



**VIT<sup>®</sup>**  
**Vellore Institute of Technology**  
(Deemed to be University under section 3 of UGC Act, 1956)

## **FOOD RECYCLING IN VELLORE INSTITUTE OF TECHNOLOGY**

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## ABSTRACT

This study explores the understanding and practices of food recycling among the Vellore Institute of Technology (VIT) community, examining knowledge levels, perceived challenges, and motivations toward sustainable waste management. Through a survey distributed to 43 students, we gathered insights on awareness of food recycling benefits, current waste disposal habits, and perceived challenges in implementing effective recycling initiatives. The survey revealed that while many respondents understand the environmental benefits of food recycling, limited awareness and engagement continue to hinder broader participation. Composting was widely supported as a feasible method for organic waste management, aligning with VIT's sustainability goals. However, misconceptions about recycling's purpose and lack of clarity on best practices suggest a need for targeted educational programs and awareness campaigns.

Key recommendations include establishing a campus-wide composting program, promoting food waste reduction through portion control, and fostering partnerships with local organizations to repurpose food surplus. By addressing these areas, VIT can advance toward a more sustainable campus environment, reduce its environmental footprint, and serve as a model for responsible waste management in educational institutions. This study underscores the importance of integrating community awareness, practical recycling solutions, and collaborative efforts to create a successful food recycling culture at VIT.

## INTRODUCTION

Food waste is a growing environmental and social challenge, with significant implications for sustainability, resource conservation, and climate change. In educational institutions like the Vellore Institute of Technology (VIT), managing food waste is essential due to the large student and staff population that generates considerable amounts of organic waste daily. Addressing food waste in a campus setting presents an opportunity to cultivate sustainable practices, promote environmental awareness, and reduce the institution's ecological footprint. This paper explores food recycling practices and perceptions at VIT, focusing on the awareness, behaviors, and attitudes of students and staff toward food waste management.

By engaging the VIT student community through a comprehensive survey, this study examines knowledge levels on food recycling benefits, challenges in current waste management efforts, and the community's readiness to support initiatives such as composting and responsible consumption. This research highlights composting as a preferred solution for managing organic waste, alongside the potential of campus-wide educational initiatives to increase awareness and involvement. Additionally, the study looks at how food recycling can benefit the campus environment, improve resource efficiency, and enhance local community engagement through partnerships.

Through these findings, this paper aims to provide actionable recommendations for VIT, including establishing a composting program, promoting portion control in dining and mess areas, and fostering student-led recycling initiatives. The insights gained from this research underscore the role of educational institutions in setting a precedent for sustainable waste management, ultimately contributing to environmental stewardship and responsible community practices on campus.

## RESEARCH METHODOLOGY

Our study focused on understanding how the VIT community thinks about and handles food recycling. To gather this information, we chose to create an online survey using Google Forms. This platform made perfect sense for our campus environment since it's easily accessible and allows everyone to participate at their convenience. The digital format also helped us collect and organize responses efficiently.

We put careful thought into designing our survey questions. We created 25 specific questions that covered several important areas of food recycling. These questions helped us learn about how much people know about food recycling, what they currently do with leftover food, what prevents them from recycling food, and what might motivate them to recycle more in the future. To get the most comprehensive information possible, we included questions with preset answer choices where participants could choose their preferred response. This gave us numerical data, we could analyze and get deeper insights into people's thoughts and experiences.

The survey was distributed electronically throughout the VIT community, reaching students from different backgrounds. In total, 43 people completed our survey. While this number might seem modest, it provided us with valuable perspectives from different student groups within our campus community. The responses gave us a good mix of viewpoints and experiences, helping us understand the broader picture of food recycling at VIT.

We chose this research approach because it offered the best way to gather honest, detailed information about food recycling practices and attitudes. The known and anonymous nature of the survey encouraged people to share their true thoughts and behaviours. Additionally, the structured format of our questions made it possible to compare answers across different groups and identify patterns in how our community thinks about and practices food recycling.

Our method was designed to do more than just collect data – it aimed to give us a clear understanding of the current state of food recycling at VIT and point towards possible improvements for the future. The quantitative data from multiple-choice questions helped us build a comprehensive picture of food recycling practices and attitudes on campus.

