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# North American Cooperation on Food Waste and Organic Waste

Commission for Environmental Cooperation



cec.org

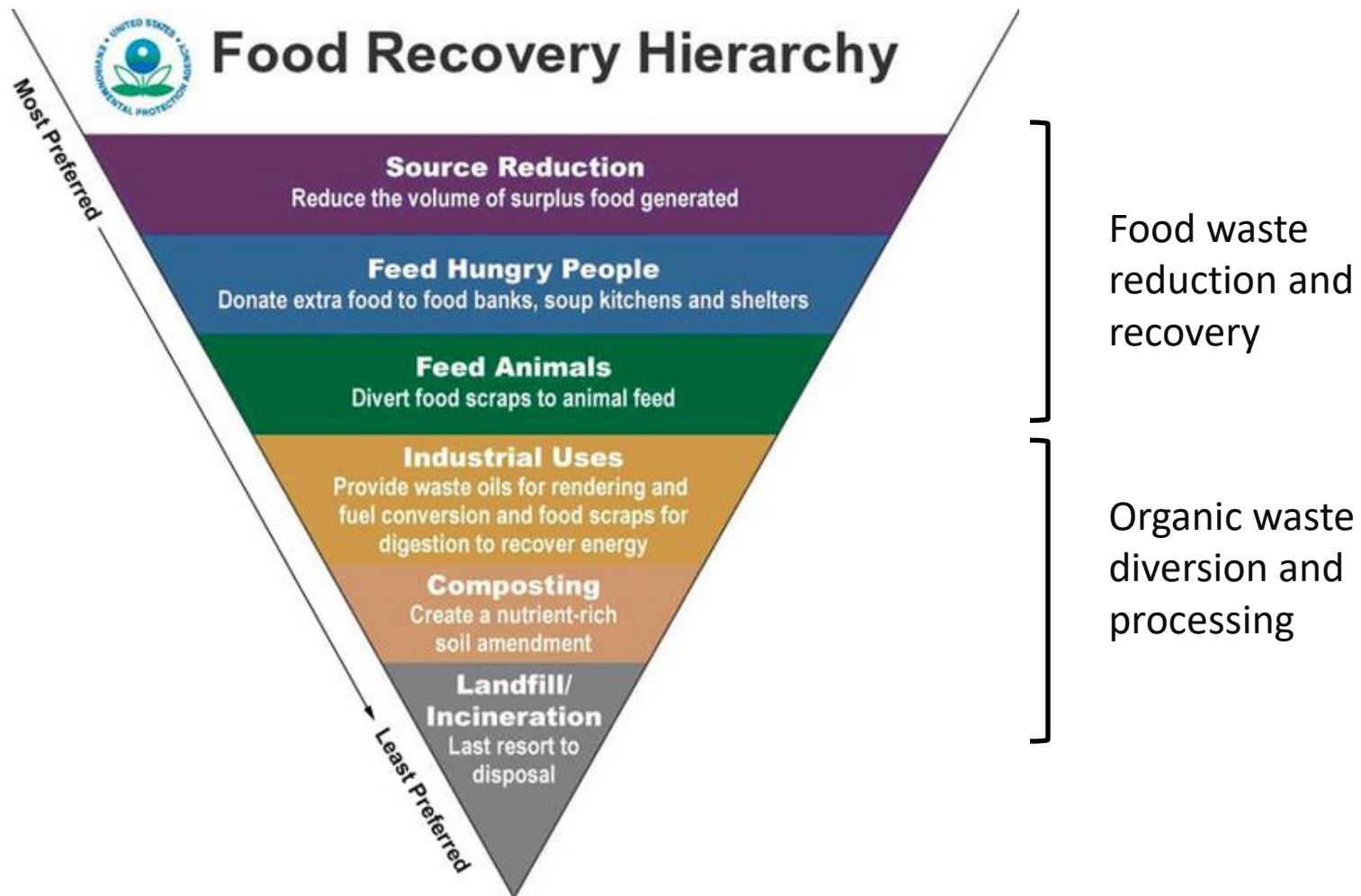
David Donaldson, Program Manager for Green Growth  
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# The Challenge of Organic and Food Waste

