



EARTHCHECK

REDUCING WASTE TO LANDFILL

Tourism operators generate a range of different wastes. The size and type of operation will influence how much waste is produced. The location of the tourism operation will also affect the impact this waste has on the surrounding community and environment as well as the availability of possible reuse and recycling options.

Typical wastes generated from tourism businesses include:

- **Organic wastes (in particular food and garden waste):** Food waste including cooking oils are typically generated in kitchens, guest rooms and communal areas. Garden wastes include grass clippings, leaves and branches
- **Construction and renovation waste (wood, concrete, metal, plastic, fabric):** This is generally only generated during construction and renovation activities. Wastes can also include furniture and fixtures being replaced or upgraded
- **Office wastes (paper, ink cartridges, computers):** Generally restricted to office areas and reception, with some paper waste which may also be found in guest rooms and communal areas
- **Packaging waste (plastic, wood, metal, cardboard):** Typically from guest rooms, kitchens and goods receiving and storage areas

What are the costs of not reducing waste?

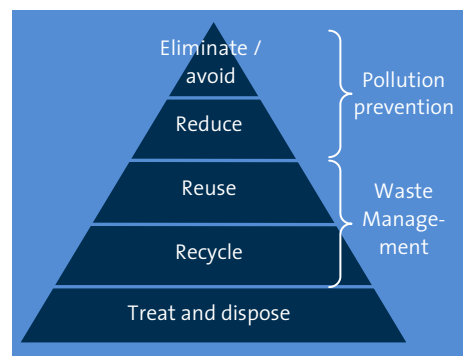
Waste is not just about disposal costs. Waste itself represents a loss of valuable resources that cost your operation money. There are also many other hidden costs such as lost revenue from not recycling, a loss of floor space, valuable staff time spent on unproductive waste storage and management, degraded guest amenity and a poor public image. There are also costs to the environment and community including:

- Greater landfill requirements
- Greater resource consumption
- More energy consumption
- More greenhouse gas emissions

Preventing waste from being generated in the first place will eliminate these costs. Alternatively, by reusing or recycling waste, there is the potential to reduce disposal costs and possibly even generate some revenue or contribute to charitable causes.

What can I do?

There are many options available to reduce waste. First, it is necessary to undertake a waste audit to understand the typical types and quantities of wastes being generated. The waste minimisation hierarchy below can then be used to help prioritise waste efficiency opportunities.



EXAMPLE: OFFICE PAPER

Start with an assessment of the quantity and type of paper currently in use. Investigate how paper is utilised in the office and why it ends up as waste. For example, excessive single sized printing or the filing of documents that could be stored electronically.

Eliminate

Can we eliminate the need for paper in some circumstances e.g. electronic receipts or using a whiteboard to put up notices to staff?

Reduce

- Are there mistakes being made that are avoidable?
 - Are there print outs that are unnecessary e.g. extra copies?
- Can the default printer setting be fixed to print double sided?

Reuse

- Can we reuse waste paper as note pads?
- Can somebody else reuse our waste paper?

Recycle

- Are we purchasing paper that can be recycled?
 - Are we recycling our waste paper?
 - Are we buying paper made with recycled content?



CASE STUDY: The Alto Hotel, Melbourne Australia

The Alto Hotel on Bourke in Melbourne, Australia follows the principals of the waste minimisation hierarchy looking first at opportunities to eliminate and reduce its volume of waste before exploring reuse and recycling options. By successfully implementing a number of initiatives the hotel has been able to reduce the amount of waste being sent to landfill to only 3.9 litres per guest night. Initiatives implemented by the hotel include:

- Eliminating all plastic bottles for toiletries by installing refillable, pump-action dispensers in guest rooms
- Offering a book exchange at the hotel's library to reduce paper waste
- Returning bulk containers to suppliers for reuse
- Onsite composting of all green waste from the central kitchen in an 'aerobin' for use on staff's personal gardens
- Recycling all deep-frying oils from the central kitchen into bio-fuel
- Reusing all cardboard boxes by the local post-office
- Giving preference to suppliers with products made from recycled content. For example, all the hotel's office paper, toilet tissues and paper towels are made from recycled paper
- Giving preference to suppliers with products that are recyclable. For example, the site recycles 90% of its waste through specialist companies (paper waste, glass, plastics and fluorescent globes)
- Giving preference to biodegradable products such as bio-degradable bin-liners and key cards made from corn starch

