



Government of Karnataka
Department of Collegiate Education
GOVT FIRST GRADE COLLEGE
Irakalagada-583287 Koppal District.

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Energy Audit: 2020-21

An energy audit is recommended to determine the energy consumption associated with a facility and the potential savings associated with that energy consumption.

From a general point of view, an energy audit provides enormous benefits in different areas.

❖ Objectives of Energy Audit

- To reduce energy costs.
- To reduce the dependency on energy sources.
- To reduce environmental damage and pollution.
- To increase the security of energy supply.
- To reduce damage to the environment associated with the exploitation of resources.
- To reduce the impact of greenhouse gas emissions.

❖ Steps of Audit

1. Audit was planned in the IQAC meeting along with Green Audit held on: 22/10/2020
2. Audit Team: Anitha M Patil, Umesha, Shankrayya and Divya

❖ Background information

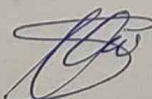
- Energy consuming devices: 161
- Built up area: 795.122sqmt
- Total no of employees: 25
- Total no of students: 495
- Electricity bill summary: Rs2500/ Month

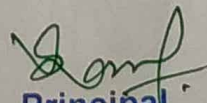
Energy Audit: Energy Consumption and Cost

S No.	Particulars	Findings			
1.	Energy consuming devices				
	→ Light bulbs				
	• LED BULBS	05			
	• LED Tube lights	76			
	→ Fans	55			
	→ Computers	13			
	→ Printers	03			
	→ Projectors	03			
	→ laptops	02			
	→ Electric water Pumps	1			
	→ Biometric Equipment	1			
	• Others	02			
	• Wi-Fi Routers				
2.	Average monthly electricity bill	Rs2500			
3.	Rooms get enough natural light	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">Poor</td> <td style="width: 33%; text-align: center;">Good</td> <td style="width: 33%; text-align: center;">Excellent √</td> </tr> </table>	Poor	Good	Excellent √
Poor	Good	Excellent √			

Measures initiated

To save energy, the college is using LED Tube lights. Energy consuming bulbs are not used in the college. All the staff and students are instructed to switch off the fans, computers, bulbs, water pumps, biometric when not in use. Students are strictly instructed to do proper usage of energy and energy saving measures.


 ಶಾಖಾಧಿಕಾರಿ (ವಿ)
 ಕಾ. ಮತ್ತು ಪಾ. ಶಾಲೆ
 ಜಿಲ್ಲಾ ಇರಕಲ್ಲಗಡಾ


Principal
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Environment Audit: 2020-21

An Environmental Audit is an independent assessment performed to ensure organizations are complying with environmental policies. It examines the amount of harm or risk of injury that may be posed by the assessed entity and determines the types of pollution being produced by looking at a broad range of locations, activities, and procedures. The information compiled from these factors to determine what changes would need to be installed for compliance. Environmental Audits play a significant role in sustainability.

❖ Objectives of Audit Environment

- To implement environment management policies.
- To control pollution.
- To improve safety and health conservations.
- To ensure waste prevention and reduction.
- To ensure internal as well as external value.

❖ Steps of Audit

1. Environment Audit was planned in the IQAC meeting along with Green Audit held on: 22/10/2020
2. Audit Team: Anitha M Patil, Umesha, Shankrayya and Divya

❖ Background information


- Industries around 25 km
- Local drainage system
- Number of trees grown
- Vehicle free campus
- Waste management

Environment Audit:

S No.	Particulars	Findings
1.	Factors for Healthy Environment	
	→ Industries near by	Around 25 km
	→ Well built drainage system	Yes
	→ Distanced from main road	150 meters
	→ Trees Grown	66
	→ Air quality	Good
	→ Sound pollution	No
	→ Waste Management	Yes
	→ Automobile Free Campus	Yes
	→ Plastic Free Campus	Yes

Measures initiated

The college is placed 15 kms away from the district and also distanced from the main road which benefits and safe from the sound and air pollution. The college instructed for automobile and mobile free campus. A very good waste management has been followed using municipality van to have the clean surroundings. A very good green campus built for healthy air and also college took the oath of plastic free campus. The students, staff and principal office supervise and committed to the college instructions to ensure good environment.


ಕೆಂಪ, ಸ್ಥಾನಿಕ ಸಹಾಯಕರು
ಕೋಟಗಾಂವಿ ಉಪ ನಿರ್ದೇಶಕರು
ಕಛೇರಿ (ಆ.ಶಂ.) ಕೊಪ್ಪಳ


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Green Audit 2020-21

The green audits are tools that organizations use to identify their environmental impacts and assess their compliance with applicable laws and regulations, as well as with the expectations of their various stakeholders. It also serves as a means to identify opportunities to save money, enhance work quality, improves employee health, safety and morale, reduce liabilities and achieve other form of business values.

Objectives of Green Audit

1. Understand the surrounding environment and find out the ways of co-existing in harmony.
2. To cut down the harmful effects on the quality of environment by the human activities.
3. To minimize the effects and sources of pollution.
4. To find out the best practices to promote the sustainability.
5. To increase the self-sufficiency.
6. Promote renewable energy usage and find out cost saving methods.
7. To suggest measures to improve biodiversity within the college campus.
8. To monitor the energy consumption pattern of the college.

