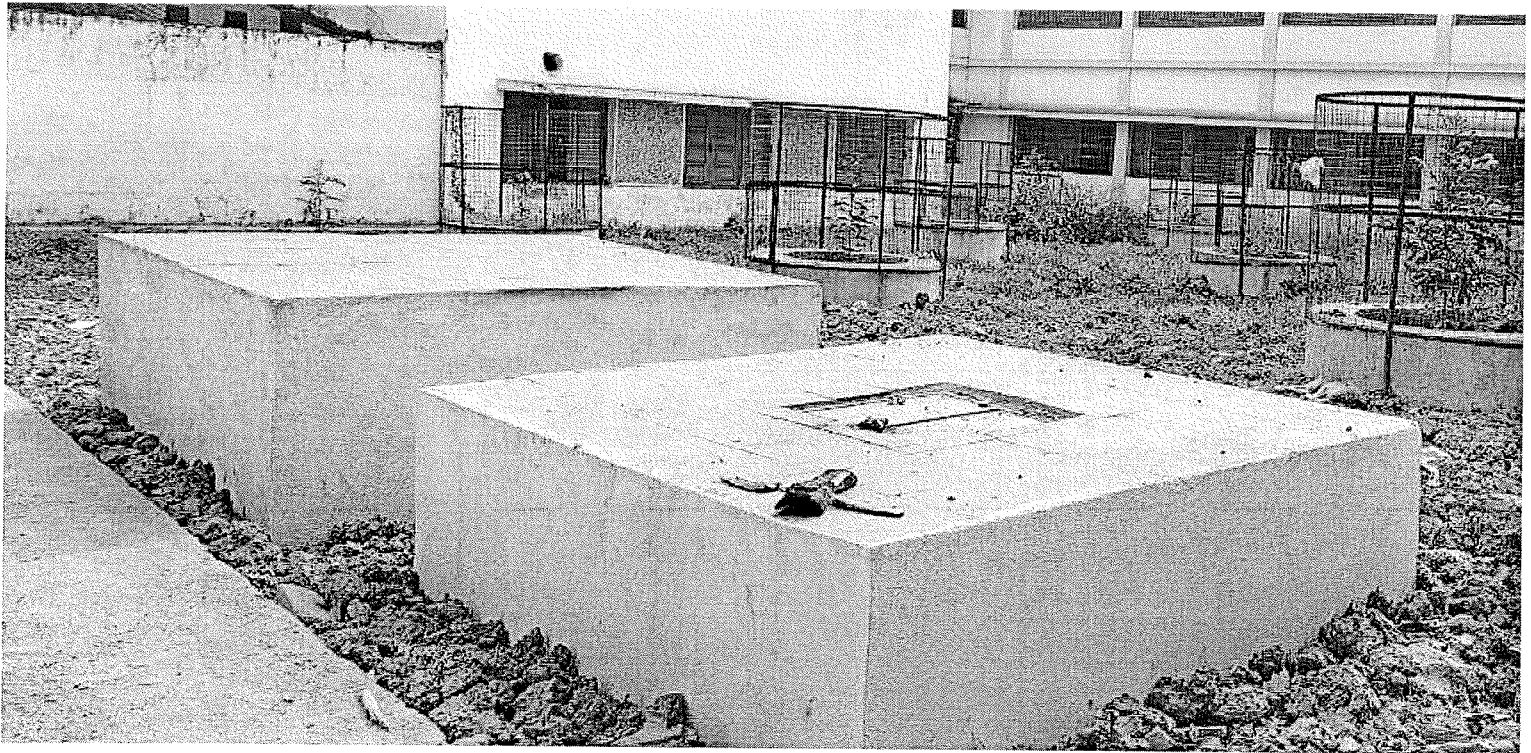
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Rain Water Harvesting

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Rain Water Harvesting.

