



K M AGARWAL COLLEGE OF ARTS COMMERCE AND SCIENCE

ACADEMIC SESSION 2018- 2019



ACKNOWLEDGEMENT

The green audit conducted by the K M AGARWAL COLLEGE OF ARTS COMMERCE AND SCIENCE is an internal audit that aims towards looking after a healthy environment. The initiative is taken up to complete the concept of environmental sustainability.

Thanks to all for providing us necessary amenities and co-operation during the audit that helped in making the audit, a success.

1.	Dr. Munish Pandey	HOD PHYSICS
2.	Dr. B.D. Patil	HOD CHEMISTRY
3.	Dr. Varsha Bobde	HOD BOTANY
4.	Dr. Raj Bhadur Singh	HOD ZOOLOGY
5.	Mr. Sujeet Singh	HOD COMPUTER SCIENCE
6.	Dr. Mahesh Bhiwandikar	HOD ACCOUNTANCY
7.	Dr. Anita Manna	HOD COMMERCE
8.	Dr. Ratna Nimbalkar	HOD ECONOMICS
9.	Mr. B.K. Mahajan	HOD Geography

AUDIT KEY STEPS

Discussion completed	Jan 2019
Field work completed	Feb 2019
Management response received	Feb 2019
Final report completed	March 2019
Report presented to the Management	April 2019

TABLE OF CONTENTS

1.	EXECUTIVE SUMMARY
2.	STATEMENT OF ASSURANCE
3.	SUMMERY OF FINDINGS
4.	OBJECTIVE AND SCOPE
5.	ABOUT THE COLLEGE
6.	AUDIT GOALS OF THE COLLEGE
7.	METHODOLOGY
8.	AUDIT FRAMEWORK AND DETAILED FINDINGS
9.	RECOMMENDATIONS
10.	SOME VISUALS OF THE GREEN CAMPUS
11.	DECLARATION

EXECUTIVE SUMMARY

In accordance with the Green Campus Evaluation Plan, K M AGARWAL COLLEGE OF ARTS COMMERCE AND SCIENCE planned for conducting a green audit of the college in January 2019.

The purpose of the audit was to make sure that the practices followed in the campus are healthy and environment friendly. With this in mind, the specific objectives of the audit were to evaluate the degree to which the Departments are in compliance with the applicable regulations, policies and standards and to ensure that the development of the college aims at sustainable development and green campus.

STATEMENT OF ASSURANCE

This audit is been conducted for the first time in the college. The audit procedure tried to meet the terms of International Standards of Internal Auditing.

In our decision, sufficient and appropriate audit procedures were completed and evidence gathered to support the precision of the conclusions reached and contained in this report. The conclusions are based on a comparison of the situations as they existed at the time of the audit.

SUMMARY OF FINDINGS

The main findings of the audit show that, in general, all the departments and students are aware about the need for environmental protection at a general level. It was also observed that a number of best practices such as maintaining garden, planting trees in the campus, vermi compost to ensure a proper waste management technique, etc. are followed in the campus. However, on detailed review, it was observed that, as the college is implementing Green Campus Policy for the first time, many of the practices followed in the institution are still in early stage and needs further nurture.

OBJECTIVE AND SCOPE

Green Audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The „Green Audit“ aims to analyze environmental practices within and outside (not in our purview) the college campus, which will have an impact on the eco-friendly ambience.

It was initiated with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. Later on, it is implemented as a measure to enhance a healthy environment to almost all the organizations.

Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit.

ABOUT THE COLLEGE

K. M. Agrawal College of Arts, Commerce & Science, Kaylan, affiliated to University of Mumbai and grant-in-aid from Government of Maharashtra was founded by Hindi Bhashi Jan Kalyan Shikshan Sanstha, Kalyan, in September 1994 with traditional courses B A, B Com & B Sc. College has its vision, mission & objectives according to the national policy which involves quality promotion and its sustenance.

The Leadership of the College i.e. Management and Principal are very dynamic, co-operative and supportive. They adopt proper quality policies and strategies and implement them by involving the faculty to upgrade the quality of the College. The faculty of the College is excellent and dedicated. The Internal Quality Assurance Cell of the College is also very active. The collective efforts of all the above have contributed a lot in achieving the excellence in terms of quality.

College introduced many UG and PG programs in emerging fields viz B Sc I T and Computer Science, Bachelor of Management Studies, B Com in Accounting & Finance and B Com in Banking & Insurance as job oriented courses. Programs of higher studies viz. M Sc in Chemistry, MA in History and Economics and M Com, have been introduced for progression of students to higher studies. College is also having Ph.D. Centres for Physics, Commerce & Economics.