## LITERATURE REVIEW

Sahoo et al. (2024) [1] in their study “Insights into the management of food waste in developing countries: with special reference to India” provided a detailed analysis of food waste management in developing countries, focusing on India. The authors identified key causes of food waste, including inadequate infrastructure, inefficient supply chains, and poor storage facilities, which resulted in significant post-harvest losses. They emphasized the economic and environmental impacts, noting that food waste exacerbated food insecurity, caused financial losses, and contributed to environmental degradation through increased greenhouse gas emissions and resource depletion. The study highlighted policy gaps, calling for integrated approaches involving government, private sector, and community participation to tackle the issue effectively. The authors proposed technological solutions such as improved cold storage, digital tracking, and waste-to-energy systems, alongside efforts to promote public awareness and behavioral changes regarding consumption and waste. Their recommendations for infrastructure development, policy reform, and stakeholder collaboration offered valuable insights into sustainable food waste management in resource-constrained environments.

According to Agarwal et al. (2021) [2] in their paper “Food loss and waste in India: the knowns and the unknowns”, food loss and waste (FLW) in India is a critical issue that affected food security, rural incomes, and environmental sustainability. The authors emphasized that a significant portion of FLW occurred post-harvest and during supply chain stages due to inadequate infrastructure, poor storage facilities, and inefficiencies in transportation. They estimated that around 40% of food produced was lost before it reached consumers. This not only led to economic losses but also contributed to greenhouse gas emissions, as food waste decomposed in landfills. Despite the severity of the issue, the authors highlighted a major gap in reliable, granular data, particularly across different crops and supply chain stages, which hampered effective policymaking. While India had implemented some initiatives to address FLW, these were often underfunded and not optimally executed. The paper recommended a multi-faceted approach, including better infrastructure investment, improved post-harvest management, enhanced farmer education, and strengthened data collection processes. This study provided valuable insights into the complexities of FLW in India and underscored the need for targeted interventions to reduce losses and promote sustainability.

Ghosh and Upadhyay (2021) [3] in their study “Food Waste Management and Nutrient Recycling in a Sustainable Way - A Review.” mentioned food waste management and nutrient

recycling are crucial for promoting sustainability in food systems. They highlighted the alarming scale of food waste globally, which not only contributes to environmental degradation but also exacerbates food insecurity. The authors categorized waste management strategies into reduction, reuse, recycling, and recovery, emphasizing the importance of an integrated approach. They reviewed various methods, such as composting and anaerobic digestion, noting their potential for recovering nutrients from food waste. The paper identified barriers to effective implementation, including technological limitations and regulatory challenges, and called for increased public awareness and policy support. Ghosh and Upadhyay concluded that further research and collaboration among stakeholders are essential to develop innovative solutions for sustainable food waste management and to enhance nutrient recycling practices, thereby fostering a more resilient food system.

According to Kaur and Kaur (2022) [4] in their paper “Upcycled Food: An Innovative Solution to Food Wastage” upcycled food emerged as an innovative solution to mitigate food wastage, a pressing global issue characterized by substantial economic and environmental repercussions. The authors defined upcycling in the food context as the transformation of food waste into valuable products, highlighting its potential to not only reduce landfill contributions but also create new revenue streams for food businesses. They presented alarming statistics, indicating that a significant portion of food produced worldwide was wasted, leading to increased greenhouse gas emissions and resource depletion. Kaur and Kaur emphasized various upcycling practices, such as utilizing by-products like fruit peels and seeds to develop nutritious snacks and beverages. They noted that consumer awareness and acceptance played crucial roles in the market growth of upcycled products and identified challenges such as regulatory barriers and quality control. The authors advocated for enhanced research, policy support, and marketing strategies to promote the visibility of upcycled food, concluding that it could significantly contribute to sustainability efforts and food security by leveraging innovative approaches within the food industry.

Sinha and Tripathi (2021) [5] in their study “Trends and challenges in valorisation of food waste in developing economies: A case study of India” stated, the valorisation of food waste in developing economies, particularly in India, faced significant trends and challenges. The authors noted a growing recognition of food waste as a resource rather than merely a disposal issue, with various valorisation methods like anaerobic digestion and composting being increasingly adopted. However, they identified critical challenges that hinder effective valorisation, including a lack of awareness among stakeholders, inadequate waste management

infrastructure, limited investment in innovative technologies, and regulatory barriers. The socio-economic context of India influenced food waste management practices, emphasizing the necessity for community engagement and public education to enhance participation. Sinha and Tripathi (2021) recommended strategies such as improving infrastructure, fostering public-private partnerships, and developing supportive policies to encourage research and innovation in food waste management. Their study underscored the importance of collaborative efforts among government, industry, and communities in transforming food waste into a valuable resource, thereby contributing to sustainable development.

