

# [The sustainability in hospitality industry environmental sciences essay](https://assignbuster.com/the-sustainability-in-hospitality-industry-environmental-sciences-essay/)

HOTEL COLLEGEWilliam F. Harrah College of Hotel AdministrationHMD 376DSUSTAINABILITY IN HOSPITALITY INDUSTRY

## Individual Assignment – Strategies for Sustainable Management in the Hospitality/Tourism Industry

Document Title: How should hotels deal with solid waste?

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## Name:

Xin Renkai

## Contact:

+65 9270 8954

## Email:

xinr1b488@hotmail. com

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A. Prof Madeleine Cheah Hevera

## Executive Summary

In general, this paper aims to identify some of the strategies that hotels can adopt to cope with the problem of solid waste pollution. Solid waste refers to various varieties of old and used articles that we no longer need or have any usage of in the future which are discarded after use. Pollution is the introduction of harmful or poisonous contaminants into the natural environment. Therefore solid waste pollution is defined as the introduction of the items that we no longer need into the natural environment. One of the environmental impacts of waste is the generation of methane gas from decomposed rubbish that are buried in landfill sites. Incinerating waste can also cause problems as burning plastics will produce toxic substances. The hospitality industry constitutes one of the most energy and resource intensive branches of the tourism industry and the waste can be classified as biodegradable, non-biodegradable and biological. With an increase in average occupancy rate in hotels around the world, there is a need for hotels to reduce their impact on the environment as they count amongst the greatest polluters and resource consumers within the service industry. Some hotels have been stepping up their corporate social responsibility projects, such as recycling components of the mattress and donating partially-used soap to the Global Soap Project. However, more can be done in hotels; hotels can work towards reducing the waste generated, reusing an item to minimize disposal and recycling, but the most important component is to engage employees to be proactive and motivate them to achieve the best results.

## Table of Contents

## Introduction

Solid waste refers to various varieties of old and used articles which are discarded and thrown away after use. It is commonly known as trash, garbage, refuse or rubbish. Some of the items that we no longer need or have any usage of in the future fall into the category of solid waste and we tend to dispose them. Pollution is the introduction of harmful or poisonous contaminants into the natural environment. Therefore solid waste pollution is defined as the introduction of the items that we no longer need into the natural environment. Solid waste pollution with improper disposal methods can increase the risk of negative health effects in human and accelerate the destruction of the environment.

## Environmental impacts of waste

Landfill sites are sites for the disposal of waste materials by burial and it remains the most common method of organized waste disposal. Burying rubbish in landfill sites can be a dirty and wasteful business. Some of the waste takes a long time to decompose and during the process it may generate methane gas which is explosive and contributes to the greenhouse gases. The poor usually have to borne the many burdens associated with landfills, as they are more likely to live near these badly managed rubbish dumps. Furthermore, incinerating waste can also cause problems as plastics tend to produce toxic substances when they are being burnt. Gases from incineration may also cause air pollution and contribute to the acid rain. Not only that, sending the European consumers’ waste to China in container ships has made headline news in recent years and it received condemnation reaction from ecologists. (Sloan, Legrand and Chen) According to The Guardian, there was an article about China being the United Kingdom’s new rubbish dump. In the article, it stated that ‘ More than a third of the waste paper and plastic collected by British local authorities, supermarkets and businesses for recycling is being sent 8, 000 miles to China without any knowledge of the environmental or social costs – and to the complete surprise of most consumers. New government figures suggest that exports to China are running at 200, 000 tonnes of plastic rubbish and 500, 000 tonnes of paper and cardboard a year - a huge increase on just three years ago.’ (Vidal)

## Waste in the hospitality industry

The hospitality industry constitutes one of the most energy and resource intensive branches of the tourism industry. The top priority in the hospitality industry is to maintain high guest satisfaction without sacrificing comfort and service. Therefore, there is a great concern that any environmental improvements or conservation methods implemented will not negatively affect guest satisfaction. Furthermore, the modern guest wishes to feel that his or her actions are environmentally responsible. Waste in the hospitality industry can be classified into biodegradable waste and non-biodegradable waste. Biodegradable waste are waste which can be broken down easily, such as food waste, and non-biodegradable waste are waste which cannot be broken down, such as plastic, glass and metal. In addition, hotels also produce biological waste known as human waste. (Sloan, Legrand and Chen)

## Why should hotels become more sustainable?

Hotels, motels and all the various forms of accommodation comprise a large sector of the travel and tourism industry, and it has been shown that this various forms of accommodation have the highest negative influence on the environment. On average, a hotel guest generates approximately one kilogram of waste per night and about more than half of it is in paper, plastic and cardboard. (Sloan, Legrand and Chen) With the increase in average occupancy rate in hotels around the world, there is a need for hotels to reduce their impact on the environment. Any item thrown away, whether it is a used plastic bag or a packet of crackers past its expiry date, is a waste of resources and when it is not disposed of correctly, can lead to grave environmental consequences. Reducing waste means there will be less impact on the environment, less usage of resources and less consumption of energy and water, which will lead to cost saving. Therefore, this research paper aims to identify the issues faced by hotels regarding solid waste management, how some hotels are coping with the problems and lastly some recommendations that hotels can practice to curb the issue of solid waste management.