Things to consider at each stage:

When reviewing waste management procedures and identifying waste reduction opportunities, the following should be considered across all areas and at each stage of the waste management hierarchy:

- **Supply chain management:** How can we work with both suppliers and waste contractors to minimise waste quantities received and maximise waste reuse and recycling opportunities?
- **Standard operating procedures:** Do we have clear standard operating procedures which address waste issues and specify appropriate procedures for waste management?
- **Training and education:** Do we train and educate staff and guests on standard operating and waste management practices?
- **Monitoring and review:** Do we continually monitor and review procedures to ensure waste management processes are being followed and are working properly?

Eliminate/Avoid

The best way to reduce waste to landfill is to try and eliminate as much waste as possible. Ways to eliminate or avoid waste require innovative thinking about the business procedures and product purchasing. Be critical when assessing whether products and procedures add value or are superfluous to the business operations. Investigate the following opportunities to eliminate or avoid waste:



- **Substituting one product for another:** If there is a waste of a particular concern (such as hazardous or non-recyclable waste) are there products which could be substituted to eliminate this waste altogether? Could a new piece of equipment help to eliminate this waste? For example, eliminating styrofoam boxes by using reusable containers or providing refillable dispensers in guest rooms to eliminate the need for individually wrapped toiletries
- **Reviewing standard operating procedures** to ensure waste reduction issues are included. For example, food handling procedures to include guidance on the correct storage to eliminate wastage from spoilage or damage

DEVELOPING STANDARD PROCEDURES

Developing standard procedures can help to eliminate and reduce waste. A number of useful housekeeping strategies are available to assist businesses identify and minimise unplanned wastes. Some key strategies derived from the "5S" systematic framework for good housekeeping practices include:

- **Sorting:** removing all items not needed
- **Setting in order:** placing items for easy access and return
- **Shining:** cleaning and inspection to keep items in good condition
- **Standardising:** standards and rules that are easily recognised (visual management)
- **Sustaining:** continuous improvement

Reduce

Some waste may be unavoidable. If waste appears unavoidable and there is no feasible way to substitute, avoid or eliminate the production of this waste, reducing the quantity of waste is the next preferred step in the waste management hierarchy. Some opportunities to reduce waste include:

- Implementing an inventory management system to monitor product purchasing, storage and waste. For example, excessive food waste can result from over purchasing and poor menu planning
- Discussing opportunities to reduce packaging with suppliers. These might include returnable containers, bulk purchasing, reducing the amount of packaging or increasing its recycled content or recyclability
- Maximising visibility, reducing clutter and shortening the distance products



CASE STUDY:

El Gouna Movenpick,
El Gouna, Egypt

El Gouna Movenpick in El Gouna, Egypt has reduced the volume of waste it sends to landfill by 95% over the four years it has been benchmarking solid waste.

The site's remarkably low waste volumes (0.1 litre of waste sent to landfill per guest night) can be attributed to a range of waste reduction and recycling initiatives including its most successful initiative that involves segregating waste into colour coded garbage bags and containers. This occurs initially in-house followed by further segregation at the El Gouna 'Green Area' resulting in a very successful 93% recycling rate.

The success of this initiative has relied on staff following appropriate waste management practices. Department trainers monitor and update staff on waste management practices on a weekly basis whilst regular reviews are carried out by heads of department and the training manager.

travel to decrease the likelihood of product damage and accidents such as spills

- Use visual reminders such as signs and colour coding to help with waste reduction, reuse and recycling initiatives
- Keeping equipment well maintained and operating efficiently. For example, test and recalibrate oven and refrigerator thermostats to prevent food being spoilt
- Design areas to reduce waste. For example, could kitchen surfaces be redesigned to reduce cleaning requirements?

TIP: Incorporate waste discussions into regular meetings. Inform staff about how much waste is being generated in specific areas and the success of initiatives to reduce or recycle waste. Ensure open communication channels exist between different departments so they are able to communicate about waste issues and collaborate on possible solutions.

MANAGING THE RECEIPT OF GOODS

Ensure products are delivered on time and are of the correct quantity and quality to ensure you are not purchasing products that are likely to become waste.

