

Excelssior Education Society's
K. B. College of Arts and Commerce for Women, Thane

Green Audit Report



Mith Bunder Road, Near Sadguru Garden, Kopri, Thane (E) 400603.

Green Audit Report of Excelssior Education Society's K. B. College of Arts & Commerce for women, thane, has been prepared by UAS based on visit to the college campus, checking records and interactions with faculty, non-teaching staff and students. No intrusive study was conducted during the audit.

The audit was conducted on **13th & 14th January, 2021.**

The green audit report presents green initiatives followed and taken up by the institution, and provides suggestions and recommendations to improve environmental sustainability.

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1. Introduction:

The Excelssior Education Society is located in the Thane region in the lush green environment near the coast. There is academic and creative ambience in the campus. It is an ideal complex with Punjabi language minority status. The aim is striving towards excellence in every field for all stake holders.

Excelssior Education Society is a trust established in 1978, dedicated for the cause of education and makes all efforts for the upliftment of society and nation. We are the only Women's institute in the Thane region with 'A' grade by National Assessment and Accreditation Council in 2013. This speaks of the high quality of the institute.

K. B. College of Arts and Commerce for Women offers Bachelor of Arts and Commerce degree to young girls and also Bachelor of professional courses like Bachelor in Management Studies, B.Com (Accounting and Finance), B.Sc (Information Technology). It also offers Masters in Commerce with specialization in Advance Accountancy.

The institute has competent and devoted faculty and staff who aspire to take the institute to its peak and motivate the students towards excellence. There is research environment in the campus and faculty is involved in publications, seminars, conferences and research projects.

The vision of the institute "Smaskrita Stree Parashakti" the enlightened woman is the true strength of the society and nation supports the national policy for empowerment of women and we make all efforts for the overall development of our girls. The K. B. girls are sincere towards their academic pursuits and also competent in their co-curricular and extra-curricular activities. The college has a number of committees and academic excellence is achieved through various measures like academic monitoring, attendance monitoring, term calendar and academic audit. Our students were selected

for the district level at the Avishkar Project conducted by University of Mumbai. The various cells provide a very rich environment for the girls and take care of their overall development. The National Social Service wing has been very active in performing selfless service for the society. We have started the extension wing from University of Mumbai. We have conducted a number of extension activities for the society. The social service initiated by the management about free articles and food distribution for the poor residents of Yeoor schools was a very noble exercise. The social services like visit to orphanages, old age homes, hospitals are a regular feature for the students.

The departments and different committees conduct a large number of activities for the growth and development of the students.

The sports events both outdoor and indoor are a great attraction for the girls including the annual cultural festival Harsh Utsav wherein students display various talents.

The college has a rich research culture. The K. B. College has an extremely rich scenario for the training and placement activities. There are various sessions throughout the year for the career guidance for all students.

The college tries to incorporate a strong value system in the students for which a number of activities are conducted and a lot of values based books have been placed in the reference section in the library.

There are many promises to be fulfilled and K. B. family is making all efforts to impart best of everything to the young generation. We are trying to compete with the modern times and aim for one of the finest institutions in the region with the support of everyone.

During Audit, UAS team interacted with following stakeholders:

Name	Department
Dr. Renu Trivedi	Principal
Dr. Sumathi B.	Vice Principal
Dr. Seema Jha	IQAC Coordinator
Ms. Sunanda Bhasagare	Head of Dept (Mathematics, statistics & computer)
Dr. Usha Bhandare	Assistant Professor (Commerce)
Mr. Sandip Parte	office superintendent
Ms. Janet Dsouza	Clerk
Mr. Rohit Kanojia	Library Assistant
Mr. Namdev Suryavanshi	Peon
Ms. Jerestine Landers	Student
Ms. Priya Gawai	Student

1.Environmental Sketch:

Harbour line and central line are in close vicinity to the college campus. The land in campus is exclusively used for educational purpose. The institute is readily accessible with public transport by road beside the auto rikshaw are readily available near college gate. The college has extensive parking area for these who came to college through two and four-wheeler.



