

<b>Project 3: North American Initiative on Food Waste Reduction and Recovery</b>	<b>Operating Year(s): 2015–2016</b>
<b>Planned Budget for Two Years: C\$460,000</b> <b>Year 1: C\$230,000</b> <b>Year 2: C\$230,000</b>	
<b>Strategic Priority/Subtheme</b> <ul style="list-style-type: none"> <li>• Climate Change / Short-lived Climate Pollution</li> <li>• Green Growth / Sustainable Production and Consumption</li> </ul> <p>This project is positioned under the <i>Climate Change: Short-lived Climate Pollution</i> cluster, but also has linkages to the <i>Green Growth: Sustainable Production and Consumption</i> cluster.</p>	
<b>How will this project address the cross-cutting themes?</b> <p>The project will address the above cross-cutting themes by:</p> <ol style="list-style-type: none"> <li>1. Reducing methane emissions from landfills (by reducing food waste);</li> <li>2. Reducing food waste from commercial sources including food processing, wholesale, distribution and transport, grocers and restaurants, and other institutional sources (e.g., hospitals, schools and universities, nursing homes and prisons); and</li> <li>3. Raising awareness regarding best practices, policies and other approaches for reducing food waste.</li> </ol>	
<b>Project Summary (including a clear statement of project goal)</b> <p>Food waste refers to food that is or was of good quality and originally fit for human consumption but that does not get consumed because it is discarded either before or after it spoils. Canada's National Zero Waste Council indicates that discarded food generally falls into three categories: (1) surplus food that is still suitable for feeding people or animals; (2) food that is not suitable for feeding people or animals due to spoilage; and (3) food waste such as trimmings, peels, cores, bones and similar residual scraps. Food waste is a subset of organic waste, which also includes yard trimmings, wood waste, paper and paperboard products.</p> <p>According to the World Bank, up to one-third of the world's food produced for human consumption either is lost during processing or is wasted by consumers due to evolving consumption patterns.<sup>1</sup> North America and Oceania stand out from other developed regions with the most food wasted per capita.<sup>2</sup> It is estimated that approximately 13% of greenhouse gases in the United States are associated with growing, manufacturing, transporting, and disposing of food.<sup>3</sup> According to the latest figures from the US EPA (for 2012) on municipal solid</p>	

<sup>1</sup> World Bank. February 2014. Infographic: Food Loss and Waste. [www.worldbank.org/en/news/feature/2014/02/27/infographic-food-loss-waste](http://www.worldbank.org/en/news/feature/2014/02/27/infographic-food-loss-waste).

<sup>2</sup> Lipinski, B., C. Hanson, J. Lomax, L. Kitinoja, R. Waite, T. Searchinger. 2013. *Reducing Food Loss and Waste*. UNEP: World Resources Institute Working Paper. [www.wri.org/publication/reducing-food-loss-and-waste](http://www.wri.org/publication/reducing-food-loss-and-waste).

<sup>3</sup> US EPA. Sept 2009. *Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices*. [http://www.epa.gov/oswer/docs/ghg\\_land\\_and\\_materials\\_management.pdf](http://www.epa.gov/oswer/docs/ghg_land_and_materials_management.pdf)

waste generation, recycling, and disposal, food waste is the single largest waste stream sent to landfills in the US, comprising 21 percent of the municipal solid waste disposed in landfills.<sup>4</sup> In Canada, the estimated quantifiable value of food waste generated in 2014 was \$31 billion, 53 percent of which was attributed to on-farm production waste, or losses during processing, transport and distribution, at restaurants and hotels, and at retailer sources (with residential consumers accounted for the remainder of the waste).<sup>5</sup>

In Canada, Mexico, and the United States, a predominant amount of food waste is disposed of in landfills, where it is decomposed by bacteria under anaerobic conditions, contributing to the formation and release of methane gas. Methane is a short-lived climate pollutant and greenhouse gas that is over 20 times more potent than carbon dioxide and has an atmospheric lifetime of about 12 years.<sup>6</sup> Methane emissions from the waste sector in Canada, Mexico, and the US account for 20,<sup>7</sup> 6,<sup>8</sup> and 18 percent<sup>9</sup> of total national methane emissions, respectively.