- Organic waste now makes up about 50 percent of total solid waste in North America (estimates from 40 to 65 percent)
- US EPA estimates that the waste sector is the third largest source of non-CO<sub>2</sub> GHG emissions globally, accounting for 13 percent of total non-CO<sub>2</sub> GHG emissions (US EPA 2012c)
- FAO estimated that wasted food globally has a carbon footprint of nearly 3.3 gigatonnes of CO<sub>2</sub> equivalent—more than all countries except the United States and China
- Organic and food waste also represent an enormous economic and environmental opportunity



# Where Our Current Efforts sit on the Food Recovery Hierarchy



# North American Initiative on Food Waste Reduction and Recovery

- **Goal** enhance North American capacity for reducing the disposal of organic waste in landfills by exploring and raising awareness of opportunities to achieve food waste reduction and recovery and organic waste processing and diversion
- **Trilateral cooperation** build capacity, promote the sharing of best practices, information resources and tools, and facilitate coordinated and consistent approaches across North America
- **Approach:** managed by the CEC Secretariat and guided by a steering committee comprised of experts from Environment and Climate Change Canada, the US Environmental Protection Agency and *Secretaría de Medio Ambiente y Recursos Naturales* (Semarnat)



# Research Overview

- Define the Problem – quantity, source reduction, technology, measurement, and environmental
- Build the case for action
- Identify challenges
- Identify opportunities and recommendations

# Foundational Reports and White Papers

- Information on the amounts, types, sources, and causes of food and organic waste
- Government policies and incentives
- Approaches to measure, track and report on food and organic waste
- Evaluate current practices and processes to achieve food waste reduction and recovery organic waste diversion and processing
- Identify gaps, challenges, recommendations and strategies to advance food waste reduction and recovery and organic waste diversion and processing in North America



# Research Approach

- Identified stakeholders that reflect key groups and organizations in the private sector, civil society, government, local communities
- Over 200 interviews
- Literature review
- Reviewed on-the-ground programs and projects of government, businesses, non-commercial entities and non-profit
- Consulted with experts





A close-up photograph of a green recycling bin. The bin is made of metal and has a black lid with several blue caps. The side of the bin is painted green and has the word "ORGANICS" in large, white, sans-serif capital letters. Below it, the words "FOR" and "COMPOSTING" are printed in smaller, white, sans-serif capital letters. The bin shows signs of wear, with some rust and peeling paint. The background is blurred, showing some outdoor structures and greenery.

**ORGANICS**  
FOR  
COMPOSTING

**North American Initiative on Organic  
Waste Diversion and Processing**

# North American Initiative on Organic Waste Diversion and Processing

- **Scope** Organic waste includes a variety of materials including food waste, yard and green waste, and paper. Organic waste is generated from residences and industrial, commercial and institutional (IC&I) sources including food and beverage producers, schools, businesses, restaurants and markets.
- **Deliverables**
  1. Webinar series on findings of organic waste research (April, 2017)
  2. foundational report and white paper



# North American Initiative on Organic Waste Diversion and Processing

- Diverting organic waste will contribute to significant reductions in short-lived climate pollutants such as methane, which impact human health and air quality in addition to contributing to climate change.
- Research explores the current situation and potential areas for improvement—with accompanying environmental and other benefits
- Report highlights strategies to reduce short-lived climate pollution and promotes green growth by encouraging sustainable management of materials and sustainable consumption and production.

# Case Studies

- Twelve case studies per country from across the food supply chain link food waste solutions to pragmatic and proven approaches

## **Split- and Small-Cart Pilot Programs: Cities of Sunnyvale and San Jose, California**

The city of Sunnyvale embarked on a nine-month food scrap recovery pilot program from March to December 2015. Roughly 500 households were provided with 64-gallon carts, with 32-gallon capacity on each side. Periodic field audits, load inspections and samplings (including sorting and weighing) revealed the following statistics:

- About 75 percent of all food scraps were properly placed in the correct side of the cart.
- Over 90 percent of single-family households in the pilot areas participated.

