



## Food Waste Management, Utilization, and Hostel Operations at JSS Academy of Higher Education & Research

### Introduction

At **JSS Academy of Higher Education & Research (JSS AHER)**, sustainability is not just a goal but a core part of our operational strategy. Through innovative systems of **food waste management**, we aim to reduce waste, promote responsible resource utilization, and create an eco-conscious campus. This comprehensive report highlights the institution's initiatives in **tracking food waste**, generating **biogas for cooking using the kitchen waste**, and empowering students through **student-led committees** responsible for hostel operations. These initiatives reflect our unwavering commitment to sustainability, student welfare, and a cleaner environment.

### Food Waste Tracking System

JSS AHER actively tracks food waste across its six hostels and various dining facilities, focusing on minimizing both kitchen waste and plate waste. This comprehensive monitoring system includes regular checks on the amount of food prepared, served, and wasted, with logs kept identifying trends and areas needing improvement. Through active involvement, students contribute to this initiative by reporting leftovers and providing feedback.

### Statistics and Key Data (June 2024 to May 2025):

1. **Total Food Waste Generated:** 1,00,416 kg
2. **Campus Population (Hostel Residents):** 2,103 students
3. **Average Waste per Student:** 47.74 kg annually
4. **Average Daily Waste per Student:** 0.13 kg/day

### Monthly Waste Analysis:

The total food waste generated varies across hostels, with JSS Medical College (JSSMC) Girls Hostel generating **49,652** kg and Boys Hostel **22,199** kg, showing higher waste levels than other hostels.

### JSS Medical College Girls Hostel – Food Waste Breakdown

For the academic year, the **total food waste generated at JSSMC Girls Hostel was 44,731 kg**. The waste is categorized into three main types as follows:

- **Student Plate Waste:** 12,221 kg
- **Kitchen Vegetable Waste:** 6,181 kg
- **Kitchen Leftover Waste:** 26,329 kg

**Statistics of total food waste generated from the hostels at JSS AHER for 2023-24:**

#### Total Food Wastes

In KG

Sl. No	Month	JSS MI Campus Hostels		JSSCPM Hostels		JSSCPO Hostels	
		Boys Hostel	Girls Hostel	Girls Hostel	Boys Hostel	Girls Hostel	Boys Hostel
1	Jun-23	4104	2055	254	759	0	195
2	Jul-23	4360	2250	394	1169	0	255
3	Aug-23	3810	2470	492	1600	130	445
4	Sep-23	4062	3330	502	1519	462	170
5	Oct-23	3796	3330	530	1501	452	120
6	Nov-23	3676	2340	265	1433	441	170
7	Dec-23	3426	2090	284	1285	324	75
8	Jan-24	3664	2230	1036	813	60	0
9	Feb-24	3894	3050	1633	1063	237	150
10	Mar-24	4281	2880	1712	943	326	273
11	Apr-24	3705	2850	1513	909	155	176
12	May-24	1953	3070	1520	881	248	243
	<b>Total</b>	<b>44731</b>	<b>31945</b>	<b>10135</b>	<b>13875</b>	<b>2835</b>	<b>2272</b>
Sl.no	Particulars		Total food Waste from June-23 to May-24 in KG's	Total no of Students residing in hostels	Amount of waste per student	No of wastage per students per day	
1	JSSMC Boys Hostel		44731	662	67.58	0.19	
2	JSSMC Girls Hostel		31945	286	111.53	0.31	
3	JSSCPM Girls Hostel		10135	302	33.52	0.09	

4	JSSCPM Boys Hostel	13875	175	79.29	0.22	
5	JSSCPO Girls Hostel	2835	220	12.89	0.04	
6	JSSCPO Boys Hostel	2272	310	7.33	0.02	
7	<b>Total</b>	<b>105793</b>	<b>1956</b>	54.10	0.15	

**Statistics of total food waste generated from the hostels at JSS AHER for 2024-25:**

**Total Food Wastes In KGs**

Sl · No	Month	JSS MI Campus Hostels		JSSCPM Hostels		JSSCPO Hostels	
		Girls Hostel	Boys Hostel	Girls Hostel	Boys Hostel	Girls Hostel	Boys Hostel
1	Jun-24	3,052	2,830	1,235	779	164	144
2	Jul-24	4,239	2,730	1,024	664	159	155
3	Aug-24	5,662	2,015	1,058	1,235	214	255
4	Sep-24	5,661	1,825	1,098	1,341	131	95
5	Oct-24	4,070	2,090	865	1,253	135	160
6	Nov-24	3,724	1,650	898	1,449	85	285
7	Dec-24	2,772	1,345	776	1,287	210	290
8	Jan-25	2,201	1,200	523	836	10	90
9	Feb-25	3,750	1,145	614	889	180	180
10	Mar-25	3,755	1,292	736	1,050	85	500
11	Apr-25	3,901	1,445	651	883	190	250
12	May-25	4,185	1,302	637	861	165	200
13	Jun-25	2,680	1,330	645	836	40.12	70
14	Jul-25	-	-	-	-	-	-
	<b>Total</b>	<b>49,652</b>	<b>22,199</b>	<b>10,760</b>	<b>13,363</b>	<b>1,768</b>	<b>2,674</b>

