Canadians waste an astonishing amount of food, with significant environmental, economic and social consequences.

To address this problem, the National Zero Waste Council aims to bring together businesses, NGOs and governments in a collaborative effort to reduce food waste.

This document is an initial, draft strategy aimed at sparking discussion and feedback from collaborators who wish to help us achieve this goal.

We believe that the following multi-year plan, with the collaboration of governments, businesses, academics, community groups and others, will deliver on food waste reduction and result in these other benefits:

• Lower garbage disposal costs for local governments,
• Reduce greenhouse gases,
• Promote innovation and clean technology,
• Build community resiliency by increasing family access to food, and
• Engage Canadians in becoming part of the solution.

This draft strategy reflects the National Zero Waste Council’s commitment to lead and unite stakeholders and change agents in transforming our relationship with food waste.

We welcome your feedback, ideas and involvement.
The Opportunity

About a third of food produced and distributed in Canada never gets eaten, a grossly inefficient use of resources that forces local governments into excessive costs for waste disposal, generates avoidable greenhouse gases at all stages of the production and distribution chain, and costs our economy up to $100 billion annually\(^1\). Producers, suppliers and retailers account for about half of this waste, while consumers are responsible for the other half.

This problem is not unique to Canada. Global estimates are that nearly half the food produced never gets eaten. As a result, preventing and reducing food waste is being flagged as a matter of urgency around the world, prominently featured as an action item for governments, businesses, and consumers.

For example, in 2013 the EU agreed to reduce food waste 50% by 2020, providing a focal point and rationale for an array of actions by member states. In the UK, organizations across the food system have agreed to a voluntary 20% food and drink waste reduction target over 10 years. The target has been supported by a consumer education campaign. France and Italy have passed laws requiring supermarkets to donate their waste food to charities. Spain, France and Belgium have implemented tax incentives and several countries have versions of Good Samaritan laws, all to encourage food donations.

In 2015, the US Department of Agriculture and the Environmental Protection Agency announced a goal to reduce food loss and waste by 50% by 2030. A proposed Food Recovery Act includes tax incentives for farmers, retailers and restaurants to donate foods, a strengthened Good Samaritan Act, and an infrastructure fund to support construction of large-scale composting to accompany banning organic materials to landfills\(^2\). The Environmental Protection Agency has developed a food waste reduction tool kit, Food, Too Good to Waste, for community or school groups\(^3\). In addition, a major environmental NGO and the Ad Council have launched a national communication campaign to increase awareness among consumers about the amount of food they waste, the environmental and economic costs of that waste, and to encourage actions to reduce it\(^4\).

In Canada, a number of isolated initiatives are under way. For instance, in Ontario, Quebec and British Columbia, the provincial governments have implemented tax incentives to encourage farmers to donate to charitable organizations food that might otherwise have gone to waste. The BC Centre for Disease Control has issued guidelines on what constitutes safe and nutritious food, to facilitate the donations of food from businesses in the food supply chain to community organizations. Organics bans are in place in Halifax and Nanaimo and Metro Vancouver. Quebec is considering a province-wide organics ban by 2020. Provision Coalition is working with Canadian food and beverage manufacturers to support the development of new waste reduction technologies. And Metro Vancouver and York Region have carried out consumer awareness and behaviour change campaigns.

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\(^2\) [https://pingree.house.gov/foodwaste](https://pingree.house.gov/foodwaste)
\(^4\) [http://savethefood.com](http://savethefood.com)
This proposed National Food Waste Reduction Strategy takes the best of what has been developed in Europe and North America. Its essence is to change practices and techniques at key leverage points for waste reduction along the supply chain – from food production through to disposal as garbage – with an array of incentives, disincentives, information sharing, advocacy and targeted investments.

Its objectives are to:

- Dramatically reduce the amount of food waste disposed in landfills, the associated GHG while reducing the financial costs of managing food waste for local governments,
- Stimulate the growth of innovative businesses that use food scraps to generate compost, animal food and alternative energy, and
- Support national action on climate change.

Its approach is to:

- Develop a collaborative plan with businesses, governments, and NGOs;
- Build on momentum being generated by others working on food waste in Canada, and
- Engage the public in supportive actions.

The Strategy

Cross-sector collaboration is foundational to the strategy, and is a strength that the National Zero Waste Council brings to the table. Solving food waste will involve working across mandates, leveraging opportunities and strengths of different partners, and developing new approaches to changing consumer behaviour, business practices, and policy development.

The Strategy is built on three pillars:

The following sections identify the core actions that make up each pillar of the strategy.

