ReFED’s Roadmap to Reduce U.S. Food Waste

Presented by
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ReFED is a nonprofit collaboration formed in 2015 of over 50 business, nonprofit, foundation, and government leaders committed to reducing U.S. food waste.

ReFED Steering Committee, Advisory Council, and *Roadmap Team*: [Logos of various organizations]
Every year, American consumers, businesses, and farms spend $218 billion (~1.3% of GDP) on food that’s never eaten.

This waste represents 18% of cropland, 19% of fertilizer, 21% of freshwater, and 5% of GHG emissions.
ReFED Food Waste Baseline: Nearly 63M tons of waste per year

62.5 MILLION TONS
FOOD WASTED IN THE U.S. EVERY YEAR

FOOD WASTED BY WEIGHT — 63 MILLION TONS ($218 billion)

- FARMS: 10M (16%)
- MANUFACTURERS: 1M (2%)
- CONSUMER-FACING BUSINESSES: 25M (40%)
- HOMES: 27M (43%)

- $15B
- $2B
- $57B
- $144B
Data Analysis: 13M tons of potential (20%)

**Prevention**
Stopping waste from occurring in the first place

12 solutions  
Most Cost Effective

**Recovery**
Redistributing food to people

7 solutions  
Best at Alleviating Hunger

**Recycling**
Repurposing waste as energy and agricultural products

8 solutions  
Greatest Diversion Potential

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REduce 13.2 M Tons

- Prevention: 2.6 M Tons
- Recovery: 1.1 M Tons
- Recycle: 9.5 M Tons
## 27 Solutions Evaluated

### Prevention Solutions

- **Packaging, Product & Portions**
  - Standardized Date Labeling
  - Packaging Adjustments
  - Spoilage Prevention Packaging
  - Produce Specifications (Imperfect Produce)
  - Smaller Plates
  - Trayless Dining

- **Operational & Supply Chain Efficiency**
  - Waste Tracking & Analytics
    - Cold Chain Management
    - Improved Inventory Management
    - Secondary Resellers
    - Manufacturing Line Optimization

- **Consumer Education**
  - Consumer Education Campaigns

### Recovery Solutions

- **Donation Infrastructure**
  - Donation Software
    - Donation Storage & Handling
    - Donation Transportation
    - Value-Added Processing

- **Donation Policy**
  - Donation Liability Education
  - Standardized Donation Regulation
  - Donation Tax Incentives

### Recycling Solutions

- **Energy & Digestate**
  - Centralized Anaerobic Digestion (AD)
  - Water Resource Recovery Facility (WRRF) with AD

- **On-Site Business Processing Solutions**
  - In-Vessel Composting
  - Commercial Greywater

- **Agricultural Products**
  - Community Composting
  - Centralized Composting
  - Animal Feel
  - Home Composting

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**Criteria for Selection**

Available Data
Cost effective
Feasible
Scalable
AN $18 BILLION INVESTMENT IN 27 SOLUTIONS TO REDUCE U.S. FOOD WASTE BY 20% WILL YIELD $100 BILLION IN SOCIETAL ECONOMIC VALUE OVER A DECADE

<table>
<thead>
<tr>
<th>TOTAL INVESTMENT</th>
<th>NET SOCIETAL ECONOMIC VALUE</th>
<th>BENEFITS PER YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>$18B</td>
<td>$100B</td>
<td>Meals Recovered</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gallons Water Conserved</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Business Profit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer Savings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tons Greenhouse Gas Emissions Reduced</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jobs Created*</td>
</tr>
</tbody>
</table>

Jobs and environmental benefits not included in $100b calculation

*Jobs created is a total number, not annual new jobs
Levers to Drive Action Across all Stakeholders

Four crosscutting actions needed to quickly cut 20% of waste and put the U.S. on track to achieve a broader 50% food waste reduction goal by 2030.

**POLICY**
Commonsense tweaks leading to standardized national policy

**FINANCING**
New catalytic capital and quantified non-financial impacts

**INNOVATION**
5 focus areas and innovation incubator networks

**EDUCATION**
National Consumer and Employee campaigns

ReFED
Innovator Database: refed.com/innovators
FOOD WASTE INNOVATORS BY THE NUMBERS

The Innovator Database categorizes hundreds of innovators by location, business structure, and solution focus area.

- 34 states
- 24 countries
- 70% For-profit
- 30% Nonprofit
- 55% National focus
- 45% Local focus
- 46% Prevention
- 26% Recovery
- 27% Recycling

See all the ReFED Food Waste Innovators at REFED.COM/INNOVATORS
TOP 5 INNOVATOR AREAS

The Food Waste Innovator Database tracks businesses and organizations working in more than a dozen categories.

- Donation Transportation
- Food Product Creation
- Donation Coordination
- Secondary Marketplaces
- Composting

See all the ReFED Food Waste Innovators at 
REFED.COM/INNOVATORS
Introducing the ReFED
U.S. FOOD WASTE POLICY FINDER

DISCOVER THE POLICIES THAT ACCELERATE THE MOVEMENT TO REDUCE FOOD WASTE
DATE LABELING REGULATIONS

**Problem:** A patchwork of state regulations around date labeling creates confusion that causes 20% of consumer food waste.

**Policy Solution:**
Standardize food date labeling laws through overarching federal policy and eliminate unnecessarily strict state date label requirements.

**IMPACT:**
- $2.2B saved by consumers every year
- 398K tons of food prevented from going to waste

Research policies affecting your state
ReFED.COM/POLICY
DONATION LIABILITY PROTECTION

Problem: Federal policy provides a baseline of food donation liability protection, but protections may not apply when nonprofit food recovery organizations charge the final recipient; when food is donated directly to the final recipient; when unnecessary labeling requirements are not met; or when food is past-date but still safe to eat.

Policy Solution

Several states provide additional liability protection above those offered by the federal government.

IMPACT:

MORE BUSINESSES DONATING FOOD

Stronger state liability protections will encourage more businesses to integrate food donation into their systems.

Research policies affecting your state

ReFED.COM/POLICY
**Problem:** While federal tax incentives for food donations exist, certain food producers, like farmers and small businesses, do not sufficiently benefit.

**Policy Solution:** A state-level tax credit can incentivize farmers and other small businesses engaged in farming to donate crops that would go to waste to food recovery organizations.

**IMPACT:**
- $470M in economic value
- 638M Meals recovered

Research policies affecting your state at ReFED.COM/POLICY
ORGANIC WASTE BANS & RECYCLING LAWS

Problem: Laws intended to prevent food from ending up in landfills are proving effective, but only a few states and municipalities have enacted them.

Policy Solution

Five states — California, Connecticut, Massachusetts, Rhode Island, and Vermont — and several localities have passed either waste bans or waste recycling laws for food waste, which prohibit certain entities from sending food waste to landfills.

IMPACT: ROBUST MARKETPLACE FOR FOOD WASTE SOLUTIONS

Strong policy will encourage new recovery and prevention solutions while helping recycling facilities better plan for incoming waste.

Research policies affecting your state
ReFED.COM/POLICY

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