Pandey, Surjan, and Kapshe (2018) [6] in their paper “Exploring linkages between sustainable consumption and prevailing green practices in reuse and recycling of household waste: Case of Bhopal city in India” examined the relationship between sustainable consumption and prevailing green practices in the reuse and recycling of household waste in Bhopal, India. The researchers found a significant positive correlation between sustainable consumption behaviors and effective waste management practices, indicating that households actively engaging in sustainable consumption were more likely to participate in recycling and reuse initiatives. The results also highlighted that increased environmental awareness among residents positively influenced their recycling behaviors, leading to higher participation rates in waste management programs. However, the study identified several barriers to effective recycling, including insufficient infrastructure, lack of government support, and cultural attitudes toward waste. These findings underscored the necessity for policy interventions aimed at enhancing public awareness and providing improved waste management infrastructure. The authors suggested that integrating sustainable consumption practices into educational programs could further promote a culture of recycling and reuse, ultimately contributing to environmental sustainability efforts in the community. This research revealed the vital role that individual consumption behaviors play in shaping community-level waste management practices.

According to Kostecka, Garczyńska, and Pączka (2018) [7] in their paper “Food waste in the organic recycling system and sustainable development”, food waste represented a significant global challenge with substantial environmental, economic, and social consequences. The authors examined the role of organic recycling systems, such as composting and anaerobic digestion, in managing food waste and highlighted their potential to transform waste into valuable resources, thereby contributing to sustainability. They linked food waste management to the United Nations Sustainable Development Goals, particularly emphasizing Goal 12 on responsible consumption and production. The study identified several barriers to effective food

waste management, including a lack of awareness, insufficient infrastructure, and regulatory challenges. To overcome these obstacles, the authors recommended increased public education, enhanced waste processing infrastructure, and supportive policies to promote organic recycling practices. The authors concluded that integrating food waste management into organic recycling systems was crucial for achieving sustainable development and called for collaborative efforts among various stakeholders to effectively address the food waste issue.

Sharma, Mangla, Patil, and Uniyal (2021) [8] in their study “Analyzing sustainable food supply chain management challenges in India” stated that sustainable food supply chain management (FSCM) in India faced several significant challenges that hindered the effectiveness of food security initiatives. The authors highlighted the inadequate infrastructure, including poor transportation and storage facilities, which contributed to food spoilage and waste. They identified a lack of technological adoption among farmers and suppliers, along with fragmented supply chains involving numerous small-scale farmers, as critical factors that exacerbated inefficiencies. Socio-economic barriers, such as limited access to credit and varying education levels among farmers, further impeded the adoption of sustainable practices. The authors emphasized the necessity of government and institutional support to foster an environment conducive to sustainable FSCM, advocating for regulations, incentives, and investments in infrastructure. Ultimately, the study underscored the importance of a collaborative approach involving government, private sector, and farmers to address these challenges and promote sustainability in India’s food supply chains.

According to Bharucha (2018) [9] in “Tackling the challenges of reducing and managing food waste in Mumbai restaurants”, the challenges of reducing and managing food waste in Mumbai restaurants were examined, revealing significant environmental and economic impacts associated with food waste. The study utilized qualitative methods, including interviews and case studies, to identify barriers faced by restaurant operators, such as a lack of awareness regarding waste management practices, inadequate infrastructure, and cultural attitudes towards food consumption. While some restaurants had begun implementing waste reduction strategies, the author noted that these efforts were often limited by operational challenges and insufficient support from local government policies. Bharucha emphasized the need for a comprehensive approach that involved stakeholder engagement and education, highlighting the importance of collaboration between restaurants, waste management authorities, and the community to develop effective strategies for minimizing food waste. The paper concluded with actionable recommendations, including the adoption of innovative technologies and the



establishment of food donation programs, to enhance waste management practices in the restaurant sector of Mumbai.

