

EPA Sustainable Materials Management Web Academy



Preventing Food Waste Upstream: A Source Reduction Approach

November 16, 2017

<https://www.epa.gov/smm/sustainable-materials-management-web-academy>



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Preventing Food Waste Upstream: A Source Reduction Approach

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Sustainable Materials Management Web Academy

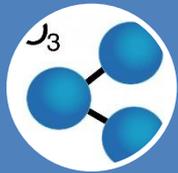


U.S. Environmental Protection
Agency



EPA mission:

To protect human health and the environment.



1971-2016: Cut air pollutants by 70%



93% compliance with drinking water standards.



>9 million tons of virgin materials avoided.





How much food is wasted in the U.S.?

Amount of food that goes uneaten each year:

1/3

Percentage of waste thrown away that is food:

21%

Cost of the food that goes uneaten each year:

**\$161
BILLION**

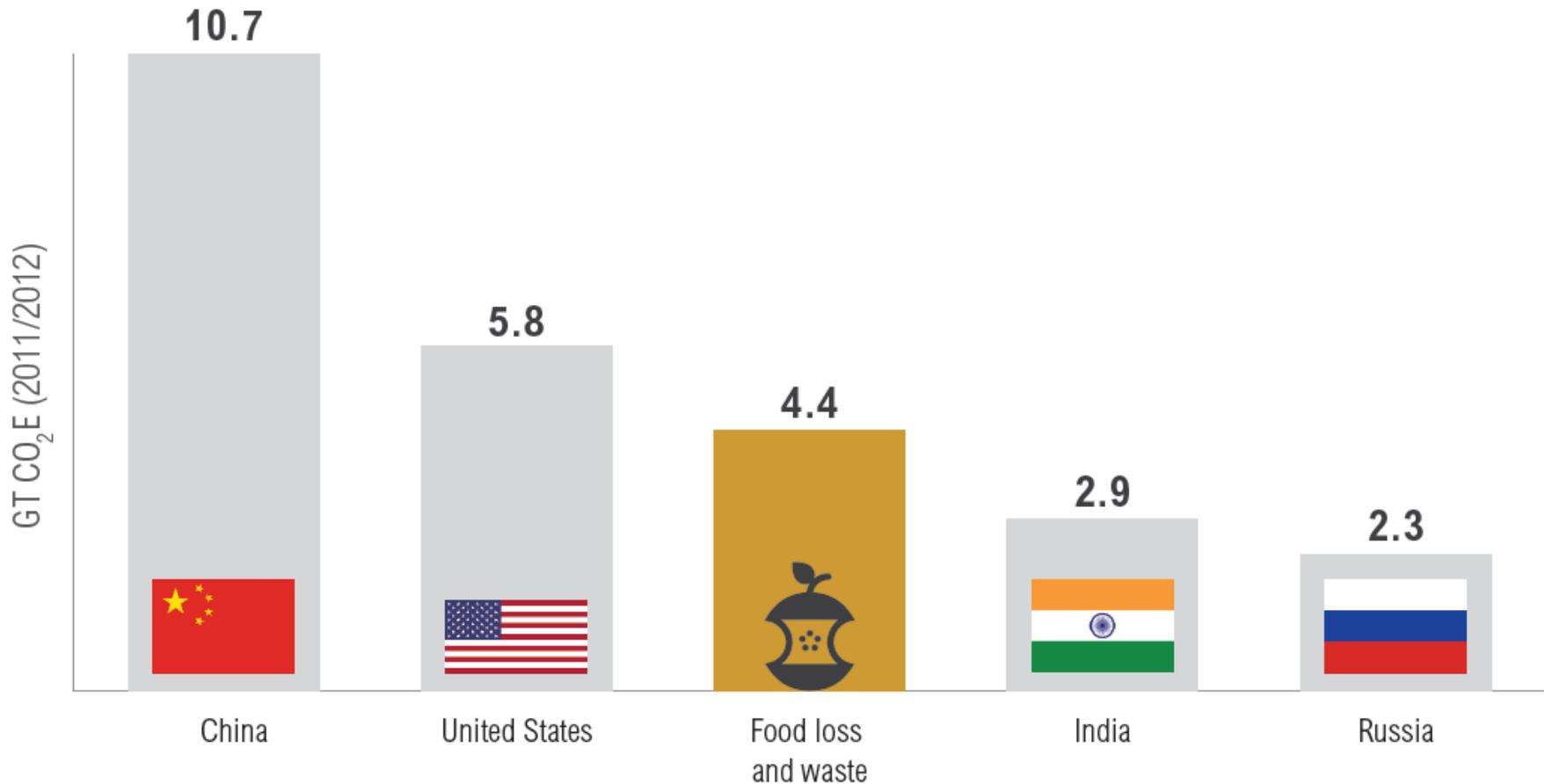
Amount of food waste that got diverted from landfills:

