



Material Waste Management





Learning Outcomes

- To think critically about what we “throw away”
- Consider where material waste goes when we throw it away
- Examine the environmental cost of throwing things away





Agenda

1. Examine how much stuff we throw away as a society and as individuals
2. Learn about what happens to our waste once it's disposed of
3. Write a story of a plastic bottle





How much stuff do we throw away?

Discussion questions:

- **What do we mean when we say “throw away” or “dispose of”?**
- What does it look like to throw something away? What are you throwing away, and how and where are you throwing it away?
- What do we mean when we say we are recycling something?
- What does composting mean? How is it different from throwing something in the trash?
- Can you think of other methods of “throwing something away” or “disposing of something”?

Everything we “throw away” is material waste!





How much stuff do we throw away?

Looking at fashion as an example:

- Americans buy an average of 68 clothing items every year.
- 10% of the clothes produced get thrown away without a single use!
- People in the US throw away 81.5 pounds of clothing per person per year on average.
- The average garment in the US is worn just 7 times before it's thrown away.
- 90% of donated clothes get rejected and sent to a landfill or textile waste mill.

All of this leads to an estimated 11.3 million tons of textile waste ending up in landfills on an annual basis.



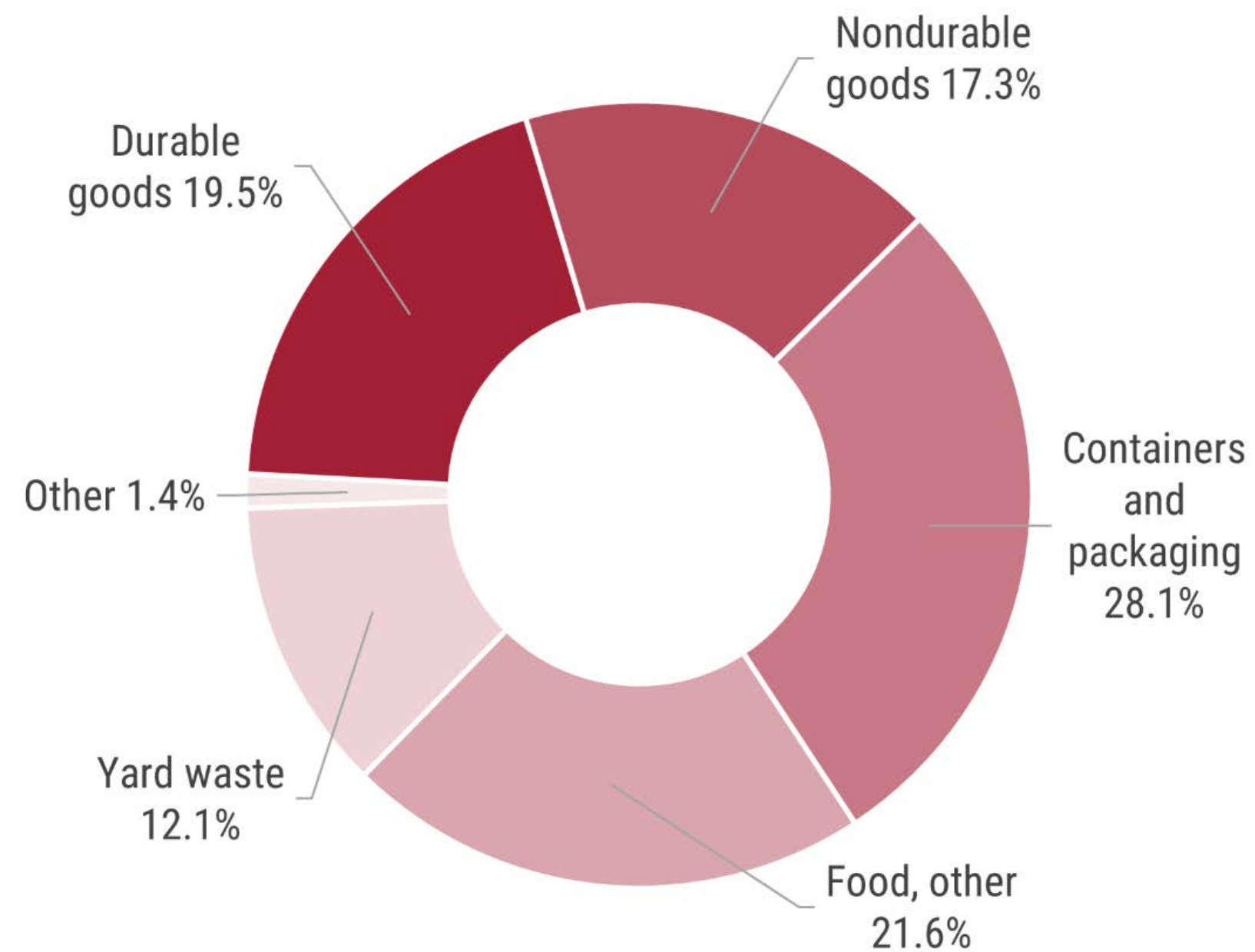


How much stuff do we throw away?