K. B. COLLGE CAMPUS

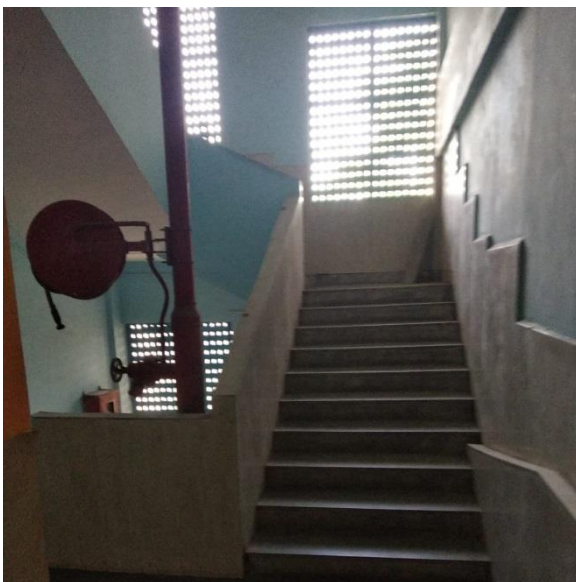
2.Green Audit:

For Green Audit following 13 major areas (including their subsections) were covered and compliance/ initiatives under these areas were verified/ validated.

- Ventilation, Light and Air Circulation Design
- Water Management
- Wastewater Management
- Air Quality of campus:
- Efficient Energy Management:
- LPG Consumption:
- Green Landscape:
- Optimum Paper Management:
- E-Waste Collection Drives:
- Waste Management in campus:

3.1 Ventilation, Light and Air Circulation Design

- a) Classrooms, Labs and Library have high ceiling with wide doors. Classroom windows are kept open to adequate daylight.
- b) Classroom walls, corridors and labs are well painted with descent skirtings for cleanliness and hygiene. This enhances the daylight received.
- c) Curtains are provided on some of the windows to avoid glare.
- d) Laboratories are provided with exhaust fans to disperse heat.
- e) Stair cases receive daylight through special openings (Jali's).



Staircase



Airy and Ventilated Class rooms

3.2 Water Management:

- a) Thane Mahanagar Palika (TMC) supplies water to the College. TMC charges ₹ 30 per 1000L of water. The water consumption data for period December 2019 to November 2020 is 340000
- b) Water received from TMC is stored in a storage tank (capacity 1LAC L) on ground floor and is pumped to the tank located on building terrace (35KL capacity). From

35 KL tank, water is distributed to washroom basins and laboratories and also used for drinking after purification.



Pump Room

c) Water coolers & purifiers are installed at drinking water supply points.

d) Water from air conditioning unit and reject water from water purifiers is used for watering plants within premises.

3.3 Wastewater Management:

- a) There are multiple washroom on every floor for students in all buildings. There are exclusive washrooms for faculty and staff(Ladies and gents separate).
- b) Sanitary wastewater generated from washrooms is connected to sewerage system provided by TMC.
- c) Wastewater from canteen and air condition is used for horticulture purpose in the college campus.



Drainage Pipe Lines

3.4 Air Quality of campus:

Ambient Air Quality was monitored at 3 Locations.

Sr. no.	Sample no.	Location
1	L1	Ground Floor Near Temple.

2	L2	Ground Floor Near Security Cabin
3	L3	5 th Floor near Open Terrace.

(Performing Air Quality Monitoring at only 3 Locations is seriously inadequate considering the area of the Campus / Building of the institute).

The Ambient Air Quality Monitoring was performed by open bottle method.

The Bottle kept at location open for 24 hours.

The Ambient Air Quality Monitoring was performed by **UAS Pvt. Ltd**

The results are as under.

Test Parameters	Unit	Specification limits as per CPCB	Sample 1 L- 1	Sample 2 L - 2	Sample 3 L - 3
Sulphur Dioxide (So₂)	Mg/m ³	80	07	09	10
Nitrogen Dioxide (No₂)	Mg/m ³	80	06	11	09
Particulate Matter (pm 10)	Mg/m ³	100	23	36	32
Particulate Matter (pm 2.5)	Mg/m ³	60	31	44	38
Carbon monoxide (CO)	Mg/m ³	02	0.005	0.004	0.002

(All Values are found within the CPCB limits)

Diesel Generator is not used Frequently.

Stack Emissions from the Diesel Generator stack is not performed.