5%

Number of Americans from households that don't always have enough to eat:

**48
MILLION**

If food excess were a country: 3rd largest source of GHGs





[NATION'S FIRST-EVER FOOD WASTE GOAL]

CUT FOOD WASTE IN HALF BY 2030

epa.gov/sustainable-management-food/united-states-2030-food-loss-and-waste-reduction-goal



Food Recovery Hierarchy

Most Preferred

Source Reduction

Reduce the volume of surplus food generated

Feed Hungry People

Donate extra food to food banks, soup kitchens and shelters

Feed Animals

Divert food scraps to animal feed

Industrial Uses

Provide waste oils for rendering and fuel conversion and food scraps for digestion to recover energy

Composting

Create a nutrient-rich soil amendment

Landfill/ Incineration

Last resort to disposal

Least Preferred

EPA 食物回收等級

減少來源
減少食物的剩餘量

給飢餓的人們
將多餘的食物捐給食物庫貧民廚房和庇護中心

給動物
將食物餘渣轉為動物食料

工業用途
提供廢油脂和食物餘渣
用來回收和製造能源

堆肥
創造營養豐富的泥土

填埋/焚燒
最後一招是
填埋

最佳的選擇

最劣的選擇

EPA Jerarquía de Recuperación de los Alimentos

Reducir la fuente
Reducir el volumen excedente de comida generada

Combatir el hambre en la población
Donar la comida sobrante a bancos de alimentos, comedores comunitarios o refugios

Alimentar a los animales
Utilizar las sobras de comida para la alimentación de animales

Usos industriales
Destinar las sobras de comida y el aceite usado para su aprovechamiento energético

Composteo
Crear un abono rico en nutrientes

El basurero/incineración
Disposición al basurero

Más preferido

Menos preferido

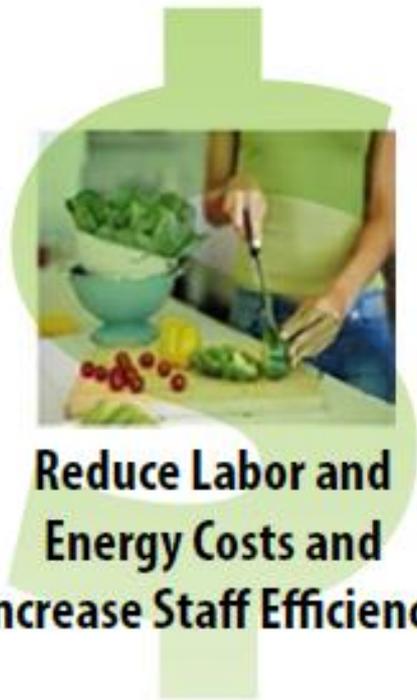
Source Reduction:

Reduce the volume of surplus food generated

SAVING FOOD SAVES MONEY



**Reduce Over-Purchasing
Costs through
Waste Prevention**



**Reduce Labor and
Energy Costs and
Increase Staff Efficiency**



**Reduce
Disposal
Costs**

The Business Case for Reducing Food Loss & Waste:

\$1 invested → \$14 saved!



- | | | | |
|--------------------------------|---|---|---------------------------------|
| Measuring waste |  |  | Selling imperfect produce |
| Training staff |  |  | Creating new products |
| Improving inventory management |  |  | Reducing waste management costs |
| Changing packaging |  |  | Avoiding cost of food not sold |

https://champs123blog.files.wordpress.com/2017/03/report_-business-case-for-reducing-food-loss-and-waste.pdf

Food Recovery Challenge

- **Participants:**
 - Track and measure their surplus food.
 - Move toward their food recovery goals.
- **Endorsers:**
 - Educate on the sustainable management of food.
 - Conduct Food Recovery Challenge outreach.