Provide a dedicated, restricted and climate controlled storage area and implement an inventory management system to track product stocks to help reduce spoilage and over purchase. These systems also provide valuable information to feed into product purchasing reviews.

Reuse

If a waste cannot be eliminated and all efforts have been made to reduce the quantity of waste generated, there may be opportunities for its reuse either onsite or by external businesses, customers or community groups. Reuse is not just about reusing packaging but also includes purchasing items that can be reused such as crockery and utensils or equipment that can be easily upgraded and repaired. Reuse is different from recycling in that it involves reusing waste without first significantly altering its physical form. This can be achieved through:

- Onsite reuse where products or packaging are reused for the same procedure or utilised in a different procedure or department
- Offsite reuse through sale of old equipment or donations to staff, other businesses and community groups

Recycle

Recycling incorporates the reuse of product materials in different forms or within new products. Recycling can be conducted onsite (such as organic waste composting) or offsite using waste service providers.

Key issues that need to be considered when determining the potential for recycling wastes include:

- Quantity, quality and cost of waste recycling
- Availability of service providers and processes to accept waste for recycling

The keys to successful recycling: Source separation, standard procedures, monitoring and education

Successful recycling relies on the careful segregation and sorting of different waste. Depending on the requirements of your waste service provider, general waste will

need to be separated into material categories such as food and organics, paper and cardboard, plastics, glass, metal, e-waste and waste to landfill. Issues can arise between tourism operators and waste service providers when poor waste separation procedures lead to cross contamination of recyclable wastes. Establishing standard procedures for waste separation and recycling and regularly monitoring the implementation of these procedures can help to reduce contamination issues. The following provide some additional suggestions for implementing successful recycling initiatives:

- Provide clear and visual signs and labels for different waste bins (i.e. general, glass, paper, etc.). This might include pictures or colour coding to help distinguish waste types
- Locate recycling bins near to where waste is generated and where possible also provide a general waste bin to reduce the chance of recycling being contaminated with non-recyclable wastes
- Provide training to staff and education materials to guests on what and how to recycle
- Contract a licensed waste service provider and ensure downstream waste recycling facilities are appropriately dealing with recyclable waste. Confirm capacity and technical capabilities are appropriate for the waste types and volumes produced by your operation
- Regularly consult with your waste service provider to identify irregularities such as cross contamination and review recycling procedures accordingly. Always be looking for new opportunities to divert waste from landfill
- Specify recyclable products and packaging in procurement guidelines and work with both suppliers and waste service providers to identify opportunities

TIP: Where possible, set up a waste sorting and segregation area and appoint a staff member responsible for maintaining recycling procedures. If space is limited discuss alternative recycling opportunities with your waste service provider.

Treat & dispose

The treatment and disposal of waste should be adopted as a last resort. Treatment and disposal should be carried out through a licensed waste service provider in line with local laws and regulations and in a way that causes the least harm to the environment.



CASE STUDY:

Sandals Regency La Toc Golf Resort and Spa, St Lucia, West Indies

The Sandals Regency is located on an island and is therefore particularly conscious of the volume of waste it generates. Where possible the Resort attempts to reduce its generation of waste by reducing or reusing its packaging.

The Resort has partnered with the Windward and Leeward Brewery in its canister refill program. The resort returns around 175, empty 9 litre beer canisters to the beer supplier each week, where they are washed and reused. This program has **reduced the total amount of waste going to landfill by around 82m³ as well as saving valuable raw materials, energy and water** that would have been required to manufacture new canisters.

OTHER ACTIONS INCLUDE:

As the island does not currently have any recycling services the Resort ships its glass, plastics and cardboard to recycling plants off the island. In some cases the crushed glass is used in construction by local contractors. All food waste is donated to pig farmers in a nearby community.

Purchasing in bulk and working with the two other Sandals Resorts on the island to reduce packaging.

Training staff to segregate waste and the hotel has systems in place to closely monitor their efforts.

The resort's 210 acres generate considerable amounts of green waste which is composted on-site and used for mulching.

Old furniture and used linen are donated to the community or to near-by medical facilities.

The Resort is undertaking trials to see if they can recycle their waste kitchen oil to create a bio-diesel for the resort's motorised boats.