

5. Wasting Away

TRANSITION



STREETS



Do you know where YOUR garbage goes when you throw something “away?” Where is the landfill where it’s dumped and buried? Or is it incinerated?

Every year homes, schools, businesses, schools and hospitals in the U.S. produce about 250 million tons of municipal solid waste (MSW), also known as “garbage.” Individually, each of us produces an average of 4.5 lbs. of waste per day, of which 34.5 % is recycled nationwide, not including backyard composting.^[1] Some cities, such as San Francisco, boast an average recycling/composting rate of 80% (with a goal of zero waste to landfill by the year 2020),^[2] while some municipalities across the U.S. have little (to no) local infrastructure for curbside collection of recyclable materials.

Although MSW does not include industrial waste, which comprises the vast majority of our nation’s waste, we need to remember that we all contribute to this directly by our consumption of manufactured goods— i.e. all the stuff we buy.

But even if we had infinite landfill space and incineration did not pollute the air, why else would we want to take steps to reduce the amount of waste we produce?

- **Save resources**—Many discarded products contain resources that are running out. Using them longer saves digging up even more.
- **Save energy**—Making new goods takes energy; better to keep the old ones in use as long as possible.
- **Reduce climate change**—Rotting buried garbage produces methane, a greenhouse gas 21 times more potent than carbon dioxide.

Recycling is important, but it is even more important that we try to use less stuff in the first place. The options for dealing with waste, in order of preference, are:

1. **Avoid**—Do you really need it?
2. **Reduce**—Do you need as much of it?
3. **Reuse**—Can it be fixed, used by others?
4. **Recycle**—Can it be broken down and used again?
5. **Landfill and incineration**—The last resort.

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5.2 WASTING AWAY

So what can you do about it?

Each of these actions will help you reduce the amount of waste that you produce. In your group, have a brief chat about each item and then decide which ones you want to tackle and when. Record your own action plan on the page at the end of this section.

- **The Story of Stuff**—learn more about the impacts of our excessive consumption and see if this affects your buying decisions. (5.3)
- **Reduce & reuse**—ideas for making things go further. (5.4)
- **Recycling**—your definitive guide to what we can recycle, when, where and how in your town. Some towns even collect compostable materials separately. (5.5)
- **Make your own compost**—for anyone who loves to grow things and is ready to take care of their own compostable waste. (5.9)

Notes:



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5.3 THE STORY OF STUFF

The Practical
Action Plan

Watch “The Story of Stuff” video on DVD or online at
http://bit.ly/story_of_stuff

At the heart of our country’s waste problem is an obsession with “stuff.”

“We are using and throwing away too much stuff, more than our share... The U.S. has 5% of the world’s population but consumes 30% of the world’s resources and creates 30% of the world’s waste.” -The Story of Stuff



What's this about?

Learn the history and real impact of consumption in the U.S. by watching “The Story of Stuff,” a 20-minute, fast-paced, fact-filled look at the underside of our production and consumption patterns (available online at http://bit.ly/story_of_stuff).

After watching “The Story of Stuff” video, discuss the following questions in your group (spend no more than 15 minutes on your discussion):

1. People in the US have less leisure time now than any point since feudal times. Why is this the case? What are some ways that we could change our economy to work less and live more? How can we hasten those changes?
2. “The American economy’s ultimate purpose is to create more consumer goods.” Can we/Should we each contribute to turning this around by changing our buying patterns? How can we get our government to focus on things more valuable than consumer goods, be they sustainability, justice, or healthcare?