## Supporting Data and Information

## Mattress waste in the hospitality industry

Mattresses are hard to get rid of especially once they have reached the end of their usefulness. Despite growing trends towards sustainability in the hospitality industry, there are evidences to show that cheap and environmentally unfriendly mattresses with short life-spans still continue to be a popular choice among hotels. These cheaper mattresses are not only impractical and wasteful; they also represent poor value for money. It was mentioned by Jessica Alexander of The Sleep Council that what hotel guests seem to want most of all from their hotel stay is to have a good night’s sleep and a decent bed is key. (Chik)

## Factors that determine the useful life of a hotel mattress

Durability and hygiene are the two key factors that determine the useful life of a hotel mattress. The durability of a mattress is dependable on how well it is made and what it is made from. Hygiene is the most important concern for hotels and their guests. It is recommended that a hotel should replace its’ mattresses every six to eight years. (Coffey)

## Environmental impact

With over 700, 000 rooms in the United Kingdom serviced accommodation sector replacing mattresses every two to seven years, the environmental impact is that many millions of tons of carbon emissions and waste are generated. According to the Furniture Industry Research Association, a double mattress on average has a carbon footprint of seventy-nine kilograms of carbon dioxide and typically it requires over twenty cubic feet of landfill space and will take over ten years to decompose. Furthermore, discarded mattresses can quickly become an environment popular with bed-bugs and other parasites, which makes donating them a non-viable option. (Chik)

## Positive steps that hotels can practice

As mattresses wear out and coupled with hygienic issues, it is neither advisable to donate used mattresses nor feasible to dispose these mattresses in a landfill. Therefore, hotels should work together with local mattress recycling companies to recycle the components in the mattresses. If a mattress is to broken down into its individual components, over 95% of the recyclable materials are recoverable. Some of the recovered materials, such as quilting, foam, wood, plastic, steel, cotton and felt can be used to generate revenue. Quilting and foam can be turned into carpet underlay whereas wood can be recycled into biofuel or into a variety of pressed wood products. Plastic can be recycled by plastic recyclers and the steel from the box-springs can be recycled into new metal products. (LeBlanc)

## Soap wastages in the hospitality industry

## Facts about soap

Soap is the first line of defence against germs and diseases. By washing hands with soap, it can help to prevent diarrheal diseases and it is among the most effective and inexpensive options. With over 4. 6 million hotel or motel rooms in the United States, it is estimated that about 2. 6 million soap bars are discarded in landfills every day. In contrast, an estimated 2. 4 million children die each year from sanitation and hygiene related illnesses. (Our Work)

## About the Global Soap Project

The Global Soap Project was founded in 2009 and it is headquartered in Atlanta, Georgia. It is a non-profit group that recover discarded soap from hotels using a process in which the soap is sanitized, melted, and remoulded into new bars of soap, and then given to people in developing countries. The goal of the Global Soap Project is to prevent deaths from occurring and improve the health of others by recycling used hotel soap and distributing them in countries where there is a major risk of sanitation and hygiene-related diseases. (About)

## Conclusion of the Global Soap Project

Since its founding in 2009, the Global Soap Project has distributed more than 300 tons of soap to vulnerable communities in twenty-three countries on four continents. By using each organization’s strengths and focusing on creating value for the hotel, the environment and communities, the Global Soap Project expect to improve the lives of thousands of people in need and not letting the partially-used soap go to waste. Therefore, hotels should play a part by educating the housekeeping staff that instead of throwing away partially-used soap, it should donate the soap to the Global Soap Project who will in turn redistribute the soap to those in need. (Hilton Worldwide)

## Turning Toilet Waste into Power

Hotels generate biological waste, also known as human waste, through the by-products of digestion. Scientists from Nanyang Technological University (NTU) have developed a new toilet system called No-Mix Vacuum Toilet, which can turn human waste into electricity and fertilizers while reducing the amount of water need for flushing at the same time. Using the vacuum suction technology used in aircraft bathrooms, flushing liquids would require only 0. 2 litres of water while flushing solids would require just one litre as compared to the existing conventional water closet that uses about four to six litres of water per flush. (New Toilet Turns Human Waste Into Electricity and Fertilizer)

## How it works

The toilet has two chambers that separate liquid and solid waste. The solid waste can be recovered and sent to a bioreactor where it will be digested to release bio-gas which contains methane. Methane can be used to replace natural gas used in stoves for cooking or be converted to fuel power plants to generate electricity. The ultimate aim for the new toilet system is not only to save water but also to have a complete recovery of resources in resource-scarce Singapore. The No-Mix Vacuum Toilet will also be useful for hotels or resorts in remote areas which are not linked to the main sewage system. (New Toilet Turns Human Waste Into Electricity and Fertilizer)