  
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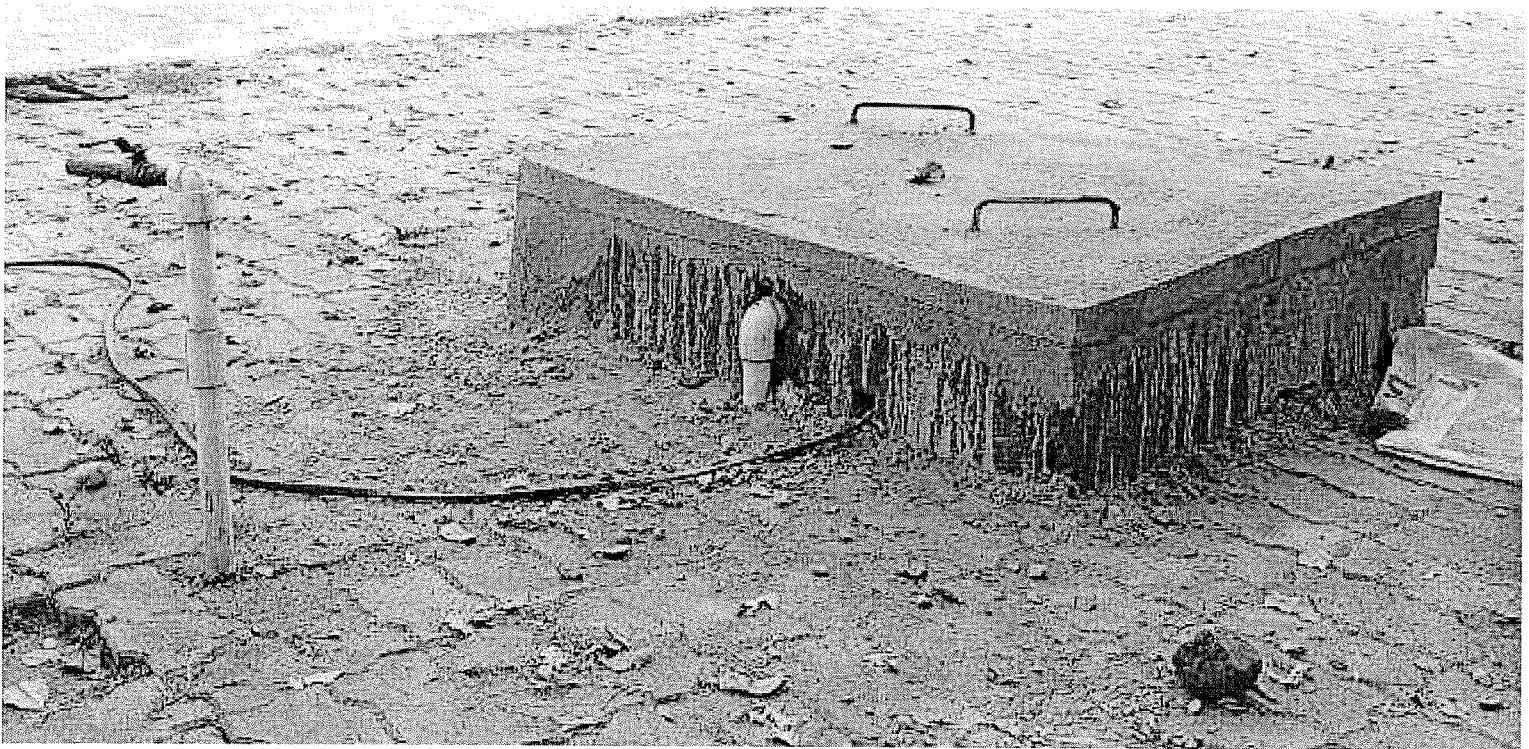