3.5 Efficient Energy Management:

Total Consumption of Electricity is considered from the Meter reading showing in the Electricity Bill.

Electricity used for

- Tube light, light & Fans, Air conditioners, computers & printers.
- To run the utilities.

The details of the Electricity Units consumed from January 2020 to December 2020 are as below

Sr. No.	Month	Unit Consumed
01	JAN 2020	2344
02	FEB 2020	3182
03	MAR 2020	3182
04	APR 2020	2660
05	MAY 2020	2660
06	JUN 2020	2660
07	JUL 2020	2660
08	AUG 2020	2271
09	SEPT 2020	158
10	OCT 2020	38
11	NOV 2020	36
12	DEC 2020	72
TOTAL		21923
Monthly Average		1826.92

Power Generation by running the 63 KVA Diesel Generator.

Monthly Average Consumption of Diesel is not more than 15 liters of Diesel



Measures taken for Energy/Electricity Conservation.

- 1) Replacing the conventional Florescent Tube Light with LED Tube lights. (nearly 70% are replaced).
- 2) Replacing the CFL Blubs with LED Bulbs. (nearly 80% are replaced).
- 3) Solar Power Generation. Solar Power Generation of 80 KW.

Periodic Maintenance of the Diesel Generator to get Optimum performance



3.6 LPG Consumption:

Canteen facility is present in campus. In the Canteen depending on the semester schedule on an average 10 LPG Cylinders Per month are required. There is no other application of LPG Cylinders in the Institute.

3.7 Green Landscape:

- a) Painted rooms & corridors. Light colour flooring to improve lighting conditions
- b) Campus is located at the far end connecting lane which provides a quiet and noise free environment. Peaceful ambience encouraging the academic and educational environmental. The campus is far off from traffic movement and hence there is no noise pollution till far off vicinity.



Lush Green Campus

Green cover area in the campus is 70% of the Open space. It is 1,161 Sq. mts.
Following are the trees planted in the campus.

Tree plantation drive was undertaken by NSS unit and Nature Club of the Institution.

f) The age-old huge trees & maintained gardens in campus helps in reducing temperature and minimizing temperature.

Banana	Banyan
Neem	Peepal
Bael	Mango
Jamun	Jackfruit
Chiku	Coconut.
Gulmohar	Various Vegetables.
Ashoka	Various Flowering Plants



3.8 Optimum Paper Management:

Being academic institution, waste paper is the main solid waste generated in the premises. The College has taken UASs to minimize and avoid paper usage.

It was observed that:

- a) The softcopies and digital communication is encouraged for interdepartmental purpose however for document records in unavoidable circumstances print and photocopies are taken on rough paper for use of paper and prints are

- b) encouraged on both sides. However, whenever possible digitization and scanning is encouraged, specially where university government of Maharashtra is required.
- c) E- Library facilities with INFLIBNET N-List.
- d) Offline e-resources such as CD-ROMS and DVDs are available on selected topics in the library. Library is in the process of initiating E-book system.
- e) Internal notices or communications are through E-mail/SMS and whatsapp group. Notices are displayed on
- f) College website for college stake holders.
- g) Faculty and administration staff uses old papers and envelops for internal usages as rough work, file markers, page separators etc.
- h) Whenever necessary, the office notices are displayed on notice board. Paper notices are displayed on the notice boards .The dissertation reports, journals, and answer papers are stored as per the University rules. Most of the storage is in library and staff room. The old answer sheets are stored as per rules of university in stock room and record room and disposed after the stipulated time.

3.9 E-Waste Collection Drives:

- a) K. B. College is digitalized to a large extent. This includes classrooms, library, internal mails etc.
- b) The College has 135 Personal Computers, 6 printers.
- c) E-waste management is done by extension unit and e-waste is submitted to E-Carnation regularly. However, the collection of e-waste was restricted due to pandemic.

3.10 Waste Management in campus:

It was observed that:

- a) Wet waste and dry waste segregation is practiced in the premises. Separate bins are provided.
- b) Separate waste is directly handed over to the TMC.
- c) Biodegradable waste is deposited in compost for manure of campus plant.
- d) Sanitary Pad vending machine are installed in ladies washroom.
- e) Dust bins are available in class room.
- f) Scrapped benches are repaired and reused.