Based on Sunnyvale's success, the city of San Jose implemented a similar year-long pilot in September 2015.

## **Best Practice in Nova Scotia: Clear Bags for Organic Waste**

Municipalities in the province began using clear garbage bags, rather than the traditional black opaque bags. This practice was first adopted in Cumberland County and the town of Oxford in 2001; more recently, municipalities along the southern shore of Nova Scotia adopted it in 2014 and 2015. The contents of clear bags are easier for collection vehicle operators to inspect, which in turn makes it easier for them to leave non-compliant bags at the curb. As of 2014, 45 of the 54 municipalities use clear bags for residential and IC&I waste management, which equals 48 percent of the overall population. (The Halifax Regional Municipality, which makes up 40 percent of the remaining population, has yet to adopt the clear bag program.) This practice has increased organics and recyclables diversion by 20 to 40 percent.

*Source:* Compost Council of Canada 2014.



# Recommendations and Strategies

- Addressing Data Shortcomings
- Planning a Successful Organic Waste Diversion and Processing Program
- Project Finance
- Market Collaboration
- Implementing Effective Policies, Programs and Incentives
- Behavioral Change and Educational Initiatives
- Key Recommendations from the Canadian, Mexican, and United States Experience





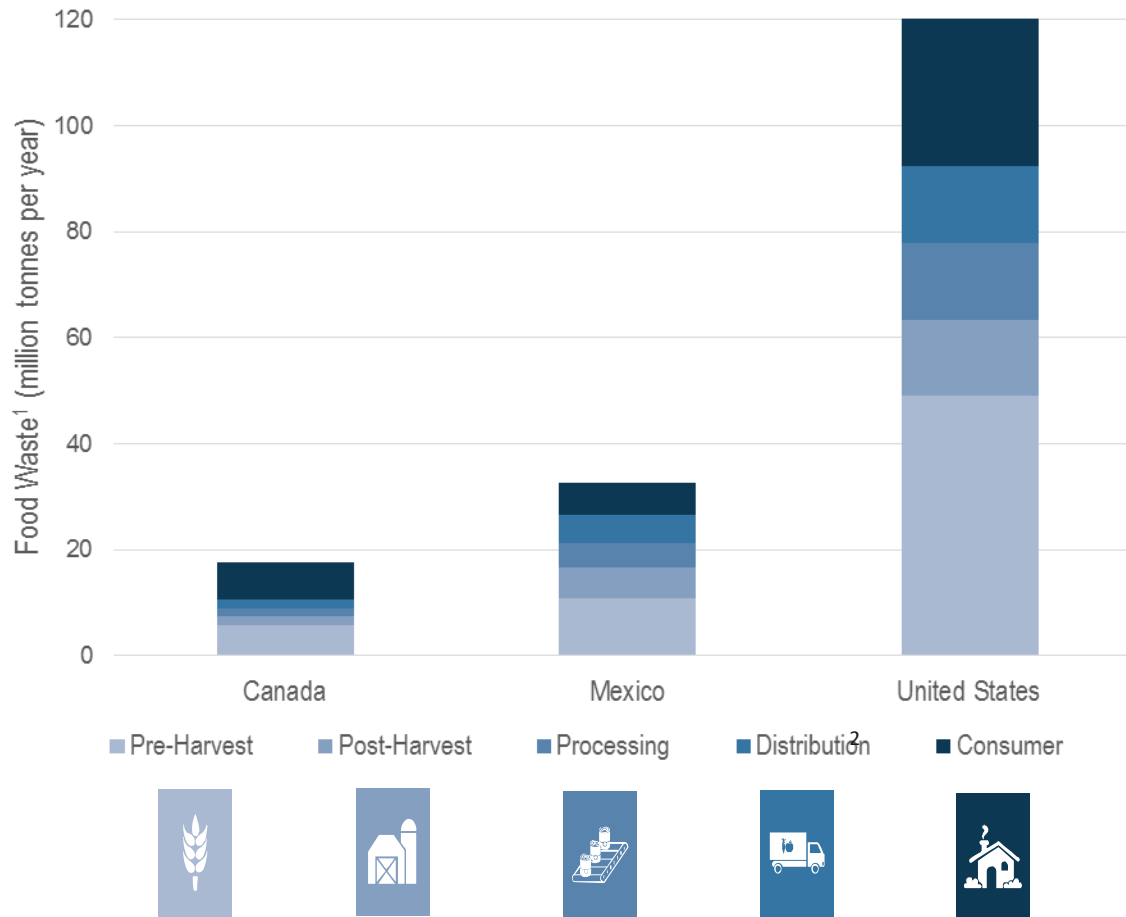
**North American Initiative on Food Waste  
Reduction and Recovery**