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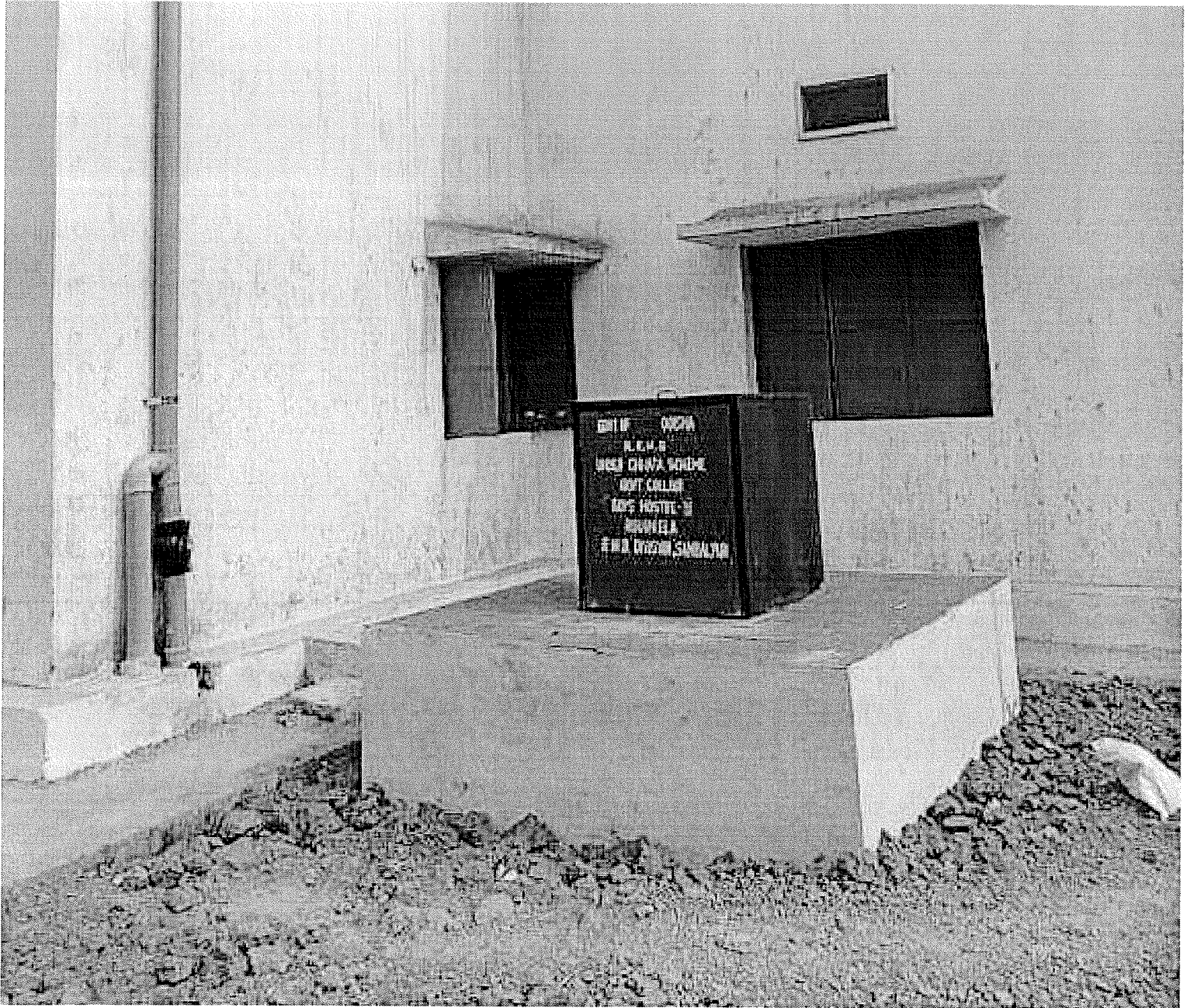




Rain Water Harvesting.



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Govt. (Auto) College  
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RAIN WATER HARVESTING .