Sl.no	Particulars	Total No of Wastage from June-24 to Jun-25 in KG's	Total no of Students	Total wastage per students per month
1	JSSMC Girls Hostel	49,652	772	5
2	JSSMC Boys Hostel	22,199	424	4
3	JSSCPM Girls Hostel	10,760	292	3
4	JSSCPM Boys Hostel	13,363	189	5
5	JSSCPO Girls Hostel	1,768	192	1
6	JSSCPO Boys Hostel	2,674	234	1
7	<b>Total</b>	<b>1,00,416</b>	<b>2,103</b>	<b>19</b>

#### **Reduction in Food Waste – Comparative Performance (2023–24 vs 2024–25)**

JSS Academy of Higher Education & Research has demonstrated a positive and measurable reduction in hostel food waste across all campuses during the current academic cycle (June 2024 – June 2025).

In comparison to the previous year's total food waste of **105,793 kg (June 2023 – May 2024)**, the current year recorded **100,416 kg**, reflecting an **overall reduction of 5.08%**. This improvement has been achieved through strengthened monitoring mechanisms, enhanced student awareness, better menu planning, portion control strategies, and expansion of waste-to-value initiatives such as biogas conversion and livestock redirection.

Based on continued implementation of sustainable food management practices, the institution has set a structured target of achieving a **15% overall reduction (≤ 85,353 kg)** in the next cycle. This reflects JSS AHER's strong institutional commitment to SDG 12 (Responsible Consumption and Production) and campus-wide sustainability actions.

## FOOD COURT @ CAMPUS



### Biogas Generation and Food Waste Utilization

At JSS AHER, we convert a significant portion of our food waste into **renewable energy** through **biogas plants** installed on campus. This initiative is part of our ongoing sustainability drive, helping us reduce reliance on non-renewable energy sources and manage waste more effectively.

#### Biogas Plant Capacities:

- **200 kg capacity biogas plant** at the **JSS Medical Institutions (JSS MI)** campus.
- **50 kg capacity biogas plant** at the **JSS College of Pharmacy, Mysuru (JSSCPM)**.





- Through these biogas plants, **food waste is repurposed into biogas**, which is used as a **clean energy source** for cooking in campus kitchens. This not only reduces energy costs but also significantly lowers the institution's carbon emissions, contributing to a **greener campus**.

#### **Leftover Food Management: No Landfilling Policy**

In addition to biogas production, any **remaining food waste** is handed over to local **swine husbandries** as part of our waste recycling initiatives. By channeling leftover food to pig farms, we help avoid **landfilling** and further **minimize environmental impact**.

This comprehensive strategy ensures that our food waste is utilized to its fullest potential, either for **biogas production** or **animal feed**, making JSS AHER a model of **waste management** and **environmental responsibility**.



**The Food waste generated are weighed and carried in drums and subjected to composting at Gudalur, The Nilgiris.**

### **Strategies for Minimizing Food Waste**

Reducing food waste at its source is key to our strategy. At JSS AHER, several targeted measures are in place to minimize the amount of food discarded across our campus:

#### **1. Menu Planning with Nutritionists**

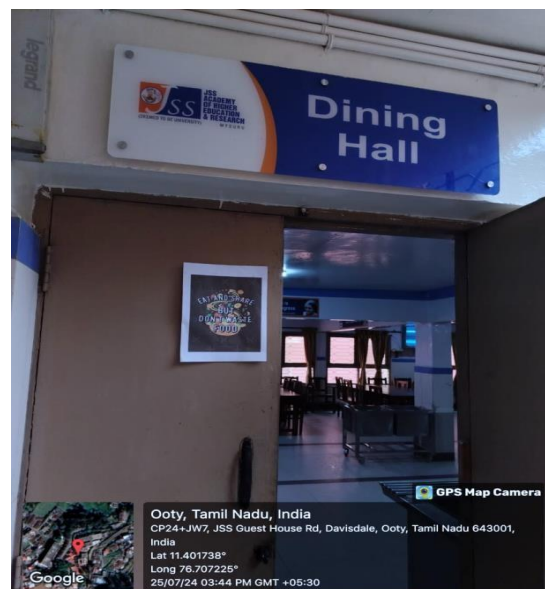
Our menus are developed in by the student representatives in collaboration with the hostel supervisors, Kitchen staff and professional **nutritionists**, ensuring that meals are not only **nutritionally balanced** but also designed to minimize leftovers. Menus take into account **student preferences** and **dietary requirements**, further reducing food waste.

#### **2. Portion Control**

Kitchen staff receive **training on portion control**, ensuring that each student is served the appropriate amount of food, reducing over-serving and unnecessary waste.