Sridhar et al. (2021) [10] in their paper “Conversion of food waste to energy: A focus on sustainability and life cycle assessment” found the conversion of food waste to energy plays a pivotal role in promoting sustainability and enhancing waste management practices. The authors examined various technologies, including anaerobic digestion, incineration, and gasification, to assess their efficiency and environmental impacts. They highlighted that anaerobic digestion often provided the most significant benefits regarding greenhouse gas emission reductions and energy recovery. The study utilized life cycle assessment (LCA) to evaluate the environmental implications of each method, revealing that while anaerobic digestion was generally favorable, challenges such as economic viability and the necessity for appropriate infrastructure remained. The authors concluded that LCA is essential for evaluating the sustainability of food waste conversion processes and recommended supportive policies for the adoption of effective technologies that could lead to renewable energy production and reduced environmental impacts.

## **FINAL SUMMARY**

The literature review highlights that India's food recycling and waste management system faces significant challenges, with 40% of food being lost before consumption due to inadequate infrastructure, inefficient supply chains, and limited awareness. The researches indicate promising solutions including food upcycling and waste-to-energy conversion through anaerobic digestion. The success stories from cities like Bhopal demonstrate that proper facilities and awareness can improve waste management participation. The researchers also recommend focusing on infrastructure development, technological advancement, policy implementation, and public education, emphasizing that effective solutions require collaboration between government, private sector, and communities.

## DISCUSSION AND FINDINGS

### 1. What is the primary purpose of food recycling?

- A) To compost food into animal feed
- B) To reduce food waste and repurpose waste materials
- C) To avoid cooking more food
- D) To save money for food companies

This question assesses basic understanding of food recycling fundamentals. A significant 20 students correctly identified waste reduction as the primary goal. However, the 10 students who viewed it as avoiding cooking reveal a misconception about recycling's purpose, indicating a need for clearer education about its environmental aims. The 9 students choosing animal feed show partial understanding of recycling applications.

### 2. Which of these is a key benefit of food recycling on campus?

- A) It saves students money directly
- B) It reduces the environmental impact of food waste
- C) It decreases the cafeteria's workload
- D) It reduces food variety on campus

This question evaluates understanding of recycling's campus impact. A strong majority of 24 students recognized environmental benefits as paramount, showing good awareness of ecological implications. However, 7 students focused on personal savings and 8 on workload reduction, suggesting some view recycling through operational rather than environmental lens. This indicates a need for broader perspective education.

### 3. Which method is commonly used in food recycling for organic waste?

- A) Incineration
- B) Plastic repurposing
- C) Composting
- D) None of the above

This question examines knowledge of practical recycling techniques. The overwhelming support for composting (27 students) demonstrates strong awareness of proper organic waste management. However, 8 students confusing it with plastic repurposing reveals a concerning gap in understanding material categories. The responses suggest a need for practical demonstrations of different recycling methods.

**4. Which of these strategies could best raise awareness about food recycling among VIT students?**

- A) Hosting campus events and workshops on food sustainability
- B) Increasing the price of cafeteria meals
- C) Limiting food options available in the cafeteria
- D) Reducing cafeteria hours

This question explores preferred educational approaches. While 18 students supported interactive workshops, showing appetite for engagement, 12 suggested limiting food options, revealing a misunderstanding of awareness versus restriction. The responses indicate students prefer educational initiatives over punitive measures, though some confusion exists about effective awareness methods.

**5. What is a major challenge to implementing food recycling at VIT?**

- A) Insufficient food waste
- B) Limited awareness and engagement
- C) Lack of interest in environmental issues
- D) Excess food supply

This question seeks to identify perceived obstacles to implementing food recycling. Most students (18) recognized limited awareness as a barrier, indicating a collective understanding of the need for education. However, 5 students believe excess food supply hinders efforts, suggesting a lack of connection between food waste management and student behavior.

**6. Which of these options would best support food recycling on campus?**

- A) Using disposable cutlery and plates
- B) Initiating a composting program on campus
- C) Providing unlimited food portions
- D) Increasing canteen hours

The intent is to highlight feasible actions for enhancing food recycling. The dominant response of 26 students supporting a composting program shows a clear inclination toward tangible initiatives. However, responses advocating for disposable cutlery (7 students) reveal a misunderstanding of sustainable practices, indicating an area needing further education.