College received ISO-9001:2008 Certificate on 19.11.2014. and upgraded to ISO 9001: 2015 on 01.11.2017 In its Cycle-2 Assessment and Accreditation process, NAAC Bangalore accredited the College at "A" grade with CGPA 3.03, on December 10, 2014. College is now striving to get the status of the "College with Potential for Excellence" by UGC.

	ATTRIBUTES	VARIABLES
COLLEGE	CAMPUS AREA	6200 SQMTR
AREA	BUILT UP AREA	6650 SQMTR
	STUDENTS	3226
	TEACHERS	97
	NON TEACHING STAFFS	74

AUDIT GOALS OF THE COLLEGE

- The college, has set up an environmental quality assessment body (GREEN CAMPUS) that aimed at performing the green audit of the institution. The main objectives of the audit are:
- More efficient resource management and provide basis for improved sustainability.
- To create a green campus.
- To enable waste management through reduction of waste generation, solid- waste and water recycling.
- To recognize the cost saving methods through waste minimizing and managing.
- To impart environmental education through systematic environmental management approach and Benchmarking for environmental protection.
- To Financial savings through a reduction in resource use.
- To Enhancement of college profile.

METHODOLOGY

The Green Audit taken up by the K M AGARWAL COLLEGE OF ARTS COMMERCE AND SCIENCE has been divided into three stages:

The Pre Audit Stage:

The Management of the college has shown the commitment towards the green auditing during the pre-audit meeting. They were ready to encourage all green activities.

It was decided to promote all activities that are environment friendly such as awareness programs on the environment, campus farming, planting more trees on the campus, etc., after the green auditing.

The Audit Stage:

The Audit Stage encompasses of the team selection and the field works performed.

Looking after the unique structure, location and ambiance of the college, the Green Audit team focused on Material Issues pertaining to college which have highest influence on the Green Attribute of the College. The Audit stage also focused on the Methodology adopted.

The Post Audit Stage:

The post-audit stage ensures formulation of Draft findings and sent to management response. Since the audit is done internally, it was important to ensure management approval for the draft. After getting draft approval, the audit team went for final report formulation.

AUDIT FRAMEWORK AND DETAILED FINDINGS

The following audit framework is used for conducting Green Audit in 2018 – 19 the framework also lists the findings and observations for every criterion.

Control objective	Control(s)	Audit Observation
Water Management	Repair sources of water leakage, such as dripping taps.	Regular checking and maintenance of Taps & Pipelines are done to control water wastage.
	Minimize wastage of water and use of electricity during water filtration process, if used, such as Aquaguard filter.	Yes, the college has filters, coolers Installed in alternate floors.
	Use an efficient and hygienic water mechanism to minimize the loss of water during	Tube Well Water Is Used For Plantation and W.C.
	Install water recycling mechanism.	YES
Energy Management	Appreciate that it is preferable to purchase electricity from a company that invests in new sources of renewable and carbon-neutral electricity	Yes CFL/ SOLAR PANEL is installed Other than MSEDCL electric supply.
	Look in to the possibility of on-site micro-generation of renewable electricity.	Solar energy is used
	Give preference to the most energy efficient and environmentally sound appliances available, this includes only using energy-saving light bulbs	Yes, use of CFL lights is implemented to save energy.
	Encourage staff, students and conference guests to save energy through visible reminders, incentives and information to increase awareness. This particularly concerns turning off electrical appliances when not in use.	Yes, the college has put several Reminder notes in classrooms and other relevant places to turn Off electric appliances when not In use.
	Monitor and understand the importance of different sources of college energy consumption.	The college tries to put the main switch off when there is no need of electricity. Floor Peons are deputed to turn off the switches after lectures

	Ensures that all electronic and electrical equipment's, such as computers, are switched off when not in use and is generally configured in power saving mode when such option is available	It is practiced regularly and switching off of computer and appliance is practiced when not in use. Lab attendance are in lab to look after the above.
--	--	--

GREEN CAMPUS	Establish a Garden in the campus	College has started to develop the campus as green zone
	Encourage the faculties and students to plant trees in the garden.	Has suggested college students and teachers to plant more saplings.
	Minimize the use of fertilizers and pesticides in college grounds, opting for the use of vermin compost produced on site wherever possible.	Moderate amounts of bio-fertilizers are used in the college.
	Ensure that all cleaning products used by college staff have a minimal detrimental impact on the environment, i.e. are biodegradable and non-toxic.	Negligible amounts of washing liquids are used in the college and all the toilet cleaners are eco-friendly.
	Dispose the chemical waste generated from the laboratories in a scientific manner	Most of the waste generated is water-soluble and ultimately disposed through normal sewage system, diluted largely so bio magnifications is negligent.

