



Sadakathullah Appa College

*An Autonomous Institution, Re-Accredited by NAAC at an 'A' Grade, *ISO 9001 : 2015 Certified*

AQAR

(2021 – 2022)

CRITERION VII

INSTITUTIONAL VALUES AND BEST PRACTICES

7.1.6 QUALITY AUDITS ON ENVIRONMENT AND ENERGY

UNDERTAKEN BY THE INSTITUTION

WASTE AUDIT

Submitted to

THE NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC)



Waste Audit



5. Waste Audit

Waste is an inevitable part of our lives. Over the years as the awareness about waste management techniques has given a rise to rethink how the waste can be avoided from being sent to the landfills. The audit provides an approximation of the types of waste generated, location of waste collections, disposal techniques used, waste segregation methodologies adopted, waste management strategies that are and implemented in addition to the newer ways the can be adopted aiming to make the premise clean and sustainable. Here sustainable refers to a broader aspect to analyse whether the current techniques are having positive or negative effect on the stakeholders of the premises.

5.1 Waste produced

The types of waste collected in the campus are as follows. These are separated before processing and not given to the local Corporation. The details of the quantity and type of waste are as follows.

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| S. No. | Type of waste | Source and quantity | Current Disposal method | Can be treated/ recycled? | Methodology |
|--------|-----------------------------|--|--|---------------------------|--------------------------------------|
| 1 | Solid waste | Toilets–Biodegradable waste of 25-30kg per week | Small biogas plant | Yes | CONTINUE - with the current practice |
| 2 | E-waste | Computers - Non-biodegradable waste as per the annual year usage | Given to the Vendor | Yes | CONTINUE - with the current practice |
| 3 | Dry waste in form of leaves | Open space & plantations, papers - Non biodegradable waste of 20kg per week | Vermicompost pits and reused as fertilizer | Yes | CONTINUE - with the current practice |
| 4 | Liquid waste | Toilets, washbasins – Around 200 – 250 litres per week during general times and 50 litres at present | TREATED - Waste water treatment plant | Yes | CONTINUE - with the current practice |
| 5 | Bio-waste | Premises – general quantity (Sanitary vending machine) | Sanitary vending machine and incinerators. | Yes | CONTINUE - with the current practice |

Table 6: Summary of the types of waste produced in the premises

5.1.2 Bins summary

There are 192 Dustbins in the premise with varying volume. The analysis of the current dustbins is presented below.

5.1.2.1 Dustbins study as per the Building wise location

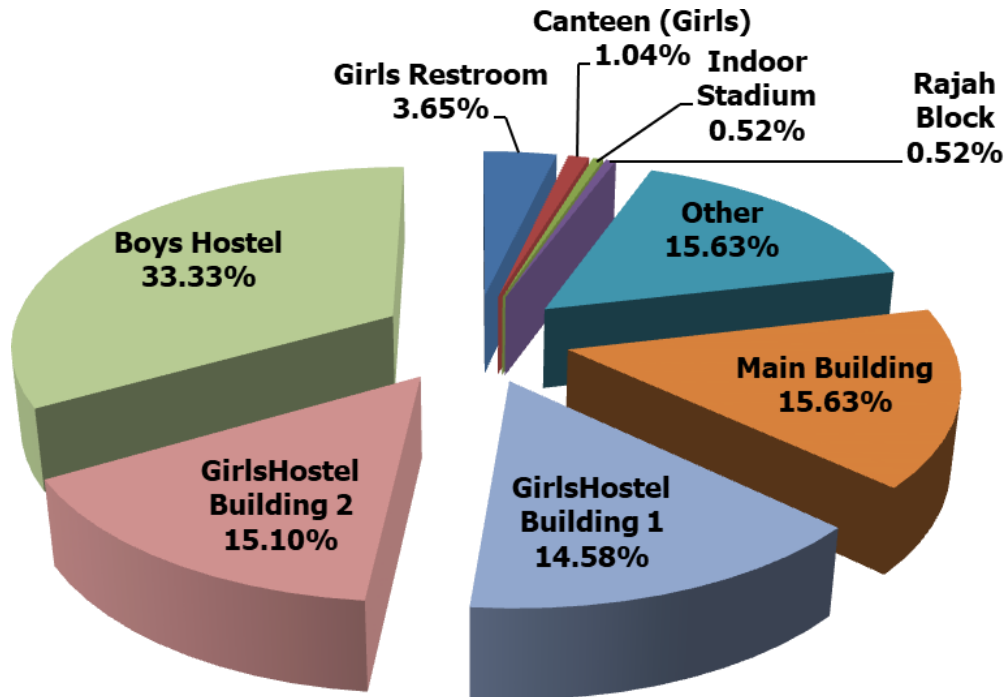


Figure 5: Analysis of dustbins as per the floor-wise location in the premise

The above analysis shows **33% bins are present in the Boys Hostel in 64 nos., 15.63% of bins are present in Main Building and other areas in 30 nos. each, Girls Hostel Building 2 has 29 bins at 15.10% whereas Girls Hostel Building 1 has 28 bins at 14.58% the Girls Restroom has 7 bins at 3.65% whereas the Canteen area for Girls has 2 bins at 1.04% and the Indoor Stadium, Rajah Block have 1 bin each at 0.52%**