**7. How does food recycling directly benefit VIT's local environment?**

- A) By reducing pest issues
- B) By lowering air conditioning costs
- C) By reducing the amount of waste sent to landfills
- D) By encouraging more cafeterias

This question measures awareness of food recycling's local environmental impacts. A significant number (22) correctly identified landfill waste reduction as a benefit, showcasing understanding. However, 10 students focused on pest reduction, which, while relevant, misses the broader environmental perspective, suggesting an opportunity for deeper educational efforts.

**8. Who plays the most crucial role in the success of food recycling initiatives on campus?**

- A) The campus cleaning staff
- B) Cafeteria management
- C) Students and faculty
- D) External food vendors

The focus is on identifying who students believe is pivotal to food recycling's success. A plurality (16) highlighted students and staffs, reflecting an understanding of collective

responsibility. However, 11 students thought cleaning staff played a major role, indicating some may overlook their own impact in this initiative.

**9. How can students help to reduce food waste in the cafeteria?**

- A) By purchasing more food to share
- B) By only taking portions they can finish
- C) By using disposable containers
- D) By avoiding cafeteria meals

This question aims to encourage student responsibility in minimizing waste. An encouraging 28 students recognized the importance of taking manageable portions. However, the 6 students advocating for disposable containers show a misconception that waste management should avoid inconvenience, emphasizing the need for further awareness on sustainable practices.

**10. What is the main environmental impact of food waste in landfills?**

- A) Increased oxygen levels
- B) Production of greenhouse gases
- C) Reduced soil nutrients
- D) Increase in wildlife in urban areas

The intent is to understand knowledge about food waste's environmental consequences. The majority (19) correctly identified greenhouse gas production as a significant issue, showing awareness of environmental science. Meanwhile, 9 students seemed misinformed about urban wildlife impacts, reflecting a need for clarification on environmental concepts.

**11. Which is a sustainable outcome of implementing a composting program at VIT?**

- A) Increased revenue for the cafeteria
- B) Reduction in non-recyclable waste generation
- C) Need for more food vendors
- D) Decrease in student meal options

This question tests awareness of the broader benefits of composting. A strong response (24) recognized waste reduction, demonstrating understanding. However, 8 students incorrectly viewed increased cafeteria revenue as a benefit, indicating a potential confusion between waste management and profit generation, suggesting the need for clearer messaging.

**12. How does food recycling directly contribute to VIT's campus environment?**

- A) Improves green spaces through composting
- B) Lowers student cafeteria costs
- C) Enhances student academic performance
- D) Reduces cafeteria workloads

The aim is to assess understanding of composting's benefits to the campus ecosystem. Most students (21) recognized improvements to green spaces as a benefit, showing good knowledge. Yet, the minority who highlighted reduced workloads or costs reveal misconceptions about the direct ecological impacts of composting.

**13. Why is it important to raise awareness about food recycling at VIT?**

- A) To make recycling mandatory for all students
- B) To encourage responsible food consumption and waste management
- C) To increase food production on campus
- D) To reduce food portions in the cafeteria

This question assesses students' views on the necessity of food recycling education. The majority (19) identified responsible consumption as vital, indicating good insight, while 10 linking it to increased production reveal misconceptions. The responses suggest a need to clarify the relationship between awareness, behavior change, and environmental impact.

**14. What type of waste is ideal for composting?**

- A) Meat and dairy products
- B) Plastic wrappers
- C) Vegetable scraps and fruit peels

D) Metal cans

This question tests practical composting knowledge. The strong majority (27) correctly identifying vegetable waste shows good basic understanding. However, the even distribution of incorrect answers (5,5,6) suggests some confusion about compostable materials that needs addressing through practical education.

**15. In which area can food recycling practices be implemented on campus?**

A) Only in administrative offices

B) Cafeterias and dining halls

C) Classrooms only

D) Sports facilities

The intent is to evaluate student perceptions of where food recycling can occur. The majority (23) identified cafeterias as appropriate venues, demonstrating understanding. While the spread of other responses suggests some don't recognize the centralized nature of food waste generation, indicating need for better facility mapping.

**16. How can VIT make food recycling more appealing to students?**

A) By charging fees for excess food waste

B) By creating competitions around reducing food waste

C) By increasing food portion sizes

D) By restricting food choice options

This question examines methods to engage students in food recycling. A strong preference (20) for competitions highlights a desire for interactive engagement. The 9 choosing restrictions and 8 preferring fees indicate some support for punitive measures, suggesting need to promote positive reinforcement over penalties.