## Recommendations

## Waste reduction tactics in hospitality operations

Some of the waste reductions tactics hotels can adopt include purchasing items in bulk, outsourcing and avoiding bottled water. By purchasing items in bulk, it can create less waste or eliminate waste before it is created. Thus it will lead to less creation of pollution and saving of natural resources. This can be done by working together with suppliers and encouraging suppliers to reduce the packaging or change to reusable packaging whenever possible. An example of purchasing items in bulk would be to purchase cleaning materials in concentrated form and mixing it in the hotel. And for toiletries, hotels can supply guests with liquid soaps and shampoos in refillable ceramic containers instead of offering individual toiletries. Outsourcing can be an alternative for hotels to reduce waste and cut costs. Services such as laundry that require an important capital expenditure can be outsourced, especially in small hotels where resources are limited. Bottled water can also be avoided in hotels as it is expensive, wasteful and has many environmental impacts. Bottled water produces up to 1. 5 million tons of plastic waste per year, requiring up to 180 million litres of oil per year to produce. Plastic waste represents a great risk to marine life as birds and fishes mistake garbage for food. Moreover, plastic waste will be around for a long time due to its slow decay rate. (Sloan, Legrand and Chen)

## A strategic approach: Reduce

Hotels can reduce its waste generated by reducing laundry, newspaper distribution or paper usage. By reducing laundry, not only do hotels save water and energy, but there is also a reduction in the usage of detergent and bleach. According to the US National Association of Institutional Linen Management, hotel laundry costs range from $3 to $4 per day per room. It is also estimated that hotels can save up to $1. 50 per day per room by requesting guests to not get freshly laundered sheets and towels during each day of their stay. (Sloan, Legrand and Chen) Reduction of newspaper distribution can be done by only providing newspapers in central areas, such as the lobby. If guests want it delivered to their room, they can request for it during the check-in process. It was estimated that Marriott International saved 8 million newspapers annually when they stopped delivering newspapers to every guest room. (Waste Management)Reducing paper usage can be done by replacing toilet rolls only when the dispensers are almost empty. If the hotel’s policy is to replace half-used toilet rolls, these toilet rolls can be used in employee restrooms or donated to shelters. By installing hand dryers in public areas instead of placing paper towels in toilets can also help to reduce the usage of paper.

## A strategic approach: Reuse

Reusing an item keeps the material in its original form and uses the item over and over again for the same or different purposes, thus it is able to reduce the solid waste produced. Some of the methods hotels can practice are to reuse textiles, containers or bottles and glasses. Damaged textiles, such as uniforms, linens or torn bed sheets, can be converted into useful items such as cleaning rags. Also, hotel and restaurant operators can choose from a wide range of options when they purchase and dispense beverages. Instead of disposing the bottled beer after use, the bottles can be reused again thus reducing their solid waste contribution.

## A strategic approach: Recycle

Recycling is a process of breaking down an item into its basic parts and making a new product out of it. Hotels should implement recycling programs for their guests and employees so that everyone in the property can play a part to recycle. This can be done by placing recycling bins in the hotel lobby to encourage guests to recycle. Recycling can also help to conserve natural resources, saves energy and reduce greenhouse gases and pollution that result when scrap materials are substituted for primary raw materials.

## Employee engagement

One of the key components of a successful recycling campaign when it comes to hospitality industry is the engagement of employees. Even the best environmental policy does not help much if employees do not understand the meaning and goals behind it and do not help to attain the goals. Employees need to have the proper skills, knowledge, motivation and awareness if they are expected to achieve and implement certain initiatives, the need to have proper skills, knowledge, motivation and awareness. Therefore, environmental training should be conducted regularly and made enjoyable so as to involve and motivate staff to achieve the best results. Environmental training could include topics such as waste management, introducing the importance of reducing, reusing and recycling to staff and motivating them to give good suggestions. (Sloan, Legrand and Chen)An illustration created by Greenstar, one of the United States of America’s largest recycling companies, provides the ‘ Top 10 ways to increase employee engagement in recycling’. The top ten ways are: communicate clear objectives, educate employees, find a champion, set goals, monitor progress, make it convenient, incentivize, take the extra step, purchase recycled, and maximize your program. (Infographic: Top 10 Ways to Increase Employee Engagement in Recycling)

## Conclusion

In conclusion, with improper disposal methods, solid waste pollution can increase the risk of health effects in human and accelerate the destruction of the environment. Some of the environmental impacts of waste discussed including burying of rubbish in landfill and sending the waste to developing countries like China. Being one of the most energy and resource exhaustive industries, there ought to be a greater emphasis on hotels to reduce their impact on the environment. Some of the measures hotels can adopt include recycling their mattresses, donating discarded soap and installing no-mix vacuum toilet. As mentioned, over 95% of the recyclable materials in a mattress are recoverable. In addition, the Global Soap Project has distributed more than 300 tons of soap to vulnerable communities in twenty-three countries on four continents. Waste reduction tactics that can be adopted in the hospitality operations include purchasing items in bulk and outsourcing. These tactics help reduce the amount of waste produced or eliminate them before they are created, and contribute to cost saving. Reusing items and implementing recycling programs are more options for hotels to prevent solid waste pollution. Most important of all, employee engagement is also a key factor behind the environmental policies that the hotel has in order to further attain the hotel’s goals.