Track your Source Reduction in the Food Recovery Challenge



Food Waste Prevention and Recycling - Detailed Activities

SPECIFIC ACTION	TOTAL AMOUNT	ESTIMATE % FOOD	UNIT (TONS/LBS)	TOTAL TONS	TOTAL FOOD TONS
<u>Source Reduction</u> through purchase, storage and handling	<input type="text"/>	100% <input type="button" value="v"/>	Tons <input type="button" value="v"/>	<input type="text"/>	<input type="text"/>
<u>Source Reduction</u> through over-preparation and plate waste	<input type="text"/>	100% <input type="button" value="v"/>	Tons <input type="button" value="v"/>	<input type="text"/>	<input type="text"/>
Other <u>Source Reduction</u> Activities	<input type="text"/>	100% <input type="button" value="v"/>	Tons <input type="button" value="v"/>	<input type="text"/>	<input type="text"/>
Donation to Feed people	<input type="text"/>	100% <input type="button" value="v"/>	Tons <input type="button" value="v"/>	<input type="text"/>	<input type="text"/>
Animal Feed	<input type="text"/>	100% <input type="button" value="v"/>	Tons <input type="button" value="v"/>	<input type="text"/>	<input type="text"/>
Other Donations/Reuse	<input type="text"/>	100% <input type="button" value="v"/>	Tons <input type="button" value="v"/>	<input type="text"/>	<input type="text"/>
Composting - mixed organics (Please estimate % food)	<input type="text"/>	100% <input type="button" value="v"/>	Tons <input type="button" value="v"/>	<input type="text"/>	<input type="text"/>
Composting - Food Only	<input type="text"/>	100% <input type="button" value="v"/>	Tons <input type="button" value="v"/>	<input type="text"/>	<input type="text"/>
Anaerobic Digestion w/beneficial use of digest (Please estimate % food)	<input type="text"/>	100% <input type="button" value="v"/>	Tons <input type="button" value="v"/>	<input type="text"/>	<input type="text"/>

Food Recovery Challenge

National 2015 Results

Over 691,000 tons of food were diverted in 2015

- **More than 313,000 tons were composted**
- **Almost 302,000 tons were donated**
- **Nearly 75,000 tons were anaerobically digested**
- **Over 1,000 tons were reduced at the source**

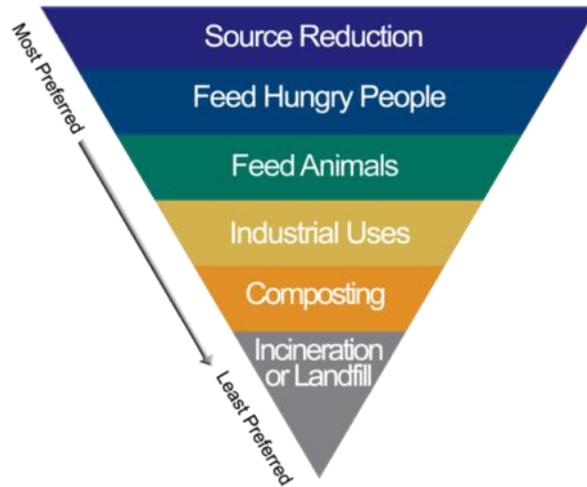
epa.gov/foodrecoverychallenge

[NATION'S FIRST-EVER FOOD WASTE GOAL]

CUT FOOD WASTE IN HALF BY 2030

- Measure your wasted food and set goals.
- Implement source reduction.
- Participate in the Food Recovery Challenge.

Food Recovery Hierarchy



Center for Food Loss
and Waste Solutions

[WWW.EPA.GOV/SUSTAINABLE-MANAGEMENT-FOOD](http://www.epa.gov/sustainable-management-food)

[WWW.FURTHERWITHFOOD.ORG](http://www.furtherwithfood.org)

epa.gov/sustainable-management-food/forms/contact-us-about-sustainable-management-food

Sustainable Materials Management

Food Recovery Challenge



Changing how we think about our resources today for our children's tomorrow