1. **Policy – National, Provincial and Local**
2. **Innovation – Technology and Community Infrastructure**
3. **Public Engagement – Encouraging New Behaviours**

1. **POLICY – NATIONAL, PROVINCIAL AND LOCAL**

Managing waste has historically been a responsibility of local governments in Canada, with important policy initiatives, such as organics disposal bans, taking place at the municipal and regional level across the county. However, local governments operate with fiscal constraints and limited mandates that prevent securing significant reductions in food waste. Other orders of government must be involved. The National Zero Waste Council has identified four important areas for policy development.
1a Federal Government – Establish a national food waste reduction target

Establishing a national target for reducing food waste provides a common, measurable objective to drive actions by all levels of governments, businesses and NGOs. A national target of 50% food waste reduction by 2030 would align with the U.S. target, elevate the awareness of the issue, demonstrate the commitment to act, and serve as a rallying point for public and private sector strategies and initiatives.

The National Zero Waste Council will be using its relationships across governments, businesses and NGOs to support a national dialogue on the importance of a national target and how to best deliver on it across the food chain.

1b Federal Government – Stimulate increased donations of food to charities through a tax incentive

Ensuring that nutritious food is diverted from landfills and is directed to food banks and other charities who contribute to community resiliency is a critical component of a suite of policies to reduce food waste. In many countries, including the US and Britain, food donations have helped reduce food waste. To provide the social benefits desired, tax receipts would be issued only for the donation of safe, healthy, nutritious food.

Most businesses need an incentive to donate, because they incur additional costs associated with sorting, storage, and transport of donated food. A tax incentive that allows businesses to offset some of these additional expenses could increase the volumes of nutritious foods diverted from composting or the landfill, and directed instead to programs that increase community resiliency.

The National Zero Waste Council will work to advance the tax credit by continuing to communicate and support champions in support of the policy, support donors and receiving agencies with co-developed materials, and work with charities and local community organizations to help identify and respond to their barriers to receiving more nutritious foods.

1c Federal Government – Reduce confusion over “best before”, “use by”, “sell by” and “expiry” dates

 Buttressing policies and practices that support food donations is clarity on “best before” and food expiry dates. The Canadian Food and Inspection Agency (CFIA) has a clear role to play in establishing labelling policies that protect consumer health while limiting food waste.

The CFIA can ensure that policy changes align with proposed changes in the US Food Date Labelling Act and similar legislation in the EU, and that consumer confusion leading to unnecessary disposal of perfectly edible and safe food is reduced.

The National Zero Waste Council will assist in consumer and business education efforts around “best before” dates.

1d Local and Regional Governments – Implement local organics disposal bans

Several Canadian cities and regions have policies that ban organic materials from landfills, and the Province of Quebec is considering implementing one by 2020. These bans have dramatically reduced food disposed in landfills, and stimulated the growth of new businesses and technologies that turn food scraps into compost, bioenergy and high-quality animal feed.
These revenue-generating businesses can potentially reduce the costs of waste disposal for local governments, institutions and businesses, and create valuable products. For instance, composting facilities typically accept food waste at a lower cost than do landfills, and some, such as anaerobic digesters, create both compost and methane that can be substituted for natural gas.

To encourage the implementation of organics disposal bans across Canada, the Council will:

Provide online information encouraging the introduction of organic disposal bans at both the local and provincial levels. This will include support for the creation of large-scale, industrial composting facilities and anaerobic digesters and their eligibility for federal funds.

Recommend to provincial and local government bodies with responsibilities for landscaping and site reclamation, policy changes to facilitate the growth of markets for compost;

Provide outreach and education, through webinars and other means, to other local governments and key industry stakeholders such as waste haulers on best practices in regards to the design and implementation of organics disposal bans and the recovery of nutrients and energy from food waste;

Provide downloadable communications materials with proven success in encouraging the separation of food scraps from garbage for all community sectors, including schools, apartments, restaurants, other businesses and institutions;

Provide online recognition and support for food waste diversion to facilities producing animal feed.

2. INNOVATION – TECHNOLOGY AND COMMUNITY INFRASTRUCTURE

Preventing food waste throughout the supply chain – from processing to final waste diversion from landfill – presents a wide-range of opportunities in technology innovation, with potential job growth across the country. Research and development as well as investment in new technologies is already being led by Canadian start-ups, established businesses, and business associations who see food waste as a huge waste of revenue.

2a Stimulate innovation in techniques that reduce food waste

Some innovative businesses in Canada are developing techniques that will reduce food waste, such as innovation in nanotechnology that prolongs the shelf life of food or in food-sorting infrastructure that helps reduce food spoilage. While research is being driven by the business sector, the federal government can ensure this kind of innovation is supported by eligibility categories in the Natural Sciences and Engineering Research Council (NSERC) and other industrial and academic partnerships under Industry Canada.