*[Signature]*

Principa.  
Govt. (Auto) College  
Rourkela






BORE WELL

Principal  
Govt. (Auto) College  
Rourkela





BORE WELL

  
Principal  
Govt. (Auto) College  
Rourkela





BORE WELL

Principal  
Govt. (Auto) College  
Rourkela



POOR WELL



Principal  
Govt. (Auto) College  
Rourkela

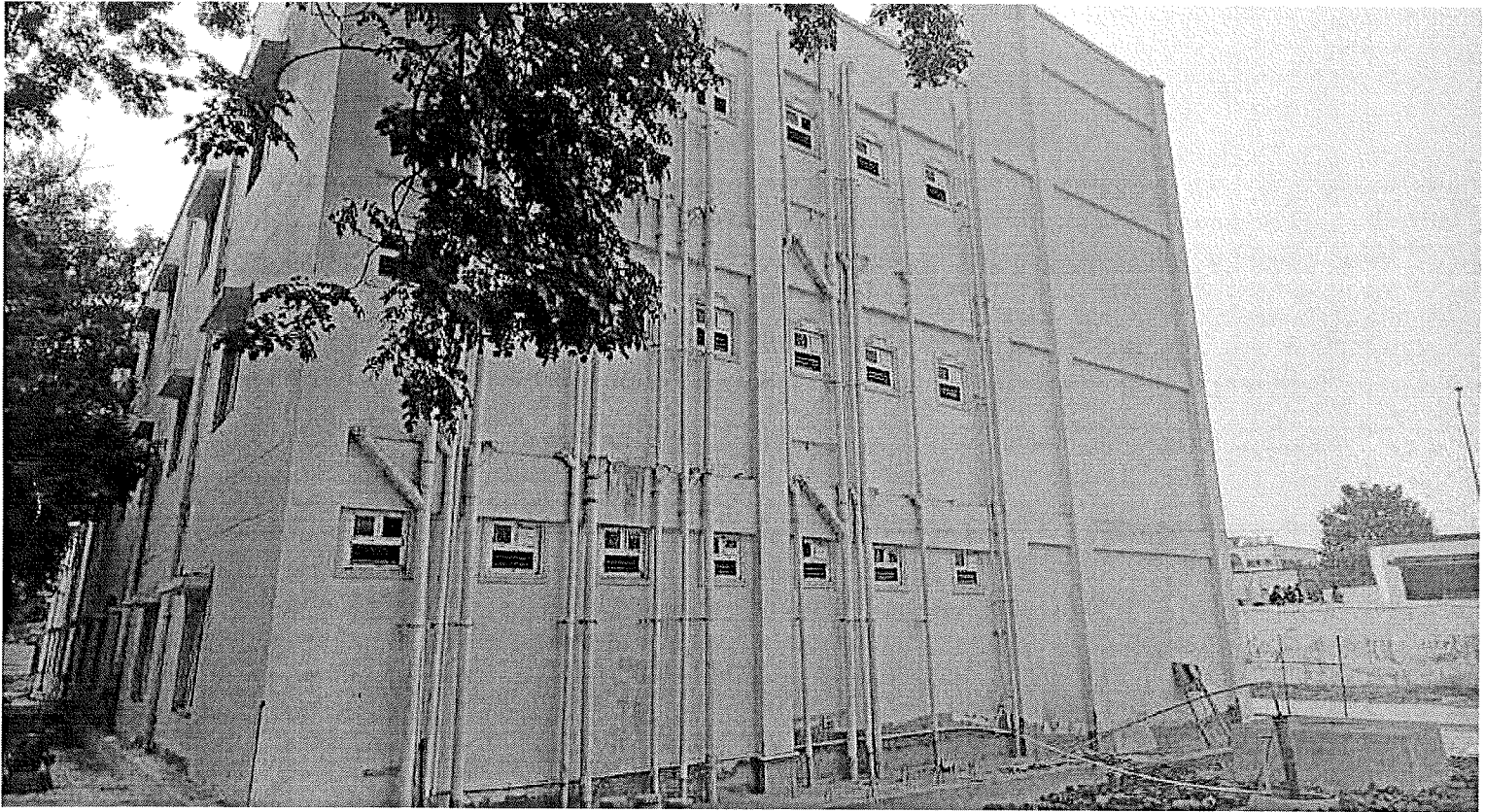




WATER TOWER .

Principal  
Govt. (Auto) College  
Rourkela





WATER DISTRIBUTION.



Principal  
Govt. (Auto) College  
Rourkela