The Connection between Food Waste, Sustainability and Food Security

Cut Waste, Grow Profit Forum

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The Conference Board of Canada launched the Centre for Food in Canada (CFIC).
Centre for Food in Canada (CFIC)

Twin Purposes:

• Raise public awareness of the nature and importance of the food sector to Canada’s economy and society; and

• Create a shared vision for the future of food in Canada, expressed in a Canadian Food Strategy - to meet our need for a coordinated long-term strategy for change.
Need for a Canadian Strategy

• Despite being a mega-issue, food suffers from a lack of a truly grand vision—a Canadian Food Strategy—that connects all the parts and all of the stakeholders.

• Other countries have already developed their own national food strategies—including U.K., Scotland, Sweden and South Australia.
5 Pillars of CFIC and the Canadian Food Strategy (CFS)

Source: The Conference Board of Canada.
Reducing Food Waste Matters

• Food waste is an important cross-cutting theme.

• Connects to 3 of 5 main pillars of CFIC’s Canadian Food Strategy:
  • Environmental Sustainability;
  • Consumer Security; and
  • Industry Viability and Prosperity.
Food Waste in Canada

• Developed countries waste a high proportion of their food!
• Canada is no exception – est. $27 billion of food is wasted annually.
• Result: reduced profits all along the value chain, higher prices, negative impacts on the environment, and more food insecurity.
• Much waste is avoidable.
Cdn. Food Waste Breakdown

Source: Gooch et al., George Morris Centre.
HH Expenditure on Food Waste

- 40 per cent of all food produced is wasted.
- Est. annual cost of food waste = $27 billion.
- 51 per cent of waste comes from households = $13.77 billion.
- Each Canadian household spends about:
  - $1,034 on wasted food each year;
  - $86 of food waste per month.
CFIC Household Survey

• “On average, how many grocery bags of food that you buy each week do you end up throwing out?”:
  • 10.9 per cent – 2 or more bags a week;
  • 22.8 per cent – one bag a week; and
  • 66.3 per cent – zero bags a week.
CFIC HH Survey – Reasons for Waste

- Someone in household dislikes taste
- Preparing too much
- Not eaten by "best before" or "use by" dates
- Packaging too large
- Purchasing too much

Legend:
- None
- Very little
- Some of it
- Most of it

www.conferenceboard.ca
CFIC HH Survey – Factors in Food-Purchase Decision Making

Locally produced
Quality
Safety
Price
Nutritional value
Environment

- Not important / Not very important
- Somewhat important
- Very important / Extremely important
Impacts of Food Waste on Environmental Sustainability and Food Security
Food Security Definitions

• **Food Security**: “when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”.

• **Food Insecurity**: state where nutritious food is unavailable, inaccessible, or the supply is unstable.
Food Waste & Environmental Sustainability

• Food waste = wasted resources.
• Large negative impact on environment.
• Resources required to produce, process food products are often finite and costly.
• Areas of Concern:
  • Quality of water, air, and soil; and
  • Food waste, energy use, and landfills.
Water and Energy Use

• “Agriculture is largest human use of water.”

• U.S. uses 70 per cent of its freshwater supply for agricultural production.

• Over 25 per cent of the water is accounted for by wasted food – approx. 40 trillion litres/yr.!

• Average U.S. farm uses 3kcal of fossil fuel energy to produce 1kcal of food.

• Energy consumption to process food in Canada continues to rise each year.
Energy Use Along Value Chain

• Entire value chain relies on energy and contributes to greenhouse gas emissions:
  • Tilling land and sowing crops.
  • Application of fertilizers and pesticides.
  • Shipping harvested products.
  • Washing and packaging.
  • Processing.
Energy Use Along Value Chain

• Entire value chain relies on energy and contributes to greenhouse gas emissions:
  • Manufacturing & shipping of packaging.
  • Manufacturing and shipping of processed products to retailers.
  • Retail display and packing.
  • Waste collection, recycling, land-filling.
Food Waste in Landfills

- In U.S., food waste occupies largest part of landfills – 35 million tons in 2010.
- Decomposition of food waste in landfills generates greenhouse gases such as methane and carbon dioxide.
- Methane gas has global warming potential 20-25 times higher than carbon dioxide.
- About 20 per cent of Canada's methane emissions come from landfills.
Sustainability and Prosperity

• Action will improve competitiveness and prosperity of Canada’s food sector.

