

# Chapter 6

## From Plate to Planet: Sustainable Strategies for Food Waste Management in the Hospitality Industry

**Karan Berry**

 <https://orcid.org/0000-0002-8641-5228>

*Symbiosis International University (Deemed), India*

### **ABSTRACT**

*The global hospitality sector is responsible for approximately 23 million tons of food waste each year, necessitating immediate attention to tackle its repercussions. This chapter delves into various approaches that encompass the reduction, reuse, and recycling of food waste, underscoring the crucial role of a circular economy in promoting sustainability. Through the examination of recent research and case studies from prominent hospitality establishments, the analysis scrutinizes successful implementations of environmentally friendly practices. These practices include initiatives to reduce waste at its source, food donation programs, composting, and the utilization of anaerobic digestion technologies. It is essential to disseminate the advantages of mitigating food waste to practitioners in the hospitality sector for their company's short-term financial success and corporate image. Recommendations are outlined for policymakers, businesses, and consumers to initiate a cultural shift towards sustainable and responsible food consumption and waste management practices.*

### **1. INTRODUCTION**

The hospitality sector, encompassing a diverse range of industries such as hotels, catering services, and restaurants, plays a crucial role in the global economy. While its primary focus lies in delivering exceptional experiences to guests, it grapples with the significant environmental challenge of food wastage. The objective of this chapter is to conduct a comprehensive analysis of the intricate issue of food wastage in the hospitality sector, with a particular emphasis on effective and sustainable management techniques. While the management of food waste is widely acknowledged as essential by both authorities and academics, there remains a lack of research specifically focused on this issue within the hotel sector.

DOI: 10.4018/979-8-3693-2181-2.ch006

The industry comprises multiple sectors, including hotels, resorts, bed and breakfast establishments, campsites, restaurants, cruise lines, airlines, and event planning (Sara, 2021). It is a multifaceted industry that integrates travel, lodging, resorts, ships, and hotels, providing customers with various amenities like accommodation and food (Svitlana, 2021). The distinctive feature of the hospitality industry lies in the host-guest relationship, which prioritizes warm and welcoming treatment to ensure guests feel secure, valued, and at ease (Marc, 2020).

Food waste poses a significant predicament that has far-reaching implications for the environment, society, and economy. In recent times, the gravity of this issue has intensified. The hotel industry, by virtue of its inherent nature, contributes significantly to this problem as it generates a substantial amount of food waste. Moreover, hotels, restaurants, and other entities in the hospitality sector bear a social responsibility to effectively manage their food resources. By addressing the issue of food waste, the hospitality industry can play a pivotal role in fostering a more conscientious and sustainable future.

Food waste represents a global problem that demands immediate action due to its adverse impact on the environment, economy, and food security. To identify the most effective strategies for preventing food waste, this study examines the trends and factors contributing to food waste generation in the hotel and food service industries (Samsuddin et al., 2022). The findings of a research about Malaysia's hotel and food service sector by Effie et al. (2019) suggest that the problem's magnitude is far greater than previously acknowledged. In the selected case studies, approximately one-third of the food was wasted, with nearly half of that waste being avoidable. The largest portion of waste stemmed from food preparation, followed by leftovers from buffets and customer plate waste. The cost of food waste amounted to approximately 23% of the total expenditure on food purchases. Operational procedures and restaurant policies, along with social norms related to food consumption, were identified as contributing factors to food waste generation. Consequently, strategies to mitigate food waste should address both the social practices of customers in relation to food consumption and the operational and organizational structures of establishments in the food service and hospitality industries.

The occurrence of food waste transcends various stages of the supply chain and the consumption process, thereby rendering it a systemic predicament. Consequently, it becomes imperative to scrutinize the methodologies, techniques, and resources that can be employed to curtail the prevalence of food waste. Gaining insights into the widespread implementation of social marketing concepts offers valuable information pertaining to alternative strategies that can be utilized to encourage voluntary modifications in behavior (Kim et al., 2019).

A comprehensive review of the existing literature reveals a dearth of studies focusing on customers' food wastage behaviors, with the majority of research in the hospitality sector primarily centered on the role of management in reducing food waste (Sharma, 2020). Additionally, this chapter lays the groundwork for forthcoming empirical studies by emphasizing essential behavioral tools that foster a reduction in personal food wastage behaviors.

The management of food waste within the hospitality sector poses a complex predicament, with far-reaching consequences for the economy, environment, and society. Addressing this situation not only presents a business opportunity for the industry but also entails a moral obligation. This chapter delves into the causes, effects, and existing management techniques, while also exploring innovative and sustainable solutions, all with the aim of providing insightful analysis and recommendations for the hospitality industry. To enhance practicality, case studies will be incorporated to showcase real-world instances of successful food waste reduction strategies, thereby inspiring other businesses to follow.

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/from-plate-to-planet/341562](http://www.igi-global.com/chapter/from-plate-to-planet/341562)

## Related Content

---

### Risk Perception and Tourist Types: A Study Among International Tourists

Deepti Jogand Nandakumar Mekoth (2019). *International Journal of Tourism and Hospitality Management in the Digital Age* (pp. 22-43).

[www.irma-international.org/article/risk-perception-and-tourist-types/231523](http://www.irma-international.org/article/risk-perception-and-tourist-types/231523)

### Local Community Attitude and Support Towards Tourism Development at Saint Martin Island, Bangladesh: Local Community Attitude and Support

Md. Abdul Hai and Md. Badsha Alamgir (2020). *Destination Management and Marketing: Breakthroughs in Research and Practice* (pp. 976-987).

[www.irma-international.org/chapter/local-community-attitude-and-support-towards-tourism-development-at-saint-martin-island-bangladesh/251090](http://www.irma-international.org/chapter/local-community-attitude-and-support-towards-tourism-development-at-saint-martin-island-bangladesh/251090)

### Navigating the New Frontier: Remote Work and the Rise of the Digital Nomads

Roma Singhand Runumi Das (2025). *Transforming Remote Work and Tourism in the Digital Nomad Era* (pp. 1-28).

[www.irma-international.org/chapter/navigating-the-new-frontier/375346](http://www.irma-international.org/chapter/navigating-the-new-frontier/375346)

### Role of ICT And Tourism in Economic Growth of India

Surender Kumar, Karuna Chauhan and Abhay Kumar Srivastava (2017). *International Journal of Tourism and Hospitality Management in the Digital Age* (pp. 1-16).

[www.irma-international.org/article/role-of-ict-and-tourism-in-economic-growth-of-india/177119](http://www.irma-international.org/article/role-of-ict-and-tourism-in-economic-growth-of-india/177119)

### Recommendation System for Sightseeing Tours

Ricardo Claudino Valadas and Elizabeth Simão Carvalho (2020). *International Journal of Tourism and Hospitality Management in the Digital Age* (pp. 34-54).

[www.irma-international.org/article/recommendation-system-for-sightseeing-tours/259006](http://www.irma-international.org/article/recommendation-system-for-sightseeing-tours/259006)