Food waste represents a significant component of the waste stream entering landfills that can be reduced (e.g., through industry and business practices, raising awareness, etc.), thereby contributing to significant reductions in short-lived climate pollutants. Reduction of food waste complements ongoing country efforts under the United Nations Framework Convention on Climate Change, to which Canada, Mexico, and the United States are Parties. It also helps to preserve landfill space, and reduce the formation of leachate and odors at landfill sites. It is also recognized that the reduction of food waste contributes to sustainable development goals, including sustainable materials management and resource efficiency, with linkages to CEC priorities (i.e., green growth), other international commitments (e.g., UN 10-year framework of programmes on sustainable consumption and production patterns), and various national initiatives (e.g., US Food Waste and Recovery Challenges, initiatives of the Canadian Council of Ministers of the Environment on waste management, and Mexican general policies on sustainable consumption and production, clean production, and organic waste).

The goal of this project is to enhance North American capacity for reducing the disposal of food waste in landfills by exploring opportunities to achieve food waste reduction and recovery within relevant North American industry, commercial, and institutional sectors (e.g., food processing, wholesale distribution and transport, grocers and restaurants, hospitals, schools and universities, nursing homes and prisons). Specifically, this project will focus on “front-end” activities of the food recovery hierarchy that target food *before it becomes a waste*. Examples of front-end activities that support food waste reduction and recovery include:

- (1) source reduction – minimizing the amounts of surplus and residual food generated within the food supply chain;
- (2) feeding people – using safe, quality surplus food to feed hungry people (e.g., at food banks, shelters, senior centres, etc.); and
- (3) feeding animals – using safe, quality food scraps as animal feed (e.g., pig farms).

<sup>4</sup> US EPA. February 2014. *Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2012*. EPA-530-F-14-001. <[www.epa.gov/wastes/nonhaz/municipal/pubs/2012\\_msw\\_fs.pdf](http://www.epa.gov/wastes/nonhaz/municipal/pubs/2012_msw_fs.pdf)>.

<sup>5</sup> Gooch, M., A. Fefel. 2014. *\$27 Billion Revisited - The Cost of Canada's Annual Food Waste*. Value Chain International Inc.

<sup>6</sup> UNEP. What are Short-Lived Climate Pollutants? <[www.unep.org/ccac/Short-LivedClimatePollutants/Definitions/tabid/130285/Default.aspx](http://www.unep.org/ccac/Short-LivedClimatePollutants/Definitions/tabid/130285/Default.aspx)>.

<sup>7</sup> Government of Canada, 2014. *Canada's Sixth National Report on Climate Change* <[www.ec.gc.ca/cc/0BA54AAB-6E8E-4D48-B42C-DCBB09B27D10/6458\\_EC\\_ID1180-MainBook\\_high\\_min\\_FINAL-s.pdf](http://www.ec.gc.ca/cc/0BA54AAB-6E8E-4D48-B42C-DCBB09B27D10/6458_EC_ID1180-MainBook_high_min_FINAL-s.pdf)>.

<sup>8</sup> Semarnat. 2013. Programa Especial de Cambio Climático: 20142018. Mexico. <[www.dof.gob.mx/nota\\_detalle.php?codigo=5342492&fecha=28/04/2014](http://www.dof.gob.mx/nota_detalle.php?codigo=5342492&fecha=28/04/2014)>.

<sup>9</sup> US EPA. n.d. Overview of Greenhouse Gases. <<http://epa.gov/climatechange/ghgemissions/gases/ch4.html>>.