Discussion questions:

- What is a piece of clothing you recently bought?
- Is that piece of clothing something you'll wear many times?
- How long do you think you'll own this?
- **What piece of clothing have you had the longest?**





How much stuff do we throw away?

The big picture in the US:

- The average American throws away 4.9 lbs daily - almost 1800 lbs per person yearly!
- 28% of what Americans throw away is packaging, typically thrown out immediately after the product has been purchased or used.
- Almost 20% of what we throw away are “durable goods.”

Source: <https://environmentamerica.org/center/resources/trash-in-america-2/>





How much stuff do we throw away?

How does this relate to climate change?

About 42% of all U.S. greenhouse gas emissions are created in the process of extracting resources, producing goods, transporting materials, and disposing of waste.

- Fossil fuels are burned to power factories that produce goods.
- Forests get cut down to make wood and paper products.
- Large quantities of water required to produce cotton to make clothes.
 - It takes 2,700 liters of water to produce one T-shirt—that's enough for one person to drink for 900 days!



What did you throw away today?

- **What have I thrown away today? Was I aware of what I discarded?**
 - Did I throw it away in a trash can that mixed all waste materials or in a bin that segregated waste based on the type of material?
- **Did I have any other options other than throwing it away? Could it have been reused again for its original purposes, or could it have been reused for a different purpose?**
 - Was it designed to be reused? If not, could it have been designed to be reused?
- **Where did it go once I threw it away?**

Turn to a partner and share



What happens to our waste?



Where Does Your Trash End Up? (4 mins)

<https://www.youtube.com/watch?v=ThpxqEvoVzg>





What happens to our waste?

- Landfill or incinerator: 62%, including lots of plastic
- The ocean: an estimated 16.5 million tons of plastic washes into the world's oceans every year
- Other countries: waste often gets exported to other countries





What happens to our waste?

What about recycling?

[Is Your Plastic Actually Being Recycled? | NYT Opinion](#) (5 mins)

Reflections:

- What are your thoughts about this video? What did you learn? Did anything surprise you?
- What plastics (by number) are recyclable in our community?



The Story of a Plastic Bottle

Make up a story about the life of a plastic bottle. This activity is meant to be creative! There are no right or wrong answers, but here are some questions to get you thinking about your story.

- How was the plastic bottle initially created?
- Where was it initially created?
- Where did it go after it was created?
- What did it do, or what was its purpose?
- How many times did it get used?
- How was it thrown away (i.e., garbage, recycling, littered)? If recycled, was it easy to get it recycled? What difficulties existed in getting it recycled?
- Where did it go after being disposed of?
- What happened once it got to its destination after getting thrown away?
- What does the future hold for this plastic bottle?
- What is a more sustainable life cycle for a plastic bottle?



Additional Resources

- **Wasted: 50 million tonnes of e-waste every year**: UN Environment Programme - Many countries are challenged by the considerable environmental and human health risks of inadequately managed Waste Electrical and Electronic Equipment (WEEE), widely known as e-waste.
- **The lies that sell fast fashion**: Vox - E-commerce has completely warped our view of what items should cost and how long they should last as we move through trends at an unprecedented pace, and it's doomed to get worse if we don't adjust our buying habits and learn to slow down.
- **War on Waste - Waste Audit**: The Bundaberg Region audited three household bins and found that nearly three-quarters of the contents could have gone elsewhere.
- **What Happens To NYC's 3.2 Million Tons Of Trash | Big Business | Business Insider**: Business Insider - New York City is one of the most wasteful cities in the world, but none of its trash is processed in NYC; it's sent to waste-to-energy facilities and landfills as far away as Ohio and South Carolina.
- **The Story of Plastic (Animated Short)**: The Story of Stuff Project - This animated short pulls back the curtain on the plastic pollution headlines, revealing the true causes and consequences of the global plastics crisis.





Contributors

Walking Softer would like to thank CJ O'Brien of the Surfrider Foundation, and Harshitha Venati for contributing to the material waste management learning materials.

