PROJECT PROPOSAL

1. **Project name:** Tools for Expanding Food-Loss and Waste Prevention, Recovery and Recycling in North America

2. **Two-year budget:** C$850,000 (Tasks: 3.i: C$500K, 3.ii: C$150K; 3.iii C$150K; +C$50K online platform support)

3. **Short statement of the need identified (including current status), the project objective and outcomes (achievable by June 2019) to address it:**

   Building upon the outcomes of the first stage of work under CEC projects related to food waste reduction and recovery, and organic waste processing and diversion (i.e., during CEC Operational Plan 2015–2016)\(^1\), this proposal seeks to achieve the following objectives:

   (i) Improve measurement of food loss and waste (FLW)\(^2\) across the food supply chain, including approaches to correlate food loss and waste prevention, recovery and recycling with associated environmental and socio-economic impacts.

   (ii) Communicate practical measures and activities that facilities, organizations, and governments can take to prevent, recover and recycle FLW across specific segments of the food supply chain.

   (iii) Engage youth to raise awareness of food loss and of waste-prevention, recovery and recycling opportunities and approaches at schools and in homes.

4. **Strategic Priorities from 2015–2020 Strategic Plan:** Green Growth and Climate Change Mitigation and Adaptation (also recognizing links to Sustainable Communities and Ecosystems), and **Priority Area:** Reduce and recover food waste.

5. **Explain how the project can achieve more impact by working trinationally, and why the CEC is the most effective vehicle to undertake this work:**

   Previous work related to food waste under CEC Operational Plan 2015–2016 has already demonstrated the value of trinational cooperation in this area, through elevating domestic visibility of the work, and enhancing the ability to enlist key North American and other country expertise, which is of added value to CEC Parties. Such cooperation helps in leveraging resources, expands/broadens experience, creates broader potential market opportunities for technology solutions, and expands the audience for the CEC outcomes developed.

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\(^1\) Previous CEC projects included: (1) North American Initiative on Food Waste Reduction and Recovery; and (2) North American Initiative on Organic Waste Diversion and Processing. These projects separately addressed the upper tiers (wasted food prevention and recovery for human consumption or animal feed), and lower tiers (food recycling option—e.g., anaerobic digestion and composting) of the Food Recovery Hierarchy (<www.epa.gov/sustainable-management-food/food-recovery-hierarchy>). Note that this new project will collectively tackle food waste prevention, recovery and recycling.

\(^2\) Food loss: Any edible and inedible parts of food that are removed from the food supply chain to be recovered, recycled or disposed of. Food waste: Losses occurring at retail, food-service and consumer stages are termed food waste in order to factor in behaviour at those stages.
6. **Describe how the project may capitalize on, or advance, the relationship between ecosystems, job creation, gender impacts, and income generation:**

This work area is a natural fit for promoting and capitalizing on the positive interplay and mutually reinforcing economic, environmental and social benefits associated with food waste prevention (e.g., mitigating environmental impacts related to inefficient use of economic, human and natural resources along the food chain), recovery programs (e.g., donation programs addressing food security needs in disadvantaged communities), and recycling programs (e.g., mitigating GHG emissions by reducing organic waste that ends up in landfills). A growing body of analysis strongly demonstrates this multi-pronged stream of inter-related benefits. This work promotes efficiencies and reduced waste throughout the food production chain, encouraging more-sustainable food systems that include social, economic and environmental benefits, including opportunities for small and medium sized enterprises.

7. **List the objectives and activities to be conducted to achieve measurable results:**

