Climate Action Strategy 7: Waste Reduction and Management to Support a Circular Economy

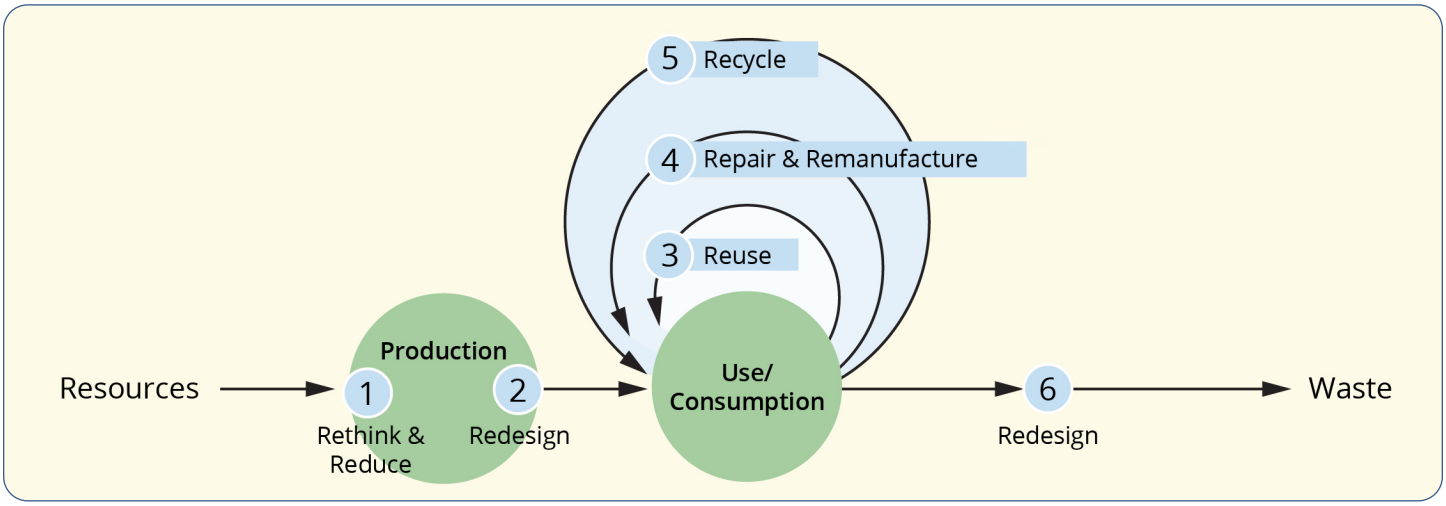
Waste Reduction and Management 101

Disadvantaged communities often bear the brunt of environmental pollution from improper disposal of physical waste or from disposal in landfills next to those communities. This strategy supports activities to keep materials, products, and services in use as long as possible. This can reduce greenhouse gas (GHG) emissions and other pollution during a product's use. Project activities using this Strategy must keep materials out of end-disposal facilities (such as landfills and incinerators). Keeping materials out of disposal facilities will reduce GHG emissions, toxic air pollution, and soil and water pollution. Here are some terms to help you understand this Strategy and begin planning:

Circular economy: A circular economy is generally described as a model of production and consumption. It involves sharing, leasing, reusing, repairing, improving, and recycling materials and products as long as possible. It is based on three main principles: stop waste and pollution, circulate products and materials, and regenerate nature.

Waste generation: A result of inefficient use of materials that results in unused biproducts from operations at households, businesses, and industry. Waste categories include food, packaged goods, electronics, demolition debris, residues from burning, refinery sludges, and more.

End-disposal facilities: Facilities like landfills and incinerators where items are disposed of at the end of their use.



A circular economy will recycle, repair, and reuse materials and products as long as possible.

Waste Reduction and Management to Support a Circular Economy

Waste Reduction and Management Solutions for Community Challenges

Members of the Community Lacking Access to Affordable Food

Community Challenges	Possible Solutions
Many disadvantaged communities experience food insecurity, meaning that people have trouble affording groceries and meals. • Unused food could be better used to meet community hunger and nutrition challenges. • Food waste produces 58% of landfill methane emissions. • Waste going to landfills can have a high cost for people paying to throw out trash and communities maintaining the landfill.	• Implement a community-scale composting program to reduce emissions from food waste. The program should include an educational campaign to inform residents about climate benefits of reducing food waste. • Reduce emissions from food waste by carrying out programs that distribute unused food to residents.

Construction and Demolition Debris Left Behind After Construction Projects or Disaster Recovery

Community Challenges	Possible Solutions

Construction and demolition are linked to poor air and soil quality and to water pollution.
• Disadvantaged communities have fewer resources to respond to and recover from disasters, including the cleanup of debris.
• Poor air, soil, and water quality are more likely in disadvantaged communities, and construction and demolition can make the quality worse.
	• Implement a local policy requiring the donation of usable material from demolition projects.
	• Create a construction and demolition recycling program to divert waste from landfills and incinerators:
	  • Electronics recycling program.
	  • Wood chipping program for plant debris.
	  • Separation of hazardous waste for dedicated waste stream.

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Waste Reduction and Management Solutions for Community Challenges

Plastic Trash Littering the Land and Water in the Community

Community Challenges	Possible Solutions
Lots of single-use plastics (such as plastic water bottles) end up thrown away as litter or landfill waste. • Large amounts of trash in and around landfills can negatively impact quality of life for residents nearby due to pollution, odors, and unappealing appearance of waste. • Plastics may enter waterways and increase water pollution, which is already more common in disadvantaged communities.	• Implement a community-scale recycling program to target plastic waste. • Increase public awareness of the effects of plastic products and other types of trash in waterways. • Create a trash capture program to keep plastics from reaching waterways and stormwater/wastewater systems. • Provide more public trash cans.

Disclaimer: This document was created to help Community Change Grant applicants think through various potential solutions to the problems their community may be facing. All the listed "Community Challenges" and "Possible Solutions" are only examples. We did not attempt to list all possible challenges or solutions.

For more information on waste reduction and management to support a circular economy, see EPA's Circular Economy, Planning for Natural Disaster Debris, Wasted Food Pathways, and Waste Management Hierarchy. See also HUD's Sustainable and Resilient Communities Through Solid Waste Investments and Best Practices After Disasters.

For more information on the Waste Reduction and Management to Support a Circular Economy Climate Action Strategy, read Section I.G and Appendices C and F of the Notice of Funding Opportunity (NOFO).

For further questions regarding technical assistance, please contact EJ_TechAssist@epa.gov or call 1(800) 540-8123.

For questions regarding the Notice of Funding Opportunity (NOFO), please contact CCGP@epa.gov.

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