

Title: Waste-to-Energy Integration Strategies in the Tourism Industry: Evidence of Bangladesh

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Abstract: The Bangladesh tourism industry faces a growing challenge in waste management, which poses a threat to environmental and public health. Despite economic growth, Bangladesh struggles with managing solid waste, with traditional landfilling polluting soil and water. Hospitality waste management is particularly challenging due to the unique types of waste generated by hotels, resorts, restaurants, and eco-lodges. This chapter examines waste-to-energy (WtE) integration in the country's hospitality sector using secondary research, academic journals, industry reports, and government publications. WtE technologies, such as anaerobic digestion, gasification, and incineration, can help reduce landfilling and provide renewable energy for hospitality facilities. The chapter explores the challenges of solid waste management in Bangladesh, focusing on organic waste, paper, plastics, and glass. It evaluates WtE technologies' potential for hospitality establishments, highlighting their significance in resolving waste management issues and ensuring sustainable tourism development.

Keywords: Waste-to-energy (WtE) Hospitality waste management Sustainable tourism Solid waste management Bangladesh tourism industry Anaerobic digestion

[DOI: 10.4018/979-8-3693-7605-8.ch003](https://doi.org/10.4018/979-8-3693-7605-8.ch003)

[https://www.igi-global.com/chapter/waste-to-energy-integration-strategies-in-the-tourism-industry/357586#:~:text=Waste%2D%20to%2D%20Energy%20\(WtE\)%20technologies%20significantly%20manage%20tourism,Abedin%20%26%20Karim%2C%202022\).](https://www.igi-global.com/chapter/waste-to-energy-integration-strategies-in-the-tourism-industry/357586#:~:text=Waste%2D%20to%2D%20Energy%20(WtE)%20technologies%20significantly%20manage%20tourism,Abedin%20%26%20Karim%2C%202022).)