2023 Virtual Food Summit: Food Recovery and Food Waste and Its Impact on Climate Change

October 25, 2023 U.S. Environmental Protection Agency Office of Land and Emergency Management Office of Resource Conservation & Recovery Sustainable Management of Food

What Causes Climate Change?

Human activities release large amounts of greenhouse gases like carbon dioxide (CO2) and methane into the atmosphere.

Most greenhouse gases come from:

- Transportation
- Electricity Production
- Industry
- Businesses and Homes
- Agriculture
- Land use and Deforestation



U.S. Environmental Protection Agency

Climate Consequences of Wasted Food

- When we waste food, the land, water, energy, and other inputs that are used in producing, processing, transporting, preparing, storing, and disposing the food are wasted as well.
- Food loss and waste accounts for 8% of global anthropogenic GHG emissions.
- More than 85% of GHG emissions from landfilled food waste result from activities prior to disposal.

U.S. Environmental Protection Agency

THE EXTRAORDINARY LIFE AND TIMES OF STRAWBERRY

STAGES OF THE U.S. FOOD SUPPLY CHAIN

Food Waste in the U.S.

 66 million tons of wasted food was generated in the food retail, food service, and residential sectors.

 Most of this waste was sent to landfills. **Distribution of Wasted Food Generation** from the Food Retail, Food Service, and Residential Sectors (2019)

Source: https://www.epa.gov/system/files/documents/2023-03/2019%20Wasted%20Food%20Report_508_opt_ec.pdf

Environmental Impacts of U.S. Food Waste: SEPA What resources go into a year of food loss and waste in the U.S.?

*excluding impacts of waste management, such as landfill methane emissions

Greenhouse gas emissions of more than 42 coal-fired power plants

Enough water and energy to supply more than 50 million homes

The **amount of fertilizer** used in the U.S. to grow all plantbased foods for U.S. human consumption

An **area of agricultural land** equal to California and New York

Learn more: www.epa.gov/land-research/farm-kitchen-environmental-impacts-us-food-waste

Quantifying Methane Emissions from Landfilled Food Waste

- In 2020, food waste was responsible for approximately 55 million metric tons of CO₂ equivalents (mmt CO₂e) emissions from U.S. MSW landfills.
- An estimated 58 percent of the fugitive methane emissions from MSW landfills are from landfilled food waste.

In landfills, wasted food breaks down relatively quickly, generating methane – a powerful greenhouse gas – before landfill gas collection systems are in place. Keeping food out of landfills helps tackle climate change. Environmental Impacts of Managing U.S. Food Waste: Previous Food Recovery Hierarchy

Wasted Food Scale

How to reduce the environmental impacts of wasted food

Environmental Impacts of Managing U.S. Food Waste: New Wasted Food Scale

October 2023

EPA's Approach:

- Prevent the loss and waste of food and increasing access to healthy, nutritious food, where possible.
- 2. Increase the recycling of organic materials, including food, yard and tree trimming waste, and other organic (carbon-based) waste.
- 3. Enhance policies to support food loss and waste prevention and organics recycling.

What can we all do? Ways to Reduce Wasted Food at Home

https://www.epa.gov/recycle/preventing-wasted-food-home

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THANKYOU!

https://www.epa.gov/sustainable-management-food

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