<table>
<thead>
<tr>
<th>Objectives (must be SMART)</th>
<th>Main activities to achieve objectives (by 30 June 2019)</th>
<th>Measurable results</th>
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<tbody>
<tr>
<td>3.i: Improve measurement of food loss and waste (FLW) across the food supply chain, and include approaches to correlate food loss and waste prevention, recovery and recycling with associated environmental and socio-economic impacts.</td>
<td>Establish and convene a series of expert-group meetings via conference calls and in-person focus groups (comprised of government, industry, business and possibly key international organizations), to: (1) identify, describe and compare existing methods/approaches that can be used in practice to measure FLW to meet various objectives and at differing scales (e.g., national, municipal or facility level), and correlate data to associated environmental and socio-economic impacts (e.g., GHG reductions, financial savings, new jobs, meals recovered, energy and waste efficiencies, landfill space conserved); (2) identify and describe issues and challenges with respect to implementing these methods in practice, accompanied by practical solutions for each; and (3) develop practical tools and propose guidance and key performance indicators to foster and facilitate measurement of FLW and correlation of data to associated environmental and socio-economic impacts, at the facility, household/community, sub-national and national levels within each country.</td>
<td>A multi-stakeholder expert group on FLW measurement is established, a series of expert-group meetings are held, and meeting decisions and outcomes are documented. Methods/approaches that can be used in practice to measure FLW and correlate data to associated environmental and socio-economic impacts are documented. Issues and challenges with respect to implementing FLW measurement methods/approaches in practice, accompanied by practical solutions for each, are documented. Practical tools, guidance and key performance indicators are developed to foster and facilitate measurement of FLW and correlation of data to associated environmental and socio-economic impacts. Project outcomes are posted on the CEC website and/or alternative knowledge platforms able to showcase North American</td>
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3 SMART: Specific, measurable, achievable, realistic and time-bound.
| 3.i: Communicate practical measures and activities that facilities across specific segments of the food supply chain can take to prevent, recover and recycle FLW. | Develop practical communication materials to explain in a simplified manner how to support FLW prevention, recovery and recycling at the facility level across specific segments of the food supply chain. |
| These tools/materials are intended to raise awareness of and complement (not duplicate) existing resource guides related to FLW prevention, recovery and recycling. | Practical tools/materials that communicate in a simplified manner how to support FLW prevention, recovery and recycling at the facility level across specific segments of the food supply chain are developed. |
| 3.ii: Engage youth to raise awareness of food waste prevention, recovery and recycling opportunities and approaches at schools and in homes. | Support the development of educational resources for elementary and high school students on food waste reduction. Materials would be developed to focus on to specific age groups and support agricultural, environmental, or hospitality study programs and bolster support for FLW prevention, recovery and recycling at school, work and home. |
| Related outcomes will be developed with guidance from educators and/or school boards. | Launch of educational resources for elementary and high school students that teach youth about the broad environmental and social effect of food waste, and that provide strategies that can be implemented in schools, homes, and in the workplace to reduce food waste. |

### 8. Describe how the project complements or avoids duplication with other national or international work:
Measurement expert group enlists major national and international experts to define synergies and avoid duplication; guidance resources to be developed collaboratively with targeted sectors; and youth outreach emphasized, engaging existing networks and leaders.

### 9. Describe opportunities for inclusion of traditional ecological knowledge (TEK), if applicable, and how these opportunities are incorporated into the project:
Engage TEK roster of experts to explore approaches related to food waste prevention by strengthening of small local and indigenous producers that conserve traditional agroecosystems to produce food, which would also affect recovery and recycling strategies. Depending on the outcome of these discussions, consider profiling traditional food waste reduction and food recovery and recycling strategies in 3.ii. above.
10. Describe opportunities for youth engagement, if applicable, and how these opportunities are incorporated into the project:
   Task 3.iii is specifically targeted to youth engagement (see description in 3iii and in table above.)

11. List significant involvement of other levels of government, Indigenous groups, local communities, experts, private sector, civil society, and others, as applicable:
   Engagement with experts from many different stakeholder organizations (e.g., governments, community experts, private sector, civil society and academic institutions) is foreseen, to achieve the objectives and outcomes identified under this project.

12. Identify relevant committee members and their federal agencies in each country committed to developing this project, and implementing it, if approved:

   **Canada:** Michael VanderPol (ECCC, Project Lead), others tbd
   **Mexico:** Edda Fernández (Semarnat, Project Lead), Claudia Sánchez, others tbd
   **United States:** Ted MacDonald (USEPA, Project Lead); Claudia Fabiano; Swarupa Ganguli; Brianna Besch; Krystal Krejcik; others tbd