**17. Which of these products results directly from campus composting efforts?**

A) Compost for gardening

B) Processed foods for sale

C) Packaged materials

D) Recycled plastic items

This question examines understanding of practical outcomes. The 26 students identifying gardening compost show strong awareness of end products. The 8 choosing processed foods reveal misconceptions about composting's purpose, indicating need for clearer explanation of the composting process.

**18. Which action best aligns with responsible disposal of uneaten food in a recycling program?**

- A) Leave it for cafeteria staff to handle
- B) Separate it for composting or donation if possible
- C) Discard it immediately without sorting
- D) Store it indefinitely

This question evaluates waste management knowledge. The 26 students choosing separation demonstrate good understanding of best practices. The even distribution of other responses (6,6,5) suggests some uncertainty about proper disposal methods that needs addressing.

**19. What can be done with leftover food that is still safe to eat?**

- A) Throw it in the trash
- B) Distribute it to food banks or needy communities
- C) Mix it with non-recyclable waste
- D) Keep it for a week before disposal

This question explores food waste hierarchy understanding. The 23 students prioritizing food bank distribution show strong awareness of social responsibility. The 8 choosing disposal and 7 suggesting mixing with other waste indicate need for education about food waste reduction hierarchy.



**20. Which of the following campus initiatives would likely have the greatest impact on reducing food waste at VIT?**

- A) Installing more trash bins
- B) Launching a student awareness campaign on food recycling
- C) Decreasing the cafeteria's food options
- D) Raising food prices

This question seeks to identify perceived effective strategies for reducing waste. The 21 students supporting awareness campaigns demonstrate preference for educational approaches. The 9 choosing price increases suggest some support for economic deterrents, indicating need to promote positive over punitive measures.

**21. What resource savings are achieved through reducing campus food waste?**

- A) Reducing the need for packaging
- B) Conserving water and energy used in food production
- C) Lowering cafeteria energy costs
- D) Enabling more campus events

This question measures understanding of the benefits of minimizing food waste. A strong majority (22) identified conserving water and energy as key savings, indicating good awareness. However, the spread of other responses(9,7,6) suggests need to better explain the resource implications of food waste.

**22. What is an efficient way for students to participate in food recycling on campus?**

- A) By volunteering to sort and manage food waste
- B) By throwing away leftovers in regular trash
- C) By avoiding the campus cafeteria
- D) By eating faster

The focus is on evaluating practical ways students can engage with recycling initiatives. A significant number (19) supported volunteer sorting, showing eagerness to participate

actively. Yet, the even distribution among passive approaches (8,8,8) suggests need to promote active participation over avoidance.

**23. Which of the following practices aligns with food recycling efforts on campus?**

- A) Using portion control to avoid excess food waste
- B) Consuming only packaged foods
- C) Using only disposable cutlery
- D) Avoiding all fresh food options

This question aims to evaluate understanding of sustainable eating habits. A majority (22) correctly identified portion control as a responsible practice, suggesting good awareness. 8 responses advocating for disposable cutlery indicate some misconceptions about sustainability, underscoring the importance of further education on responsible consumption.

**24. What small personal action can students take to minimize food waste in everyday campus life?**

- A) Bring reusable containers for leftovers
- B) Request smaller portions when dining
- C) Consume only packaged snacks
- D) Avoid all perishable foods

The intent here is to explore practical actions for reducing waste. A strong majority (23) emphasized requesting smaller portions, demonstrating awareness of their role. 6 responses suggesting the avoidance of perishable foods highlight a potential misconception that all fresh food is wasteful, pointing to a need for better education on food management.

**25. How can food recycling at VIT enhance community engagement?**

- A) By promoting collaboration among students, staff, and local organizations
- B) By isolating recycling efforts to specific departments
- C) By minimizing interaction with external community members

D) By focusing solely on waste management without community input

This question evaluates perceptions of community involvement in food recycling. A majority (22) recognized collaboration as essential, indicating a positive outlook on community ties. However, the even distribution of other responses(7,8,6) suggests need to better communicate recycling's role in community building.