Tasks and subtasks under this project are outlined as follows:

- 1. Gather foundational knowledge and information to better understand the current situation of food waste reduction and recovery in North America by:**
  - 1.1 Consolidating knowledge and information regarding the amounts, types, sources, and causes of food waste in the food supply chain, and describing relevant North American and international government policies and incentives to support food waste reduction;
  - 1.2 Establishing a tele-network with experts in food waste reduction and recovery in the three countries for the duration of this project; and
  - 1.3 Tele-networking with the CEC project group responsible for the North American Initiative on Organic Waste Diversion and Processing for the duration of this project.
- 2. Encourage food waste reduction and recovery in relevant North American industry, commercial and institutional sectors (e.g., food processing, wholesale distribution and transport, grocers and restaurants, hospitals, schools and universities, nursing homes and prisons) by:**
  - 2.1 Identifying approaches to measure, track and report on food waste reduction and recovery in relevant industry, commercial and institutional sectors, based on existing approaches and methodologies; and
  - 2.2 Identifying current practices and processes to achieve food waste reduction and recovery in relevant industry, commercial and institutional sectors.
- 3. Identify opportunities to further advance food waste reduction and recovery in North America by:**
  - 3.1 Identifying gaps, challenges, recommendations and strategies to advance food waste reduction and recovery in North America; and
  - 3.2 Hosting a North American Workshop on Food Waste Reduction and Recovery to share and discuss relevant approaches and opportunities for reducing food waste, and provide a forum to critique the three draft reports and draft white paper produced in Tasks 1, 2, and 3 (see below).
- 4. Share knowledge on food waste reduction by:**
  - 4.1 Developing a clearinghouse mechanism or online information-sharing platform to communicate knowledge, approaches, tools and opportunities for food waste reduction and recovery; and
  - 4.2 Translating project outputs intended for public dissemination.

**Short-term Outcomes (at halfway point)**

- Draft report (subtask 1.1) to consolidate knowledge and information on the current status of food waste reduction and recovery efforts in the three countries (including information on the impact of food waste reduction and recovery on reducing short-lived climate pollutants)
- Network of experts involved in food waste reduction and recovery in the three countries
- Draft report (subtask 2.1) on the current status of efforts and varied methodologies to measure, track and report on food waste and recovery.

- Draft report (subtask 2.2) on best practices to support food waste reduction
- Draft white paper (subtask 3.1) to identify gaps, challenges, recommendations and strategies to advance food waste reduction and recovery in North America.

#### **Long-term Outcomes (by the end of the project)**

- North American Workshop on Food Waste Reduction and Recovery, workshop report, and summary of participant comments regarding draft reports and the draft white paper.
- Finalization of the draft reports and white paper, based in part on recommendations from the North American Workshop and other stakeholder organizations
- Clearinghouse mechanism or online information-sharing platform to communicate knowledge, practices and opportunities for food waste reduction and recovery

#### **Longer-term, Environmental Outcome (post-project)**

This project represents a first step by the CEC to undertake work focused on food waste reduction and recovery. This project will reduce the generation of food waste in relevant North American industry, commercial and institutional sectors. Given that food waste can account for 20% or more of waste disposed in landfills, its reduction will prolong the service life of existing landfills, offsetting the need (and associated costs) to site and construct new ones. Expanding food recovery efforts to further support local food banks and pantries will also help to address food insecurity in the three countries.

As a whole, the project will help Canada, Mexico, and the United States achieve international and national commitments regarding both climate change and sustainable development. With the collaboration of experts in three countries, the project will reduce duplication of effort, identify approaches to improve food waste reduction and recovery, and contribute to the development and uptake of policies and best practices in all three countries. It will also contribute important baseline information that will enable a better understanding of the types, quantities, and current management of food waste in North America, as well as options for improving food waste reduction and recovery. While the project will foster collaboration with the industrial, commercial and institutional sector and other stakeholders that have roles to play in food waste reduction and recovery, additional CEC work may be required to address a wider spectrum of opportunities in the future.