5.2 Waste handling

Quantification wise as per survey it was found that the Solid, Dry leaves collected is approximately 6,000 kg per week. The liquid and hazardous waste (septic tanks) is approximately 20,000 litres per week. The waste produced on campus is segregated. The staffs are very well trained and do an excellent job. **We observed the concern and dedication the entire Team shows towards the College management aspect. We highly appreciate these efforts and way of working.**

5.3 Waste management

5.3.1 Summary of the waste management practices as per data verification

The detailed data shared by the College about the measures taken (Common for most of the Buildings in the premises – undertaken by the Management) is summarised below:

5.3.1.1 Solid Waste management

The Institution deploys solid waste management by implementing the waste segregation rules. Dustbins are placed in every corridor, canteen and at different locations in the campus. Under the supervision of the campus manager, sweepers are involved in collecting the waste generated in the campus. All waste/garbage collected by housekeeping personnel are segregated and incinerated weekly in the designated area away from the campus. To reduce waste at institute, students and staff are educated on proper waste management practices through lectures, advertisement on notice boards, displaying slogan boards in the campus. Colour coded dustbins are used for different types of wastes. Efforts have taken to produce compost manure from the canteen solid waste and waste from other sources.

5.3.1.2 Liquid Waste management

Institution adopts the systematic procedure for proper management and disposal of liquid waste. The wet waste from the college, hostels and canteen is used for the gardening and other purpose. Institution also conducts discussions with students to make them aware about the liquid waste management techniques.

5.3.1.3 E-Waste management

With the objective of creating an eco-friendly environment, the Institution manages E-waste such as computers and its peripherals by upgrading regularly to continue usage and to avoid its wastage. The E- waste collected is stored in store room and disposed every year accordingly. Old monitors and CPUs are repaired by our technician and reused

5.3.2 Summary of the waste management practices observed during the site visit

The college reuses the papers. It was informed newspapers were given in bulk to Raddi and not to Municipal Corporation **thereby not adding to landfill site.** Ample measures are taken to maintain hygiene. **No smell problem or health related issues due to the waste are there.** There are adequate numbers of bins present in all parts of building. **The waste does not pollute the ground or surface water.** The wastes from toilets are discharged to main drains through underground covered channels (Safety Tanks) thus avoiding any incident. **There is no problem of air pollution from waste as informed.**

5.4 Survey Results

Note about the review-rating survey

The Participants were asked to review (Though an online mode) the practice on a scale of 1-5 with scale components as follows:

- Scale 1 – Poor
- Scale 2 – Satisfactory
- Scale 3 – Good
- Scale 4 – Very good
- Scale 5 – Excellent

The figures in each of the columns of graph depict the Number of participants responses in numerical (Percentage of the participant response) – For example 101 responses (44.5%)

Rating for the views regarding the Waste management practices adopted in College, following is the result received.

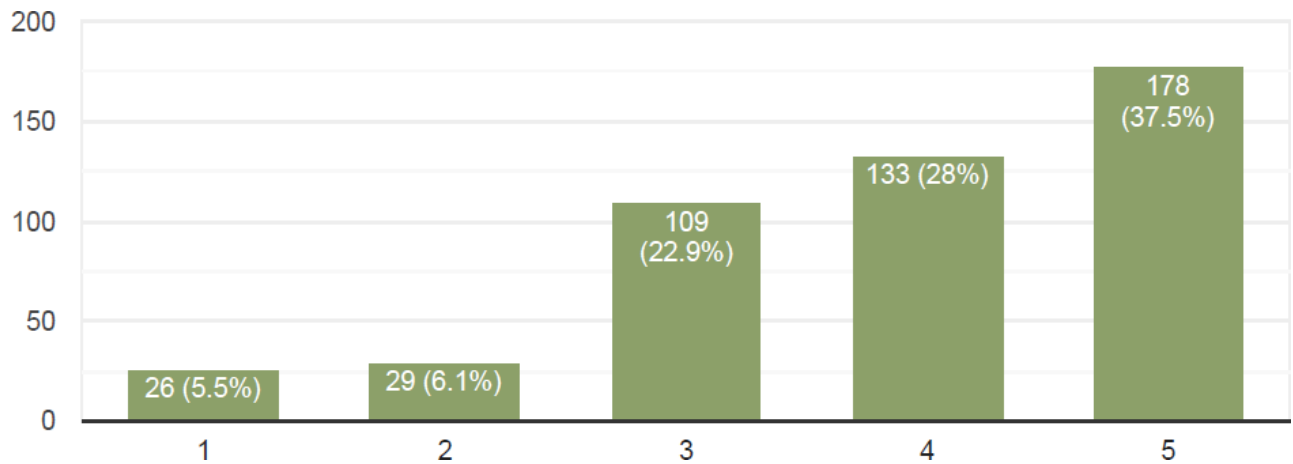


Figure 6: Waste management practices in College

There were mixed responses received the equal also the highest was for **rating 5 (Excellent) for 38% and rating 4 (Very good) at 28%**

5.5 Recommendations for a Sustainable Habitat

The following practice can be adopted for further up gradation.

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- a) **Zero Waste** - The College can undertake a zero organic waste protocol. The following practices can be adopted as part of the same. The food waste generated by the students and staffs are taken by them to their own home, so that, minimum waste is generated inside the premises.
- b) **Dustbins at every 100m** - There should be dustbin at every 50-100 in the open spaces

On-site investigation and physical verification

Waste management practices and the lush green and clean premises