## CONCLUSION

The data reveals that there is a solid understanding and recognition among VIT students and staff about the benefits and necessity of food recycling. A significant number of respondents acknowledge that the primary purpose of food recycling is to reduce food waste and its environmental impact, showing an awareness of sustainable practices. Composting emerged as the preferred method for managing organic waste, underscoring the feasibility of implementing such initiatives on campus. Additionally, students agree that awareness-raising events and workshops could increase engagement with food recycling practices. However, challenges such as limited awareness and engagement remain barriers, pointing to the need for structured educational programs. Most students recognize that reducing food waste conserves resources and benefits the local environment, indicating a readiness to support a campus composting program. Furthermore, students and faculty were identified as critical players in driving these efforts, emphasizing a collective responsibility within the VIT community to make food recycling successful.

## RECOMMENDATIONS

1. **Increase Awareness Through Education and Events:** Regular workshops, campaigns, and interactive events focused on food sustainability should be conducted to boost awareness and involvement among students. Educational programs can emphasize the environmental and community benefits of food recycling.
2. **Implement a Campus-Wide Composting Program:** Given the strong support for composting, VIT could establish composting stations in cafeterias and dining halls. Compost generated could be used to improve green spaces on campus, further engaging the community in sustainability.
3. **Encourage Portion Control and Responsible Consumption:** Campaigns encouraging students to take only what they can finish would directly address food waste. Cafeterias might also offer the option of smaller portions to cater to individual needs and reduce leftovers.
4. **Develop Partnerships with Local Organizations:** Collaborating with local food banks or charitable organizations to donate surplus food could foster community engagement and benefit those in need.
5. **Student-Led Volunteer Programs:** Setting up volunteer programs for sorting and managing food waste could foster a sense of responsibility and involvement among students, promoting a hands-on approach to sustainability.

By implementing these recommendations, VIT can make significant strides toward a sustainable campus culture, reduce food waste, and serve as a model for environmentally conscious practices.

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## **ANNEXURE**

### **CONSOLIDATED QUESTIONNAIRE & RESPONSES**

**1. What is the primary purpose of food recycling?**

- 20 students chose B) To reduce food waste and repurpose waste materials
- 9 students chose A) To compost food into animal feed
- 10 students chose C) To avoid cooking more food
- 4 students chose D) To save money for food companies

**2. Which of these is a key benefit of food recycling on campus?**

- 24 students chose B) It reduces the environmental impact of food waste
- 7 students chose A) It saves students money directly
- 8 students chose C) It decreases the cafeteria's workload
- 4 students chose D) It reduces food variety on campus

**3. Which method is commonly used in food recycling for organic waste?**

- 27 students chose C) Composting
- 4 students chose A) Incineration
- 8 students chose B) Plastic repurposing
- 4 students chose D) None of the above

**4. Which of these strategies could best raise awareness about food recycling among VIT students?**

- 18 students chose A) Hosting campus events and workshops on food sustainability
- 6 students chose B) Increasing the price of cafeteria meals
- 12 students chose C) Limiting food options available in the cafeteria
- 7 students chose D) Reducing cafeteria hours

**5. What is a major challenge to implementing food recycling at VIT?**

- 18 students chose B) Limited awareness and engagement
- 9 students chose C) Lack of interest in environmental issues
- 11 students chose A) Insufficient food waste
- 5 students chose D) Excess food supply

**6. Which of these options would best support food recycling on campus?**

- 26 students chose B) Initiating a composting program on campus
- 6 students chose A) Using disposable cutlery and plates
- 7 students chose C) Providing unlimited food portions
- 4 students chose D) Increasing canteen hours

**7. How does food recycling directly benefit VIT's local environment?**

- 22 students chose C) By reducing the amount of waste sent to landfills
- 10 students chose A) By reducing pest issues
- 6 students chose B) By lowering air conditioning costs
- 5 students chose D) By encouraging more cafeterias

**8. Who plays the most crucial role in the success of food recycling initiatives on campus?**

- 16 students chose C) Students and faculty
- 11 students chose A) The campus cleaning staff
- 9 students chose B) Cafeteria management
- 7 students chose D) External food vendors

**9. How can students help to reduce food waste in the cafeteria?**

- 28 students chose B) By only taking portions they can finish
- 6 students chose C) By using disposable containers
- 6 students chose A) By purchasing more food to share