Notes:

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5.4 REDUCE & REUSE

The Practical
Action Plan

Cost: none

\$ Savings: low-
med

Effort: low

CO2 saved: low-
med

Solutions

- Take reusable shopping bags wherever you go.
- Get off the junk mail list. Register at <http://www.dmachoice.org>
- If something is broken, repair it (yourself, with a friend, or at a repair shop) instead of throwing it away and buying a new product.
- Buy things gently used from consignment shops or thrift stores—toys, books, clothes, even furniture. You are supporting good causes and saving money. Donate stuff too, rather than disposing.
- For items that are not used often (i.e. certain tools or equipment), see if you can rent or borrow, rather than buy, them.
- Get rid of stuff online—someone will want it! Try www.freecycle.org.
- Buy or get second-hand stuff online: freecycle, craigslist, Ebay, etc.
- Give old magazines and comics to your neighbor, doctor's office or school.
- Use durable cups, napkins, plates and cutlery, not disposables.
- Use reusable bottles and jars instead of disposable drink cartons.
- Take empty jars, reusable containers and bags to fill at bulk bins; buy products with little or no packaging.
- Buy things that are made from recycled materials and are recyclable.
- Avoid buying plastic whenever possible.
- Use rechargeable batteries instead of disposable ones—they pay for themselves quite quickly.



Yes, but ... if Target is selling toasters for less than \$20, it might cost more than that to get it fixed – plus all the hassle of finding someone to do it, taking it there, and picking it up. As we saw in The Story of Stuff, can \$20 really reflect the true cost of this appliance? And if you're not paying the true cost, who is?



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5.5 RECYCLING

The Practical Action Plan

Cost: none

\$ Savings: none-low

Effort: low

CO2 saved: low-med

Waste Challenge

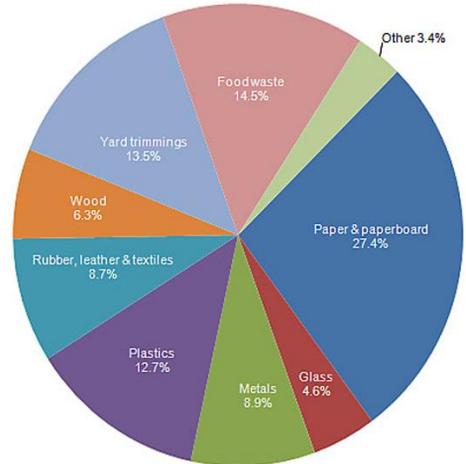
A large percentage of U.S. households that have recycling available to them don't recycle enough or at all, tossing everything they're done with into their garbage can.

Much of this waste can be a valuable resource. If it can be recycled or composted, it doesn't belong in the regular garbage headed to landfill or incineration.

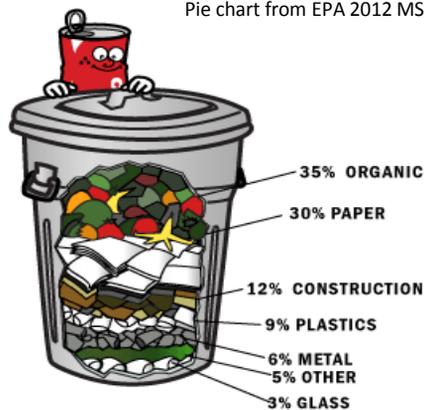
Look inside this typical trash can to see the average breakdown of materials in the trash and how much of the contents could have been recycled.

What does the current content of your garbage can look like?

Figure 5. Total MSW Generation (by material), 2012
251 Million Tons (before recycling)



Pie chart from EPA 2012 MSW Report^[3]



Hazardous Waste

In some states things like batteries, paints, motor oil, electronics and other toxic wastes are banned from the landfill and storm drains. These materials can be taken to special collection sites.

Chemicals in disposed hazardous waste can be released into the environment and contaminate our air, water, and possibly the food we eat. And by throwing hazardous waste in the garbage, you can cause additional hazards to your garbage handlers.



Cost: none

\$ Savings:
none-low

Effort: low

CO2 saved: low-
med

Why recycle?

Recycling helps conserve important raw materials, energy, and natural habitats for future use, and reduces greenhouse gas emissions.

The precise benefits of recycling depend on the material you're recycling. For example, recycling aluminium saves 95% of the energy of making it from scratch, while recycling glass saves around 25%. That said, glass can be recycled again and again without losing its strength or purity— unlike other materials. **Recycling and composting saved the U.S. 86 million ton of CO2 in 2012, the equivalent of taking 33 million cars off the road.**^[4]

You can recycle almost everything from empty aerosols to batteries to bicycles. But some things are still beyond the reach of most local councils and you'll need to make a little more effort. Because recycling keeps valuable resources in circulation, it also helps keep down the cost of goods that you buy.