#### **3. Student Awareness Campaigns**

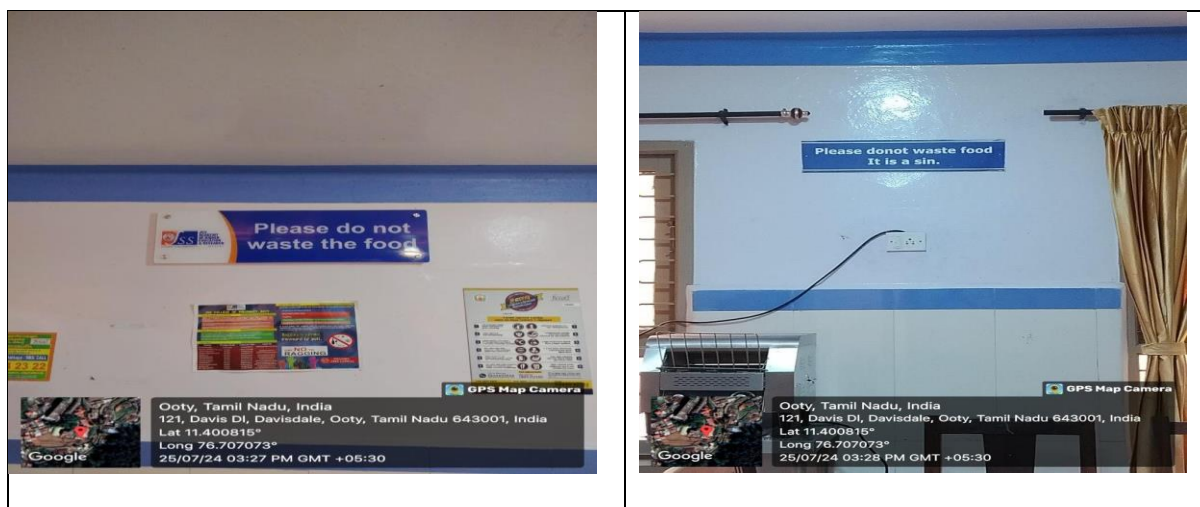
**Signboards, placards, and slogans** are displayed prominently in dining halls, encouraging students to **take only what they can consume**. These campaigns emphasize mindful eating and are part of our broader effort to instill sustainable habits in our students.



Posters promoting no food waste displayed in dining

“No Food Waste” posters

## Proverbs and Sign boards in the dining hall promoting “No Food Waste”



### 4. Feedback Mechanism

**Regular feedback sessions** are held with students to gather input on food quality, portion sizes, and menu variety. This helps us make **adjustments** that ensure meals are aligned with student preferences, further reducing the likelihood of wasted food.

### Hostel Review Committee and Student Engagement

At the heart of JSS AHER's food and hostel management system is the **Hostel Review Committee**. This committee is composed of **student representatives** and meets regularly to discuss key issues related to hostel life, particularly the **quality of food** and the **menu**.

#### Key Responsibilities of the Hostel Review Committee:

- **Food Quality Assurance:** Regular reviews of the food served ensure that meals meet the institution's high standards of **nutrition** and **hygiene**.
- **Menu Fixation:** An inclusive and student-centered approach to **menu design**, where students themselves decide the **menu**, ensures that the food offerings cater to the **diverse geographical** and **cultural backgrounds** of the hostel population.
- **Food Material Procurement:** The committee oversees **food material purchases**, ensuring transparency and quality.
- **Administrative Oversight:** The committee also addresses broader **administrative aspects** of hostel operations, from maintenance to student grievances.

By involving students directly in these processes, we ensure that hostel services are **tailored** to meet their needs. This **collaborative model** fosters a sense of **community** and **ownership**, helping students feel more connected to their campus environment.

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### **Food Waste Utilization for Organic Vermicomposting at JSS AHER**

In alignment with our commitment to sustainability, JSS Academy of Higher Education & Research (JSS AHER) has implemented a program to repurpose a portion of our food waste for organic vermicomposting. Food waste from our campus dining facilities, including kitchen vegetable scraps and plate waste, is collected and processed in our on-campus vermicomposting units. This initiative serves as a practical and eco-friendly solution, transforming waste into nutrient-rich compost that meets the manure needs of our campus gardens and plantations.

The compost produced not only reduces reliance on chemical fertilizers but also supports the growth and maintenance of greenery across the campus, including flower beds, landscaped areas, and student-led garden projects. This closed-loop system demonstrates our commitment to reducing waste while promoting sustainable agricultural practices on campus.

Through these efforts, JSS AHER fosters an environmentally responsible community that embraces waste reduction and resourcefulness, turning food waste into a valuable asset for campus sustainability.



## Conclusion

Through its comprehensive food waste management system, **biogas generation**, and **student-driven hostel operations**, JSS AHER demonstrates a strong commitment to **sustainability** and **waste reduction**. The institution's proactive approach to tracking food waste, utilizing renewable energy, and recycling leftover food for organic manure preparation ensures minimal environmental impact. Coupled with the involvement of

students in decision-making processes, these efforts create a **sustainable, inclusive,** and **waste-conscious** campus.

**JSS AHER** is continuously adapting and improving its strategies, ensuring that our campus remains at the forefront of sustainability and resource conservation, contributing to a greener and more responsible future.