#### **Performance Measures (quantified SMART measures)**

Performance measures/indicators are identified in the table below.

#### **Tasks necessary to reach the environmental outcome:**

- 1) Gather foundational knowledge and information to better understand the current situation of food waste reduction and recovery in North America;
- 2) Encourage food waste reduction and recovery efforts in relevant North American industry, commercial and institutional sectors (e.g., food processing, wholesale, distribution and transport, grocers and restaurants, hospitals, schools and universities, nursing homes and prisons);
- 3) Identify opportunities to further advance food waste reduction and recovery efforts in North America; and
- 4) Share knowledge on food waste reduction and recovery.

<b>TASK #1) Gather foundational knowledge and information to better understand the current situation of food waste reduction and recovery in North America</b>				
<b>Subtask</b>	<b>Project outputs</b>	<b>How does the subtask/output move the project towards the environmental outcome</b>	<b>Timing and Performance Measures/Indicators</b>	<b>Budget (C\$) (activities)</b>
<p>1.1 Consolidate knowledge and information regarding the amounts, types, sources, and causes of food waste in the food supply chain and describe government policies and incentives to support food waste reduction and recovery that would be relevant to North America and internationally.</p> <p>[consultant assistance required]</p>	<p>A report to: (1) identify the amounts, types, sources, and causes of food waste in the food supply chain; (2) identify relevant policies and incentives to support food waste reduction and recovery; (3) identify key stakeholder organizations for possible participation on food waste reduction and recovery efforts; and (4) identify and quantify linkages related to the reduction of short-lived climate pollutants. Content will be based on existing, available information. (Work will target commercial sources, including food processing, wholesale distribution and transport, grocers and restaurants, and other institutional sources (e.g., hospitals, schools and universities, nursing homes and prisons.)</p> <p><b><i>The draft report will be shared at the North American Workshop on Food Waste Reduction</i></b></p>	<p>The report will contribute to developing a better understanding of the current situation of food waste reduction efforts in the three countries.</p> <p>It will provide information on the impact of food waste reduction on reducing short-lived climate pollutants.</p>	<p><b>Year 1:</b> Draft report (for use during workshop)</p> <p><b>Year 2:</b> Finalize report (after the workshop)</p> <p><b>Performance Measures/Indicators:</b></p> <ul style="list-style-type: none"> <li>- Production of food waste report</li> <li>- Number and diversity of stakeholders that participated in preliminary food waste reduction and recovery information-gathering</li> <li>- Critical reception of report by stakeholders</li> <li>- Number of times report is requested</li> </ul>	<p>Year 1: \$60,000</p> <p>Year 2: \$20,000</p>

	<b><i>referenced in subtask 3.2.</i></b>			
<p>1.2 Establish a tele-network involving experts in food waste reduction and recovery in the three countries, for the duration of this project.</p> <p>[regular conference calls]</p>	<p>A network of experts involved in food waste reduction in the three countries.</p>	<p>The network will provide a means through which industry and other experts can contribute knowledge and discuss food reduction and recovery and related challenges and opportunities.</p> <p>This network will also be used to facilitate early and ongoing engagement with interested stakeholders, including those in the industry and commercial food sectors for project outputs.</p>	<p><b>Year 1:</b> Formation of a network</p> <p><b>Year 2:</b> Continued networking</p> <p><b>Performance Measures/Indicators:</b></p> <ul style="list-style-type: none"> <li>- Conference calls are held</li> <li>- Number and timing of conference calls</li> <li>- Number and diversity of stakeholders participating during calls</li> </ul>	<p>Year 1: \$500</p> <p>Year 2: \$500</p>
<p>1.3 Tele-network with the CEC intergovernmental project group responsible for the North American Initiative on Organic Waste Diversion and Processing, for the duration of this project.</p> <p>[periodic conference calls]</p>	<p>A network with the CEC intergovernmental project group responsible for the North American Initiative on Organic Waste Diversion and Processing.</p> <p>NB: It is anticipated that there will be some overlap in the government representation for the two CEC projects.</p>	<p>The network will provide a means through which government representatives of the two project groups can discuss cross-cutting issues and avoid potential duplication of effort and resourcing through contracts or other work and activities.</p>	<p><b>Year 1:</b> Formation of a network</p> <p><b>Year 2:</b> Continued networking</p> <p><b>Performance Measures/Indicators:</b></p> <ul style="list-style-type: none"> <li>- Conference calls are held</li> <li>- Number and critical timing of conference calls</li> </ul>	<p>Year 1: \$500</p> <p>Year 2: \$500</p>