- 3 students chose D) By avoiding cafeteria meals

**10. What is the main environmental impact of food waste in landfills?**

- 19 students chose B) Production of greenhouse gases
- 9 students chose D) Increase in wildlife in urban areas
- 10 students chose C) Reduced soil nutrients
- 5 students chose A) Increased oxygen levels

**11. Which is a sustainable outcome of implementing a composting program at VIT?**

- 24 students chose B) Reduction in non-recyclable waste generation
- 8 students chose A) Increased revenue for the cafeteria
- 6 students chose D) Decrease in student meal options
- 5 students chose C) Need for more food vendors

**12. How does food recycling directly contribute to VIT's campus environment?**

- 21 students chose A) Improves green spaces through composting
- 8 students chose D) Reduces cafeteria workloads
- 8 students chose B) Lowers student cafeteria costs
- 6 students chose C) Enhances student academic performance

**13. Why is it important to raise awareness about food recycling at VIT?**

- 19 students chose B) To encourage responsible food consumption and waste management
- 7 students chose A) To make recycling mandatory for all students
- 10 students chose C) To increase food production on campus
- 7 students chose D) To reduce food portions in the cafeteria

**14. What type of waste is ideal for composting?**

- 27 students chose C) Vegetable scraps and fruit peels
- 5 students chose B) Plastic wrappers
- 5 students chose A) Meat and dairy products
- 6 students chose D) Metal cans

**15. In which area can food recycling practices be implemented on campus?**

- 23 students chose B) Cafeterias and dining halls
- 8 students chose D) Sports facilities
- 6 students chose C) Classrooms only
- 6 students chose A) Only in administrative offices

**16. How can VIT make food recycling more appealing to students?**

- 20 students chose B) By creating competitions around reducing food waste
- 9 students chose D) By restricting food choice options
- 8 students chose A) By charging fees for excess food waste
- 6 students chose C) By increasing food portion sizes

**17. Which of these products results directly from campus composting efforts?**

- 26 students chose A) Compost for gardening
- 8 students chose B) Processed foods for sale
- 5 students chose C) Packaged materials
- 4 students chose D) Recycled plastic items

**18. Which action best aligns with responsible disposal of uneaten food in a recycling program?**

- 26 students chose B) Separate it for composting or donation if possible
- 6 students chose A) Leave it for cafeteria staff to handle

- 6 students chose C) Discard it immediately without sorting
- 5 students chose D) Store it indefinitely

**19. What can be done with leftover food that is still safe to eat?**

- 23 students chose B) Distribute it to food banks or needy communities
- 8 students chose A) Throw it in the trash
- 7 students chose C) Mix it with non-recyclable waste
- 5 students chose D) Keep it for a week before disposal

**20. Which of the following campus initiatives would likely have the greatest impact on reducing food waste at VIT?**

- 21 students chose B) Launching a student awareness campaign on food recycling
- 9 students chose D) Raising food prices
- 7 students chose A) Installing more trash bins
- 6 students chose C) Decreasing the cafeteria's food options

**21. What resource savings are achieved through reducing campus food waste?**

- 22 students chose B) Conserving water and energy used in food production
- 7 students chose A) Reducing the need for packaging
- 9 students chose C) Lowering cafeteria energy costs
- 5 students chose D) Enabling more campus events

**22. What is an efficient way for students to participate in food recycling on campus?**

- 19 students chose A) By volunteering to sort and manage food waste
- 8 students chose B) By throwing away leftovers in regular trash
- 8 students chose D) By eating faster
- 8 students chose C) By avoiding the campus cafeteria

**23. Which of the following practices aligns with food recycling efforts on campus?**

- 22 students chose A) Using portion control to avoid excess food waste
- 7 students chose B) Consuming only packaged foods
- 8 students chose C) Using only disposable cutlery
- 6 students chose D) Avoiding all fresh food options

**24. What small personal action can students take to minimize food waste in everyday campus life?**

- 23 students chose B) Request smaller portions when dining
- 9 students chose C) Consume only packaged snacks
- 6 students chose D) Avoid all perishable foods
- 5 students chose A) Bring reusable containers for leftovers

**25. How can food recycling at VIT enhance community engagement?**

- 22 students chose A) By promoting collaboration among students, staff, and local organizations
- 7 students chose C) By minimizing interaction with external community members
- 8 students chose D) By focusing solely on waste management without community input
- 6 students chose B) By isolating recycling efforts to specific departments