Sanitary pad vending machine



Segregation of Dry and Wet Waste

3.11 Safety and Security Measures:

It was observed that:

College is easily accessible from the main road. Staircase is provided for staff and students. Ramps are provided for physically handicapped people. Elevator is used by college staff and physically disabled students.

There are multiple exits provided for the main building. Staircases and classrooms

have wide windows, which can allow safe evacuation during emergency.

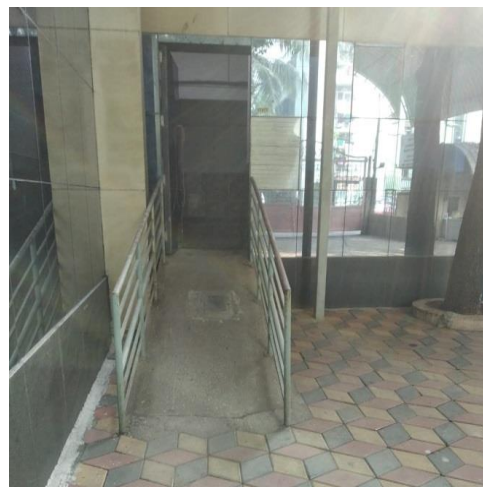
Since the access and staircases are wide and uncluttered, it is possible to have a safe evacuation during emergency.

Fire extinguishers and firefighting equipments are provided for emergency. They are inspected and serviced by fire protection service company annually.

All teaching and non-teaching staff have undertaken training by fire protection service company.



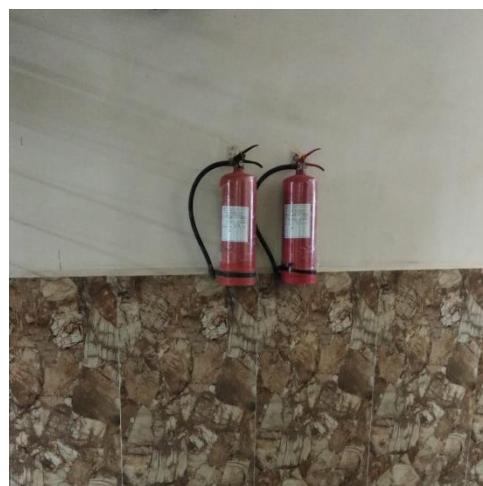
Fire Alarm



Ramp for Physically Challenged



Elevator



Fire Extinguisher

3.12 Green Initiatives:



Paper bag distribution in collaboration with TCS



Best out of waste: Human Touch for Wild Birds



E-Waste disposal in collaboration with E-Incarnation



Anti-Plastic Drive



Anti-Plastic Drive with support of Thane Municipal Corporation

RECOMMENDATIONS/ SUGGESTIONS

The improvement in energy consumption is important and all rooms and lab switch boards should have a diagram regarding location of respective fans and lights in order to operate the required terminal. Students should be educated about switching off the unrequired fans and lights and regular activities should be planned for raising awareness particularly among students.

Regular rainwater harvesting techniques are required in every institution. Save water techniques like installing water saving faucets would help in minimizing the water usage and continuous notices should be circulated to educate all stakeholders.

Similarly, the solid waste management is also important. The paper usage should be minimized and digitization related measures encouraged. Recycling is popular measure in this regard.

Under the green initiatives, the students should recycle the books, clothes, and other materials which can be used by the needy students. The recycling of solid and e-waste management is an ideal current practice for all institutions.

The separation and reuse of waste like composting is prominent measure in this regard. Organizing anti-plastic drives and e-waste drives to their optimum should be a regular practice. The students should be educated about the measures and efforts taken to indicate the appropriate wins.

Thus, the environment committee should accelerate their practices to maintain records and achieve their targets. Detailed audits would help them setting and achieving their goals.

All this would help the institution to be a part of social and national cause regarding their environmental commitments.

DECLARATION

I AGREE WITH ALL THE OBSERVATION AND RECOMMENDATION IN THIS REPORT.



SIGNATURE OF PRINCIPAL/CAMPUS DIRECTOR


Principal
K. B. College of Arts & Comm
Kapur, Thane (E.)