<b>TASK #2) Encourage food waste reduction and recovery in relevant North American industry, commercial and institutional sectors (e.g., food processing, wholesale, distribution and transport, grocers and restaurants, hospitals, schools and universities, nursing homes and prisons)</b>				
<b>Subtask</b>	<b>Project outputs</b>	<b>How does the subtask/output move the project towards the environmental outcome</b>	<b>Timing</b>	<b>Budget (C\$) (activities)</b>
<p>2.1 Identify approaches to measure, track and report on food waste reduction and recovery in relevant industry, commercial and institutional sectors, based on existing approaches and methodologies</p> <p>[consultant assistance required]</p> <p><b><i>This work will involve engagement with interested stakeholders, including those in industry, commercial and institutional sectors.</i></b></p>	<p>A report containing case studies to identify, discuss and compare approaches to measure, track and report on food waste reduction and recovery in relevant industry, commercial and institutional sectors, including a description of deficiencies and inconsistencies where they may exist.</p> <p>The report will also examine how food waste is defined to better understand possible variations and the influence they may have on data reporting.</p> <p>Work will focus on relevant existing approaches in North America and elsewhere (e.g., Europe). Information from case studies will be presented in a compatible manner to facilitate comparisons.</p> <p><b><i>The draft case study report will be shared at the North American Workshop on</i></b></p>	<p>Showcasing real world examples will help raise awareness and can stimulate uptake of approaches to measure, track and report on food waste where they are not yet in place. Doing so will support trilateral efforts to more accurately quantify savings from greenhouse gas reductions that can be achieved through food waste reduction and recovery.</p> <p>This work will also help to assess if guidance on measuring, tracking and reporting food waste reduction and recovery is needed, which could form the basis of possible future CEC work.</p>	<p><b>Year 1:</b> Draft report (for use during workshop)</p> <p><b>Year 2:</b> Finalize report (after the workshop)</p> <p><b>Performance Measures/Indicators:</b></p> <ul style="list-style-type: none"> <li>- Case study report is produced</li> <li>- Number and diversity of stakeholder sectors that participated in reduction and recovery information-gathering</li> <li>- Critical reception and uptake of case study report by stakeholders</li> <li>- Number of times report is requested</li> </ul>	<p>Year 1: \$60,000</p> <p>Year 2: \$20,000</p>