The National Zero Waste Council will work with its members and supporters to host knowledge-transfer sessions that identify opportunities for new markets and re-sell opportunities, as well as innovative processing options for food off cuts and imperfect produce. The Council will stimulate progress by hosting roundtables with industry and industry associations such as Provision Coalition, along with local government representatives.
2b Federal Government – Support new, green technologies that enable efficient recovery of green energy and compost from organics

Landfill bans that direct food waste from garbage to the composting and anaerobic digestion are an extremely important policy tool to reduce greenhouse gas emissions (see 1D above). However, these facilities are capital intensive, and could be beyond the reach of many municipalities. Continued federal support for the construction and operation of composting and anaerobic digestion (biofuel) facilities is needed. The Federation of Canadian Municipalities’ Green Municipal Fund currently provides local governments financial support interested in building public composting facilities and this will need to continue.

Other opportunities include working with organizations like the Solid Waste Association of North America and the Compost Council of Canada, academic institutions such as the University of British Columbia and the Environmental Research and Education Foundation (EREF) in Ontario to undertake applied research to develop new technologies for recovering materials and energy from organics. The Council will encourage the federal government to invest in research and development, and in facilitating partnerships around clean technology innovation that targets food waste and GHG capture and transforms it into a green energy source.

2c Facilitate increased donations of food to charities by encouraging investments in necessary infrastructure

Technological innovation is not only transforming food processing and waste management infrastructure, it is also helping transform and make more robust community infrastructure within Canada. New applications and virtual platforms facilitate links with businesses and consumers or charities, and in doing so reduce food waste by preventing spoilage, and better support timely food recovery and rescue. Local food hubs, community fridges, as well as school meal programs can all better engage in food recovery and rescue if the right mechanisms and infrastructure is in place. Development of apps and virtual networking systems can help facilitate the kind of connections required to address ensure perishable foods can effectively be delivered to agencies and that special dietary needs can be addressed – for instance linking Muslim communities with available halal foods.

Good food rescue and recovery takes place when strong community infrastructure is present. Currently, in many circumstances the lack of cold storage and transportation prevents charities from receiving and distributing fresh nutritious foods to their clients and communities. To address this barrier, partners in the implementation of this strategy will help identify opportunities for receiving agencies to develop proposals for the development of systems that will ensure the timely and efficient acceptance of safe and nutritious foods and the acquisition of transportation and cold-storage facilities that will enable greater capacity to distribute perishable food. The Council will also advocate that the Federal Government provide private and community sector access to national infrastructure funds that would assist in the design and development of cutting edge, cold-chain storage that enhance food redistribution while reducing greenhouse gas emissions.

3. PUBLIC ENGAGEMENT – ENCOURAGING NEW BEHAVIOURS

With nearly half of food waste created at the consumer level, significant reductions in waste and the associated drop in greenhouse gases will require small but deliberate changes in the
everyday life of Canadians. To achieve the results in this Strategy, Canadians will need to adopt new behaviours in two areas. First, to reduce wasted food – buying food that, for various reasons, never gets eaten – they will need new food purchasing, preparation and storage habits. Second, in order to ensure new investments in composting and bioenergy plants are successful they will need to dispose of food scraps in compost bins, rather than the garbage.

3a Develop a national food waste reduction campaign aimed at consumers

The Value Chain Management Centre estimates that Canadian consumers spend $14.6 billion on food that is wasted. This waste increases families’ food budgets, burdens municipalities with unnecessarily high garbage disposal costs, causes methane emissions from food rotting in landfills and, through the inefficient use of resources, generates additional GHG emissions through the entire food chain.

Communication campaigns to change behaviour have been developed in the US, the UK and Canada. All conclude that the main causes of the waste are over purchasing, cooking portions that are too large while leaving unused leftovers, and inadequate storage practices. All campaigns include strategies to engage consumers in new habits to overcome these barriers.

The most successful to date has been the UK’s Waste and Resources Action Program’s Love Food Hate Waste campaign.

Since its launch in 2007, avoidable household food waste has been cut by 21% over five years, saving UK consumers £13 billion. The US Environmental Protection Agency’s food waste reduction toolkit, Food, Too Good to Waste, was used in targeted, one-month pilot projects in Honolulu and King County, Washington, and resulted in waste reductions of 20 and 28%.