Yes, but... doesn't most of what we recycle really just end up in a landfill somewhere?

Actually, if you pay attention to your local recycling guidelines, and are careful to place only the correct items in your recycle bin, they will be recycled. Although the most environmental benefit is reached when recycling is done as nearby as possible, even if it's recycled in China there can still be significant carbon savings when compared to using raw materials.

Yes, but... I just don't have room to put all the recycling. Recycling shouldn't increase the amount of room you need—just switch your large kitchen bin for several smaller ones. The space needed will decrease as you learn more ways to reduce and reuse.

Cost: none

**\$ Savings:
none-low**

Effort: low

**CO2 saved: low-
med**

State of Recycling Services

In most U.S. neighborhoods, garbage is collected by a private hauler. Often homes are issued with separate wheeled bins to manage their waste. In some places only garbage is collected curbside, and in others, separated recyclables are also collected. Many haulers now also offer separate wheeled bins or sacks for the collection of compostable yard waste. Most recently, some even allow the addition of food scraps and food-soiled papers to the yard waste bin for compost collection.



Notes:

Next steps, hints, & tips

- Make space next to your bin for recycling containers—then it's as simple to recycle as it is to throw away. You can use cardboard boxes, bags, or get stacking plastic containers.
- With glass jars, just give them a rinse and recycle them. Don't worry about removing labels. Metal lids can be recycled too.
- Recycling bathroom products is often forgotten. Rinse out those empty bottles while you're in the shower. Even cardboard toilet paper tubes can be recycled!
- Check www.earth911.com to find out what can be recycled locally and where to send the stuff that can't. Some examples:
 - used mobile phones can be sent free of charge to several charities,
 - old eyeglasses can be donated to Lions Club International for recycling, and
 - used printer cartridges can usually be taken back to stores that sell them, such as Office Depot or Staples.

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5.8 RECYCLING

The Practical
Action Plan

Cost: none

\$ Savings:
none-low

Effort: low

CO2 saved: low-
med

Local Resources

Local Recycling Resources & Guidelines (complete this section with your local recycling and hazardous waste guidelines)

- Who provides your local recycling service? Is it publicly or privately owned?
- Which items are accepted by your recycling service?
- Which items are considered hazardous waste and cannot be put in the trash? Are there local recycling options for those items?
- Any other useful information?



Notes:

Activism 101

If your neighborhood does not have an option for recycling collection, or if you would like to see upgrades to your community program:

- Contact your local community Councilmembers or attend a Council meeting to ask why the area doesn't have a recycling program and how that can be changed.
- Start a petition that explains the benefits and importance of recycling and requests that local elected officials take actions that help establish a recycling program in your community.
- Refer to <http://www.epa.gov/region4/rcra/mgtoolkit/starting.html#> for a thorough and detailed toolkit called *Starting a Recycling Program*.

5.9 MAKE YOUR OWN COMPOST

Cost: none

\$ Savings: low

Effort: low

CO2 saved: low

Why compost?

When we throw food in the trash, we waste money, take up space in landfills, and create methane gas (see section 4.9 & 4.10 on food waste).

In some U.S. communities, food scraps and food-soiled papers are collected curbside along with yard waste and turned into useful soil amendment, and other communities have volunteer-run public compost piles.

However, if these options aren't available to you, or you grow anything at all, then with very little effort you could soon be making your own homemade compost—a climate-friendly alternative to store-bought, peat-based versions.

The first benefit of composting that you'll notice is a flourishing garden or window box. Compost improves the nutrient levels of your garden's soil, reduces erosion and increases water retention. It will reduce your dependency on expensive, commercially available products which can deplete valuable, carbon-storing peat bogs.