WASTE MANAGEMENT	Make full use of all recycling facilities provided by Gram Panchayat and private suppliers including glass, cans , white coloured and brown paper, batteries, print cartridges and furniture	EVS Department conducts special drive for E – waste collection & Disposal.
	Compost or cause to be composted all waste, green waste and non-recycled collected from kitchens, gardens, offices and rooms.	The college has set up a compost plant that ensures proper treatment of all organic wastes.
	Recycle or safely dispose of dry wastes, computers and electrical appliances.	All dry wastes (paper, metal, glass, other dry waste, e-waste, etc.)are separated in different bins in the college and resell to the local vendor
	Provide sufficient, accessible and collection points for recyclable responsibility for recycling clearly allocated	The college has set up separate bins to ensure proper segregation and collection of the various wastes. The responsibility of recyclable waste is however still not taken up the college.
	Make specific arrangements for events, such as community events, seminars and conferences in order to both arise consciousness among students and others and also to minimize the waste produced and maximize what is recycled/reused	The college organized several seminar and community program by the departments to ensure both Consciousness and awareness among students and community members.
	Dispose all waste, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the environment	Yes, the college disposes all wastes, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the Environment.
	To recycle and reuse of kitchen wastes (from canteen and hostels) and garden waste	Kitchen wastes and garden wastes commonly are recycled to form Nutrient rich quality organic manure for agricultural purpose.

RECOMMENDATIONS

Criteri	Recommendation
Maximize the renewable flow energy to initiate healthy and continuous flow of energy	To set up more solar panel in the college to ensure Continuous renewable energy flow.
To channelize flow resource	To strengthen rainwater harvesting by digging Wells to accommodate rainwater flowing through the roof tops.
Maximize the proportion of waste that recycle & minimize the quantity of non- recyclable refuse	Implement a mechanism to recycle plastic waste in a scientific manner. To implement measures to recycle dry wastes.
Reduce energy consumption, especially of energy derived from fossil fuels	All the areas of the campus should be under the preview of solar renewable power control. Also, switch off drills are to be set up in the campus to ensure all the electric devices to be in power off measure.

Initiatives taken by the Institute to make the Campus eco- friendly

- Energy conservation is done by maximizing the use of natural light.
- Burning of Garbage in campus prohibited.
- Participation of students in Environment day and tree plantation drives even outside the college campus. Plantation is made on KDMC reserved plots too.
- Students are encouraged to maintain the Campus green and clean. Tree plantation procession are arranged, saplings are distributed in surrounding areas and co-op society too.

Efforts for Carbon neutrality -

- Student's trainings are conducted.
- Tree Plantation made mandatory, choice provided below

Data of trees in campus.

<u>Sr. No</u>	<u>Tree name</u>
<u>1</u>	<u>Ficus</u>
<u>2</u>	<u>Badam</u>
<u>3</u>	<u>Kalak</u>
<u>4</u>	<u>Palm Arka</u>
<u>5</u>	<u>Bottle Palm</u>
<u>6</u>	<u>Mohguni</u>
<u>7</u>	<u>Chapha</u>
<u>8</u>	<u>Apta</u>
<u>9</u>	<u>Coconut</u>
<u>10</u>	<u>Neem</u>
<u>11</u>	<u>Australian Jojoba</u>
<u>12</u>	<u>Gulmohar</u>
<u>13</u>	<u>Tikoma</u>
<u>14</u>	<u>Bottle brush</u>
<u>15</u>	<u>Shindada</u>
<u>16</u>	<u>Pomegranate</u>
<u>17</u>	<u>Rudraksha</u>
<u>18</u>	<u>Bakula</u>
<u>19</u>	<u>Mango</u>
<u>20</u>	<u>Lemon</u>
<u>21</u>	<u>Vegzara</u>
<u>22</u>	<u>Suruchi</u>
<u>23</u>	<u>Shevga</u>
<u>24</u>	<u>Mosambi</u>
<u>25</u>	<u>Custard Apple</u>
<u>26</u>	<u>Ramphal</u>
<u>27</u>	<u>Christmas</u>

SOME VISUALS OF THE COLLEGE GREEN CAMPUS