• Draw on international and domestic best practices to minimize and reuse food waste, and operate more sustainably, reducing environmental impacts.
Sustainability and Prosperity

• Good for business (brand building, cost cuts, consumer loyalty)
• Good for the environment (saves resources, reduces impacts).
• Companies are making progress towards more sustainable practices, but more can be done.
Food Insecurity: Impacts

• Hunger due to severe food shortages, resulting from accessibility and cost issues.

• Consumer cannot afford to regularly buy fresh, nutritious foods (e.g. milk, fruits, vegetables, chicken, fish).

• Often reliant on food bank provisions (non-perishable, heavily processed foods).
Food Security: Impacts

• Negative health impacts on children’s development and adult health due to imbalanced diet, low nutrition intake etc.

• People with lower nutrient intake get sick more often, miss more work, develop more chronic diseases and mental health disorders, and incur longer hospital stays.
Food Security in Canada

• Major problem

• 961,000 or 7.7 per cent of Canadian households are ‘food insecure’ (all/part- of time) according to recent survey.

• Nearly 2 million people.

• Access to food is very threatened by the cost of food and income levels.
More specifically, food insecurity is influenced by:

- Income;
- Costs of food and non-food essentials;
- Geographic isolation;
- Lack of transportation; and
- Food literacy.
Improving Food Waste Impacts on Consumers & Environment
Food Security in Canada

• Reducing food waste along the value chain can help companies cut costs - savings that can be passed along to consumers in lower prices.

• Biggest impacts among key product groups that have the highest rates of food waste and prices – e.g. fruits, vegetables, dairy and meat.
Food Security Programs

• Increase ‘affordable food’ options can help to reduce food insecurity in Canada.

• One answer is to establish targeted ‘affordable food’ programs to use the 30 per cent of fruits and vegetables produced in N.A. that currently aren’t “pretty enough” to be sold.
Food Redistribution Programs

• Food “waste” redistribution/rescue programs can help the food insecure access more fresh, and nutritious foods.

• Supply food banks and civil society organizations – distribute food in low income communities.
Reduce Waste & Improve Security

• Update regulations – provide tax incentives and introduce Good Samaritan laws to encourage and provide legal protection (e.g. from liability) for orgs. that contribute to food redistribution programs.

• Build food waste plans more centrally into government programs, at all levels.
Reduce Waste & Improve Security

• Expand and scale up operations of food redistribution/rescue programs (e.g. Second Harvest, Quest Food Exchange) across Canada, focus on the most at-risk communities.

• Engage farmers and local businesses to donate.
What More Can Be Done...

• Apply “Lean” management principles at all stages: maximizing customer value while minimizing waste.

• Innovate and collaborate to identify new creative solutions to reduce and use food waste.

• Use public-private partnerships to engage public and encourage behaviour change.
What More Can Be Done…

- Promote food waste reduction publicly.
- Provide info and tools on how to cut waste at all stages in supply chain: farmers, shippers, manufacturers, dairies, retailers, hotels, hospitals, restaurants, food services.
- Share best practices and implement successful initiatives from other countries (e.g. U.K., U.S.).
What More Can Be Done...

• Target food waste in the home.
• Educate Canadians about *the amount* of food wasted and *how to improve*.
• Provide households and individuals with practical ‘use it, don’t lose it’ strategies and techniques, based on real life behaviours, identified in consumer surveys and case studies.
Observations

• Food waste reduction resonates with Canadians as a concept/idea.
• Big challenge: how to make it work for busy people with modern consumption lifestyles.
• Industry could improve brand, increase sales, by publicly linking waste-cutting efforts with feeding the food insecure and improving health.
Observations

• A combination of gov’t regulations and programs, industry strategies, civil society efforts, and consumer change is needed.

• It is worth the effort - a ‘win-win-win’ that is vital to industry prosperity, environmental sustainability of the food sector, and the well-being of consumers!