# North American Initiative on Food Waste Reduction and Recovery

- **Scope** North American industrial, commercial and institutional sectors (e.g., food processing, wholesale distribution and transport, grocers and restaurants, hospitals, and schools)
- **Deliverables**
  1. stakeholder workshop in Toronto, February 28-March 2
  2. foundational report and white paper to be completed Summer 20017



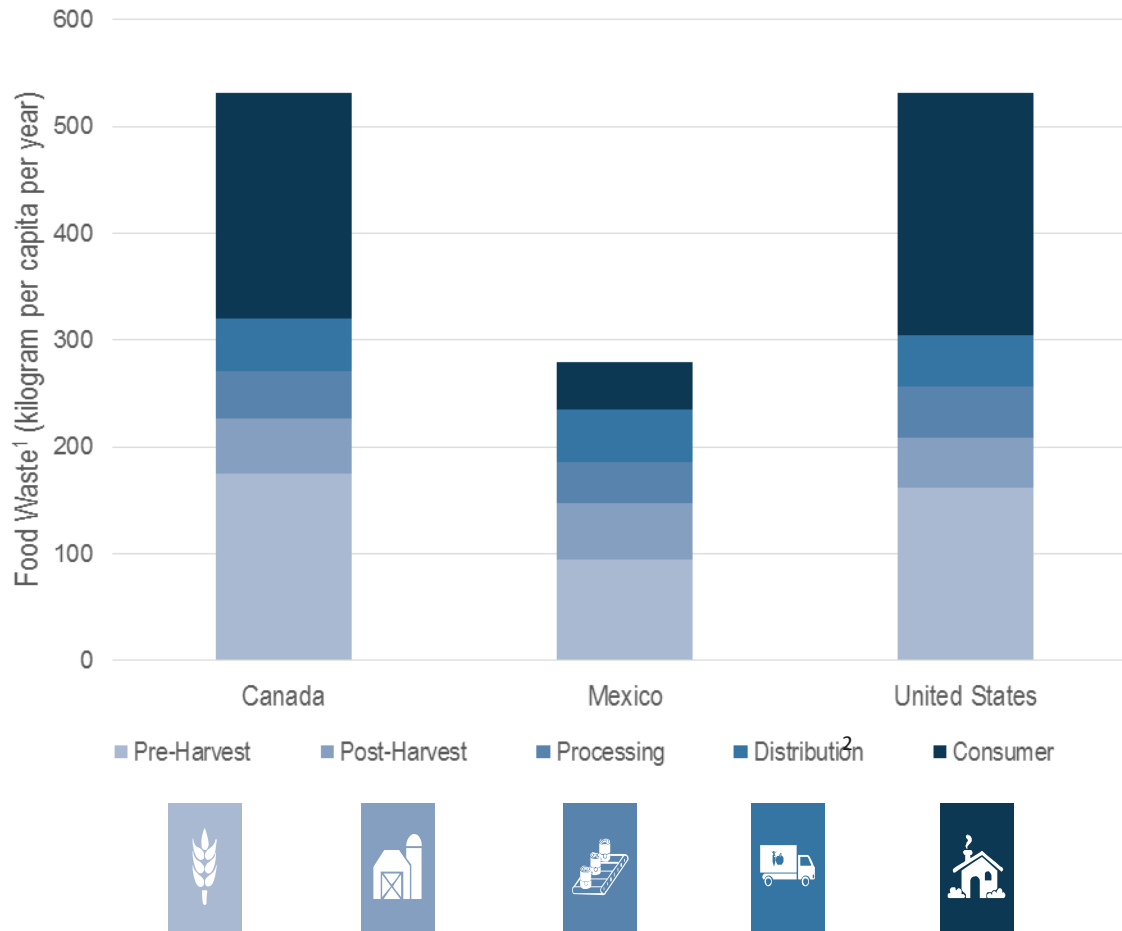
# North American Food Waste By Country



1. Food waste tonnage includes food and inedible parts, based on estimates from FAO Food Balance Sheets
2. FAO data includes the market system in distribution (e.g., retail and foodservice)



# North American Food Waste Per Capita



1. Food waste tonnage includes food and inedible parts, based on estimates from FAO Food Balance Sheets

2. FAO data includes the market system in distribution (e.g., retail and foodservice)

# Case Studies

- Twelve case studies per country from across the food supply chain link food waste solutions to pragmatic and proven approaches

## **Producing Meal from Fish Waste, La Nueva Viga Fish Market, Mexico City**

- Before La Nueva Viga started selling fish waste to meal processing, they paid for collection of fish waste \$8,379 USD per month. Now, receive \$11,229 USD per month of revenue for fish waste processing.



## **Grocery Meat and Food recovery Terminal, Montreal food bank**

- Food recovery hub that specializes in recovering perishable food, such as meats, vegetables and fruits. Over 85% needs to be refrigerated or frozen, which is opposite to most food banks which recover mostly dry goods.



# North American Workshop



Workshop presentations at: <http://www.cec.org/news-and-outreach/events/north-american-workshop-food-waste-reduction-and-recovery>

# Recommendations and Strategies

- National Task Force on Food Waste Prevention for Implementation Coordination