	<b><i>Food Waste Reduction and Recovery referenced in subtask 3.2.</i></b>			
<p>2.2 Identifying current practices and processes to achieve food waste reduction and recovery in relevant industry, commercial and institutional sectors.</p> <p>[consultant assistance required]</p> <p><b><i>This work will involve engagement with interested stakeholders, including those in industry, commercial and institutional sectors, and hunger relief organizations.</i></b></p>	<p>A report containing case studies to identify, discuss and compare practices and processes to achieve food waste reduction and recovery in relevant industry, commercial and institutional sectors, including a description of deficiencies and inconsistencies, where they may exist, and an overview of business rationale and considerations for selecting practices and processes.</p> <p>Work will focus on relevant existing practices and processes in North America and elsewhere (e.g., Europe). Case study information will be presented in a compatible manner to facilitate comparison.</p> <p><b><i>The draft case study report will be shared at the North American Workshop on Food Waste Reduction and Recovery referenced in subtask 3.2.</i></b></p>	<p>Showcasing real world examples will help raise awareness and can stimulate uptake of food waste reduction and recovery practices and processes where they are not yet in place, thereby reducing methane gas emissions from landfills.</p> <p>This work will also help assess if guidance on best practices is needed to further stimulate change, which could form the basis of future possible CEC work.</p>	<p><b>Year 1:</b> Draft report (for use during workshop)</p> <p><b>Year 2:</b> Finalize report (after the workshop)</p> <p><b>Performance Measures/Indicators:</b></p> <ul style="list-style-type: none"> <li>- Production of a report</li> <li>- Number and diversity of stakeholder sectors that participated in recovery and reduction information-gathering</li> <li>- Critical reception and uptake of the report by stakeholders</li> <li>- Number of times report is requested</li> </ul>	<p>Year 1: \$60,000</p> <p>Year 2: \$20,000</p>



<b>TASK #3) Identify opportunities to further advance food waste reduction and recovery in North America</b>				
<b>Subtask</b>	<b>Project outputs</b>	<b>How does the subtask/output move the project towards the environmental outcome</b>	<b>Timing</b>	<b>Budget (C\$) (activities)</b>
<p>3.1 Identify gaps, challenges, opportunities and strategies to enhance food waste reduction and recovery in North America.</p> <p>[consultant assistance required]</p>	<p>A white paper identifying gaps, challenges, opportunities and strategies to enhance food waste reduction and recovery in North America, including consideration of measurement and monitoring approaches.</p> <p>The paper will include relevant options applicable to both governments and industry and commercial food sectors, and other institutional sources. It will also include consideration of approaches outside North America, where relevant.</p> <p>The paper will also identify possible options to recognize organizations in industry and commercial food sectors for leadership and excellence in addressing food waste reduction and recovery in North America.</p> <p><b><i>A draft white paper will be shared at the North American Workshop on Food Waste Reduction and</i></b></p>	<p>The white paper will identify potential problems and solutions to foster enhanced food waste reduction and recovery in North America, which can be used to stimulate future work to support methane emission reductions from landfill disposal.</p>	<p><b>Year 1:</b> Draft paper (for use during workshop)</p> <p><b>Year 2:</b> Finalize paper (after the workshop)</p> <p><b>Performance Measures/Indicators:</b></p> <ul style="list-style-type: none"> <li>- A white paper is produced</li> <li>- Identification of realistic options for all targeted stakeholder groups</li> <li>- Stakeholder reactions regarding completeness and diversity of options presented</li> <li>- Number of times paper is requested</li> </ul>	<p>Year 1: \$20,000</p> <p>Year 2: \$30,000</p>