Steps of Audit

- 1. Audit was planned in the IQAC meeting held on:22/10/2020**
- 2. Audit Team: Anitha M Patil , Umesha, Shankrayya and Divya**
- 3. Background information**
 - **Total Campus Area: 2.05Acres**
 - **Built up area: 795.122 sq mt**
 - **Total no of employees: 25**
 - **Total No of students: 495**

Target Areas

- 1. Proper usage of water**
- 2. Air quality**
- 3. Energy consumption**
- 4. Waste Management Techniques**
- 5. Greenery**

Audit Methodology

- On-site survey

Audit report on air quality and greenery

Sl.No	Particulars	Findings		
1.	No of plants			
	-trees	06		
	-medium	10		
	-Small	50		
2.	Carbon dioxide emitting sources			
	1. Vehicles			
	<input type="checkbox"/> Four wheeler	01		
	<input type="checkbox"/> Two wheeler	20		
	2. Incineration (burning)			
	Waste	Nil		
	3. Power back-up units	07		
	Others			
3.	Ventilation of rooms for quality indoor air	Poor	Good	Excellent √

Measures initiated:

The NSS unit of our college has planted more than 60 saplings in the campus. The institution is planning to plant 50 more plants in the campus.

Water Source:

Sl. No	Particulars	Findings
1.	Water sources available in the campus	
	Wells	nil
	Bore wells	02
	Tanks	01
	Tap water	yes
2	Total no of taps	34
3	Leaking taps	Nil
4	Tank overflow is controlled by	CPVC pipe which is diverted to the plants.
5	Rain water harvesting adopted Roof top water harvesting Bunds Well recharge others	Roof top water harvesting
6	Water purifiers	00
7	Waste water outlets Wash room/toilet Kitchen Others	07
8	Waste water is Treated Untreated Recycled Diverted to plants others	Diverted to plants
9	Is the waste water of the campus polluting any water body?	No
10	Stagnant water leading to mosquito breeding?	No

Measures initiated:

The institution has made it mandatory for all faculties and students to save water and avoid the waste of precious resource. Care has been taken to ensure that there is no leakage in the taps.

Energy Consumption and Cost:

Sl No.	Particulars	Findings		
1.	Energy consuming devices			
	<input type="checkbox"/> Light bulbs			
	• LED	05		
	• LED Tube lights	76		
	• Bulbs	Nil		
	<input type="checkbox"/> Fans	55		
	<input type="checkbox"/> Computers	13		
	<input type="checkbox"/> Printers	03		
	<input type="checkbox"/> laptops	02		
	<input type="checkbox"/> AC	Nil		
	<input type="checkbox"/> Coolers	Nil		
	– Others			
	– Wi fi Routers	02		
2.	Avg monthly electricity bill	Rs 2500		
3.	Renewable energy sources utilised	-		
4.	Rooms get enough natural light	Poor	Good	Excellent √

Measures initiated

To save energy, the college is using LED Tube lights. Energy consuming bulbs are not used in the college. All the staff and students are instructed to switch off the fans, computers, bulbs when not in use. Students are strictly instructed to do proper usage of energy and energy saving measures.

Waste Management

Sl. No	Particulars	Finding
1.	Waste generating points	
	<input type="checkbox"/> Office	Yes
	<input type="checkbox"/> Classrooms	Yes
	<input type="checkbox"/> Toilet	Yes
	<input type="checkbox"/> Kitchen/pantry	Nil
	<input type="checkbox"/> Laboratories	-
	<input type="checkbox"/> Library	-
	<input type="checkbox"/> Garden	Yes
	<input type="checkbox"/> Outdoor	Yes
2.	Types of waste generated	
	<input type="checkbox"/> Wet	Yes
	<input type="checkbox"/> Dry	Yes
	<input type="checkbox"/> Biodegradable	Yes
	<input type="checkbox"/> Biomedical	Nil
	<input type="checkbox"/> e-waste	Yes
3.	Disposal methods of waste	
	<input type="checkbox"/> Wet	The wet waste generated in the toilet, wash basin is disposed in the drainage.
	<input type="checkbox"/> Dry	Collected and put in the pit
	<input type="checkbox"/> Biodegradable	Collected and put in the pit.
	<input type="checkbox"/> Biomedical	Nil
	<input type="checkbox"/> e-waste	There is no much electronic waste. The e waste is handed over to the vendor

Measures initiated:

Paper waste is sold to the vendor for the recycling purposes. Wet waste from the toilet disposed through drainage.

Observations:

Our college campus is having good number of different trees and still the efforts have been made to increase the number of trees. We are continuously planting various plants. There are no major polluting sources in the campus. The building has sufficient ventilation and light. The college has both bore well and taps water sources. No major e-waste is generated. The college needs to promote renewable energy usage. The college campus is center of attraction in the Irakalgada village.

Action Taken:

The college is making efficient utilization of water sources. The waste water from the institute is not polluting any water body. Major Steps have been taken that water is not stagnated in the campus. NSS unit is taking care of all the activities of green and clean campus. The institution has taken steps to save energy by using CFL bulbs. Students have dedicated themselves to serve voluntarily to make green campus initiatives and energy saving efforts.


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