- Food Policy and National Food Waste Strategy
- Support Voluntary Food Waste Reduction Initiatives for Industrial, Commercial and Institutional Sector
- Standardize Date Labeling
- Cosmetic Food Grading Changes
- Improving Supply Management (Mexico)
- Support Innovation in Food Waste Source Reduction & Recovery
- Develop Review and Approval Process for New Food Products from Recovered Food
- Facilitate an Efficient Food Donation System
- Standardize Measuring, Tracking and Reporting Methods
- Track and Report Performance Over Time
- Collaborate between Departments across Levels of Government to Augment Existing Reporting Frameworks

# CEC & UN Environment Video Contest

- Food Forward
- Zero Waste Market
- Grupo Ola Verde

A green banner for the video contest. It features three video thumbnails: "Canada" showing a "ZERO WASTE MARKET", "Mexico" showing people at a table with food, and "United States" showing a person holding a large sculpture of a globe made of food. The banner includes a "Video Contest" logo in the top right corner and social media information at the bottom.

Canada Mexico United States

  CECconnect  @CECWeb  RONA.UNEP  @UNEPRONA 



# Thank You to our Collaborators

- JPAC for hosting this meeting
- The World Bank for collaborating on food waste meeting in Washington DC, November 2017
- Experts consulted by our steering committee
- Experts who have participated in interviews and given their input at public meetings

# For More Information



cec.org

**North American Initiative on Organic Waste  
Diversion and Processing:**

[www.cec.org/organicwaste](http://www.cec.org/organicwaste)

**North American Initiative on Food Waste  
Reduction and Recovery:**

[www.cec.org/foodwaste](http://www.cec.org/foodwaste)

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