	<b><i>Recovery referenced in subtask 3.2.</i></b>			
<p>3.2 Host a North American Workshop on Food Waste Reduction and Recovery to share and discuss relevant approaches and opportunities for reducing food waste, and provide a forum to critique the three draft reports and draft white paper.</p> <p>[consultant assistance required]</p> <p>Consultant will contribute to workshop design, communication and outreach; workshop facilitation; and a report on deliberations and recommendations from the workshop.</p>	<p>Face-to-face multi-stakeholder discussions regarding the draft study, guidance and the papers developed under this project.</p> <p>Workshop report that summarizes key issues, deliberations and recommendations for each agenda item from the workshop.</p> <p>A separate document will summarize comments regarding the three draft reports and the white paper referenced in subtasks 1.1, 2.1, 2.2 and 3.1.</p>	<p>The workshop will foster collaboration among government, industry, academia and other experts that have roles to play in food waste reduction and recovery, and provide a forum to share and discuss best practices, policies, tools and other approaches. It will also provide an opportunity to raise awareness and stimulate interest in and encourage further engagement on food waste reduction and recovery, which can contribute to methane emission reductions from landfill disposal.</p>	<p><b>Year 1:</b> Initial workshop design</p> <p><b>Year 2:</b> Hold one workshop</p> <p><b>Performance Measures/Indicators:</b></p> <ul style="list-style-type: none"> <li>- An experts workshop is held</li> <li>- Number of workshop participants and diversity of stakeholder organizations</li> <li>- Quality of participant feedback regarding draft reports and papers</li> <li>- Results of workshop evaluation questionnaire</li> </ul>	<p>Year 1: \$19,000</p> <p>Year 2: \$79,000</p> <p><b>Notes:</b></p> <p>4-day event is envisaged</p> <p>Budget includes costs for:</p> <ul style="list-style-type: none"> <li>a) consulting</li> <li>b) simultaneous translation services</li> <li>c) travel for select nongovernmental and nonindustrial stakeholders (e.g., academia, hunger relief organizations, ENGOs)</li> </ul>
<b>TASK #4) Share knowledge on food waste reduction and recovery</b>				
<b>Subtask</b>	<b>Project outputs</b>	<b>How does the subtask/output move the project towards the environmental outcome</b>	<b>Timing</b>	<b>Budget (C\$) (activities)</b>
4.1 Develop a clearinghouse mechanism or online information sharing platform to communicate knowledge, approaches and opportunities for food waste	Clearinghouse mechanism or online information sharing platform on food waste reduction and recovery, to be hosted on the CEC website (or a volunteer stakeholder website), as	Clearinghouse will provide a tool for governments, industry and others to share knowledge and information to help others advance food	<p><b>Year 2:</b> Complete the development of information clearinghouse</p> <p><b>Performance</b></p>	<p>Year 1: \$0</p> <p>Year 2: \$20,000</p>

reduction and recovery. [consultant assistance required]	determined by the steering committee	waste reduction and recovery (and support methane emission reductions from landfill disposal)	<b>Measures/Indicators:</b> - An information clearinghouse is delivered - Number of visitors to the site - Number of document downloads	
4.2 Translate project outputs intended for public dissemination	Translation of reports, papers, presentations and other project outputs (e.g., tasks 1–3)	Translation of project outputs intended for public dissemination will support knowledge building and raise awareness in the three countries	<b>Year 1:</b> Translate draft papers (for use at workshop)  <b>Year 2:</b> Translate final papers  <b>Performance Measures/Indicators:</b> - Translated documents - Project outputs are translated	Year 1: \$10,000  Year 2: \$40,000

**Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)**

*The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply for activities to be funded through the NAPECA grant program.*

- **How does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council?**

This project contributes to the CEC Council's *Climate Change* strategic priority for 2015–2020, under the *Short-lived Climate Pollution* subtheme, by reducing methane emissions from landfills through food waste reduction and recovery. The project is also linked to the *Green Growth—Sustainable Production and Consumption* cluster of projects, since project outcomes will also foster more sustainable production and consumption patterns in the three countries.

- **Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America? (For example, what would Council members announce to the press at the successful completion of this project?)**

Food waste is both generated and predominantly landfilled in all three countries. This waste can account for 20 percent or more, by volume, of municipal solid waste disposed in landfills and is known to emit methane gas from the anaerobic environment of a landfill. As such, significant opportunities exist to curb short-lived climate pollutants (i.e., methane emissions) through the reduction and recovery of food waste across North America.

This project will provide important information to better understand the current situation of food waste generation in North America, encourage food waste reduction and recovery, and identify options to advance foster food waste reduction and recovery in North America, providing environmental, economic and social benefits.

- **What specific, clear and tangible results will be achieved and how will progress toward each result be measured over time? Identify performance measures to be used to indicate success at reaching all outcomes and/or performance.**

Tangible results (i.e., outcomes) and performance measures are identified in the task table above.