Do compost	Don't compost
Fruit and vegetable waste and peelings	Meat, fish, or dairy—attracts vermin and flies (unless you're using a Bokashi system)
Tea bags and coffee grounds	Hard objects like fruit pits
Crushed egg shells	Invasive weeds
Grass cuttings, leaves	Pesticide-treated plants or yard waste
Shredded paper, soft cardboard, and soiled paper napkins	Glossy paper or shiny cards—because of the chemicals used in the printing process
Human and animal hair	Sawdust from pressure-treated plywood or lumber
Vacuum dust (only from woollen carpets)	Non-biodegradable materials such as plastic, glass, or metal
Manure & bedding from animals that eat ONLY plants	Cat or dog excrement—contains pathogens that won't be killed by the decomposition process

Cost: none-low

\$ Savings: low

Effort: low

CO2 saved: low

Getting started

You can make a traditional compost heap, or use a worm bin. There are many types of compost bins on the market, although perfectly satisfactory ones can be constructed from scrap timber, trash barrels, bricks, or wire mesh. Instructions for making compost or worm bins are widely available.

A worm bin is a container housing a colony of special types of worm that are ideal for composting. Worm bins can be kept indoors (with careful management) or outside, and are ideal for households with no garden, as they produce only a small quantity of worm castings (compost) and a liquid, which forms a concentrated plant food ("compost tea"). There are a variety of worm bins available for sale, complete with "worm starter kits," or you can build your own. Not all compostable materials are good worm food, so it's best to do some research on vermiculture before getting started.



Photo at left:
Transition
founder Rob
Hopkins visits a
community
compost site
run by Kompost
Kids in
Milwaukee, WI.

Yes, but ... I only have pots and window boxes, not a garden. You don't need to have a garden to make and use your own compost. Technology has caught up with modern, compact living, and today's compost and worm bins are totally sealed and come in a range of sizes. Once the composting stage is over, add the mix to a window box or give it to a neighbor who gardens.

I have absolutely no space for a compost or worm bin. Find a neighbor who is an avid gardener or composter, and ask if you can bring over your organic waste once a week to add to their compost bin.

Additional Resources: For composting tips and instructions to build your own composters or worm bins see:

<http://www.treehugger.com/lawn-garden/4-diy-compost-bins-you-can-build-one-day-video.html>

<http://www.wikihow.com/Make-a-Worm-Compost-System>

<http://www.recyclenow.com/reduce/home-composting/making-compost>

5.11 YOUR WASTE ACTION PLAN

Reminder

Suggested actions:

- Learn about “The Story of Stuff” (5.3)
- Reduce and reuse —buy less, fix it, or give it to someone else (5.4)
- Recycle (5.5)
- Make your own compost (5.9)

What other ideas does your group have that aren't covered above? Add them below if you think they are relevant for you.

My actions	Already done	When I'll do this	Notes

Group actions

How can you help each other out in your group? List team actions here (with named person and due date):



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5.12 REFERENCE INFO

References

[1] U.S. Environmental Protection Agency, "Municipal Solid Waste,"

<http://www.epa.gov/waste/nonhaz/municipal/>

[2] Huffington Post, "America's Greenest City: San Francisco Now Reuses 80 Percent of Its Waste,"

10/08/2012, http://www.huffingtonpost.com/2012/10/08/americas-greenest-city_n_1949160.html

[3] U.S. Environmental Protection Agency, 2012 Municipal Solid Waste Report

[4] U.S. Environmental Protection Agency, "Municipal Solid Waste Generation, Recycling and Disposal in the United States: Facts and Figures for 2012,"

http://www.epa.gov/waste/nonhaz/municipal/pubs/2012_msw_fs.pdf

Additional Resources

Websites for fun, creative re-use ideas

<http://www.boredpanda.com/creative-reuse-upcycling-repurposing-ideas/>

<http://www.apartmenttherapy.com/smart-moneysaving-creative-reuse-ideas>

<http://www.earth911.com/home-garden/zero-waste-johnson-family/>

Documentary films about garbage and reducing waste

No Impact Man

Trashed: No Place for Waste (with Jeremy Irons)

Garbage Dreams

Garbage Warrior

Waste Land