Convincing people to change behaviour is challenging at the best of times, and particularly so for habits as personal and deeply ingrained as food purchasing and preparation. To be successful a national food waste reduction campaign needs several important elements:

- Wide advertising to gain attention and raise awareness,
- A convincing argument for change,
- A full suite of activities that are easy to access, understand and use to trigger new habits, and
- “Face-to-face” activities that engage consumers in making changes.

The National Zero Waste Council is developing a comprehensive campaign with all of these elements and will approach a range of partners to support a national advertising campaign. It will leverage member and co-founder Metro Vancouver’s experience of its own regional Love Food Hate Waste campaign, which provides an array of activities designed to trigger new behaviours among individuals and families in relation to food waste. The Council will work through its local government partners to develop wide access to its materials.

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7 http://www.lovefoodhatewaste.com
8 http://www.lovefoodhatewaste.ca/Pages/default.aspx
9 http://www.lovefoodhatewaste.com/content/facts-about-food-waste-1
To provide “face-to-face” activities, the Council is working with major grocery chains to look at options for point-of-purchase consumer engagement, and investigating opportunities to work with NGOs to activate their members. In the UK, the participation of grocery chains in engaging customers at the point of purchase was considered a critical success factor. Discussions are under way with the UK’s Waste and Resources Action Program on licensing agreements that support campaign activities.

3b Provide educational materials to encourage the separation of food scraps from garbage

Organics bans are a necessary and powerful tool to remove food from landfills and encourage the introduction of composting and biofuel facilities. However, their success depends on individuals in their homes, businesses and institutions separating food scraps from garbage. When Metro Vancouver introduced its organics ban it accompanied the policy change with a broad advertising campaign to encourage the new behaviour.\(^\text{11}\)

In addition, to reduce confusion about how to recycle organic materials, Metro Vancouver developed signage to encourage consistency across the region. Seeing similar signage whether at work, school, or a common recycling room, helped reduce contamination and increase recycling rates.\(^\text{12}\) The Metro Vancouver Organics Disposal Ban began in 2015, and the combination of public and private sector education with enforcement of the Ban increased the total amount of organics recycled by more than 18% in its first year.

The National Zero Waste Council will support municipalities who are considering introducing organics bans by providing all of these materials in a format where local governments, businesses or NGOs can download the materials and insert their own branding. In this way policy change will be encouraged and success facilitated.

3c Provide educational and communication materials supporting charitable giving of nutritious food

Increased charitable giving of safe and edible food is an important objective for countries leading on food waste reduction. Incentives to support charitable giving are found above under policy changes. However, to best support those policy changes, health authorities need to provide guidance to donors and receiving agencies on the best types of food to give, how to keep food safe during the donation process, and clarify donors’ protection from liability risks, primarily through provincially-designed Good Samaritan Acts.

The BC Centre for Disease Control has produced donation guidelines that have been welcomed by both business and the charitable sector. As each province has a unique policy regime governing food safety and donor protection, similar guidelines need to be created for other provincial jurisdictions.

The Council is pursuing collaboration with health authorities in Ontario and Quebec, as well as select other provinces, to create provincially specific donation guidelines.

In addition to producing a number of donation guidelines for businesses and the charitable sectors, the Council will also provide education and awareness-raising information and broker new relationships amongst businesses and communities, through \(z\) and workshops, on what to best donate, risk liability, and potential receiving agencies in local jurisdictions.

\(^\text{11}\) http://www.metrovancouver.org/media-room/media-releases/ MediaReleases/2014-10-15-Food_isnt_garbage-Food_Scraps_Belong_in_your_Green_Bin.pdf?search=“food%20isn%27t%20garbage”

\(^\text{12}\) http://www.metrovancouver.org/services/solid-waste/recycling-signage-campaigns/recycling-signage-colours/Pages/default.aspx
Summary

The National Zero Waste Council is developing a comprehensive multi-year strategy to cut food waste across Canada. The success of the strategy depends on the collaboration of many partners to refine the strategy, articulate its implementation, and to assess its progress.

The objectives of the strategy are to:

- Dramatically reduce the amount of food waste disposed in landfills, the associated GHG while reducing the financial costs of managing food waste for local governments;
- Stimulate the growth of innovative businesses that use of food scraps to generate compost, animal food and alternative energy; and
- Support national action on climate change.

The approach is to:

- Develop a collaborative plan with NGOs, businesses and governments;
- Build on momentum being generated by others working on food waste in the Canada; and
- Engage the public in supportive actions.

Partnerships are being explored with a wide variety of stakeholders, including governments at the local, regional, provincial and federal levels, as well as businesses and their associations, academic institutions, NGOs, and community organizations. The National Zero Waste Council will begin consultation on this Strategy to reduce food waste in Canada in the fall of 2016 and will contact potential partners.