- **Explain why the CEC is the most effective vehicle for the Parties to use in undertaking the project, considering these points:**

- **The value-added of doing it under the CEC cooperative work program**

The CEC has not yet undertaken work focused on food waste reduction and recovery. This project represents an opportunity to target this area to support mutual interests related to waste diversion from landfills, reducing climate pollutants, and addressing sustainable production and consumption patterns. A trilateral partnership will facilitate a coordinated and consistent approach that avoids duplication of effort and resources.

- **Any other public, private or social organizations that work on such activities**

A project subtask identifies stakeholder organizations and the roles they play in food waste reduction and recovery (also see last question below for a preliminary list of potential stakeholders).

- **Opportunities to cooperate and/or leverage resources with such organizations**

Efforts will be made to identify and encourage key stakeholder organizations that have a role to play in food waste reduction and recovery to participate in and contribute to this project to the extent that they are able.

- **Does the project propose a clear timeline for implementation of the activities, including a target end-date for CEC involvement? Where applicable, describe how the work will continue after CEC involvement ends.**

Yes. The project proposes work that will be completed within a two-year timeframe.

Project outcomes are anticipated to complement current and future initiatives such as US Food Waste and Recovery Challenges, initiatives of the Canadian Council of Ministers of the Environment on waste, and Mexican activities supporting sustainable consumption and production. Project outcomes can also feed into North American country contributions under the United Nations Framework Convention on Climate Change and the UN 10-year framework of programmes on sustainable consumption and production patterns, thereby raising the international profile of the CEC's project outcomes. It is also anticipated that organizations such as the Food Waste Reduction Alliance and the Canadian National Zero Waste Council will help to promote the project outcomes upon finalization in order to further raise awareness and foster uptake of good practices.

- **Where applicable, identify with reasonable specificity:**
  - **Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication**

Food waste reduction and recovery is a new area of trilateral cooperation and work for the CEC. This work supports two CEC Priorities under the 2015–2017 Strategic Plan, namely Climate Change (under the Short-lived Climate Pollutants subtheme) and Green Growth (under the Sustainable Production and Consumption subtheme). As noted in this proposal, direct efforts will be made to coordinate this work with that under the CEC organic waste diversion and processing project.

- **The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project**

The target audience for this work focuses on relevant North American industry, commercial and institutional sectors (e.g., food processing, wholesale, distribution and transport, grocers and restaurants, hospitals, schools and universities, nursing homes and prisons). Governments in the three countries are also anticipated to share and foster use of project outcomes through ongoing and/or future work programs, challenges, and other initiatives related to food waste reduction and recovery. Given the global and national importance of climate change and sustainable development issues, it is anticipated that the target audience will be receptive to project outcomes.

- **The beneficiaries of capacity building activities that the project may include**

It is anticipated that industry, commercial and institutional sectors, will benefit from direct cost savings from food waste reduction and recovery efforts. Communities will benefit from cleaner air and longer lasting landfills. All will benefit from enhanced industry and community engagement to reduce food waste and prevent them from entering landfills, and bolstering the availability of food at local food pantries through expanded access to food donations from industry, commercial and institutional food sectors.

- **The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome**

Some of the foundation work under this project will identify potential stakeholder organizations that can contribute to successful project outcomes. A preliminary list of potential stakeholder organizations is identified below:

**Mexico:**

- Semarnat

**United States:**

- US EPA
- US Department of Agriculture
- United States National League of Cities
- Food Waste Reduction Alliance
- Grocery Manufacturers Association
- National Restaurant Association
- National Grocers Association
- Feeding America

**Canada:**

- Environment Canada
- Canadian Council of Ministers of Environment
- Federation of Canadian Municipalities
- National Zero Waste Council
- Canadian Federation of Independent Grocers
- Canadian Council of Grocery Distributors
- Canadian Restaurant and Food Services Association
- Food Banks Canada

**Others:**

- Solid Waste Association of North America
- Climate and Clean Air Coalition
- Food Marketing Institute
- Food packers/processors and retailers