

Project 6: Reducing Emissions from Goods Movement via Maritime Transportation in North America – Phase II		Operating Year(s): 2015–2016
Planned Budget for Two Years: C\$250,000 Year 1: C\$115,000 Year 2: C\$135,000		
<b>Strategic Priority/Subtheme</b> <ul style="list-style-type: none"><li>• Green Growth / Transportation</li><li>• Climate Change Mitigation and Adaptation / Short-lived Climate Pollutants</li></ul>		
<b>How will this project address the cross-cutting themes?</b> <p>The project assists vulnerable groups by reducing emissions of harmful air pollutants from ships, which can travel far from their source and impact communities both on coasts and also far inland.</p> <p>The project helps align environmental regulatory standards by promoting common policies to address air pollution from ships in North America.</p>		
<b>Project Summary (including a clear statement of project goal)</b> <p>Shipping traffic is predicted to grow significantly in coming decades due to the increase in global trade of goods. Without policies to address air emissions from ships, they can become a significant source of pollution to communities relative to land-side sources and can degrade air quality and public health. This project seeks to promote consistent North American policies to address shipping emissions. Mexico has recently announced its intention to ratify MARPOL Annex VI, the Ship Air Pollution Annex, and it has the goal of putting an ECA in place by 2017. Building on Mexico's efforts and outcomes from 2013–2014 CEC project work (Phase I) to show the air quality, public health, environmental, and ecosystem benefits of reducing maritime shipping emissions, this project (Phase II) seeks to increase stakeholder awareness of the outcomes of Phase I and to promote coordinated North American action to address air pollution from ships. Activities conducted by this project will facilitate the exchange of best practices and lessons learned on policy and technical approaches. One policy that has been very effective in the US and Canada is the establishment of an Emission Control Area (ECA). Therefore, the primary goal of this project is to facilitate the establishment and implementation of an Emission Control Area in Mexico, adjacent to the existing US-Canada ECA and thus establishing a “truly North American ECA.” This will be accomplished by providing additional technical support and information to develop a strategy for establishing the policies and regulations needed to implement an ECA, showcasing best practices for reducing ship emissions, including the use of alternative fuels such as natural gas, and documenting the emissions reductions achieved. Phase II will facilitate stakeholder input and dialogue on the draft ECA proposal developed in Phase I, so that it can be submitted to the International Maritime Organization (IMO), and will provide the opportunity for input on a Mexican ECA implementation strategy.</p>		
<b>Short-term Outcomes (at halfway point)</b> <p>Stakeholder understanding of the needs and benefits of reducing ship emissions and the establishment of a Mexican ECA</p>		
<b>Long-term Outcomes (by the end of the project)</b> <p>A common understanding and support from relevant North American stakeholders regarding additional actions to reduce air pollution from ships, such as through a Mexican ECA.</p> <p>Mexico submits an ECA designation proposal to the IMO.</p>		

Mexico develops an ECA implementation strategy.  
 Relevant North American stakeholders understand the available best practices and technologies to reduce ship emissions.

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

Initial policies and regulations to facilitate the implementation of an ECA in Mexico are established.  
 Mexico establishes and implements an ECA, essentially creating a “truly North American” ECA with beneficial impacts for the North American region.  
 Significant reductions of air pollutants from ships (80% reduction of NO<sub>x</sub>, over 90% reduction in SO<sub>x</sub>, and over 80% reduction in PM per ship) achieved through a Mexican ECA (these represent emissions reductions that can be achieved through ECA standards).

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

#### **Technical Analyses**

Specific – 1. Finalize IMO ECA proposal to include stakeholder comments and submit to IMO;

Measurable – 1. Final IMO ECA proposal

Attainable/Achievable/Acceptable/Assignable – can it be agreed to by the Parties and who will do the work: yes, Mexico/CEC

Relevant/Realistic – can this be achieved, relevant to the NA work; yes, yes.

Time-specific/time-limited – when will the activities be conducted, completed: second year

#### **Policy and Regulatory Development for Mexican ECA Implementation**

Specific – 1. Policy and regulatory strategy developed; 2. Work group established that holds regular meetings; and 3. Development of policies/regulations to implement an ECA

Measurable – 1. Analysis of existing policies and regulations conducted; 2. Policy and regulatory strategy developed; 3. Work group established; and 4. Number of policies/regulations developed

Attainable/Achievable/Acceptable/Assignable – can it be agreed to by the Parties and who will do the work: yes, Canada and the US can share their existing experience; Mexico has demonstrated a political commitment to implementing an ECA.

Relevant/Realistic – can this be achieved, relevant to the NA work; yes, relevant to the NA work

Time-specific/time-limited – when will the activities be conducted, completed: second year.

**Stakeholder Engagement and Awareness Raising**

Specific – 1. Stakeholders are supportive of a Mexican ECA.

Measurable – 1. Expressions of stakeholder support for the Mexican ECA received (e.g., letters of support, verbal statements, presentations, supportive awareness campaigns); 2. Outreach materials developed (e.g., web site, brochure, video); and 3. Workshops conducted.

Attainable/Achievable/Acceptable/Assignable – can it be agreed to by the Parties and who will do the work: yes, Mexico/CEC

Relevant/Realistic – can this be achieved, relevant to the NA work; yes, yes.

Time-specific/time-limited – when will the activities be conducted, completed: second year

**Best Practices and Technology Information Exchange**

Specific – 1. Facilitate information exchange; 2. Capture information collected on a web page or in a presentation.

Measurable – 1. Documented dialogue among stakeholders at workshops (e.g., agenda items addressing this topic); 2.

Web page or presentation prepared

Attainable/Achievable/Acceptable/Assignable – can it be agreed to by the Parties and who will do the work: yes, Mexico/CEC

Relevant/Realistic – can this be achieved, relevant to the NA work; yes, yes.

Time-specific/time-limited – when will the activities be conducted, completed: second year

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

- 1) Technical Support to finalize the IMO ECA Proposal
- 2) Stakeholder Engagement and Awareness Raising
- 3) Policy and Regulatory Development for ECA implementation
- 4) Best Practices and Technology information exchange

**Task #1) Technical Support to finalize the IMO ECA Proposal**

Subtask	Project outputs	How does the subtask/output move the project towards the environmental outcome	Timing	Budget (C\$) (activities)
1.1 Conduct additional analyses to include stakeholder input to the IMO ECA	<ul style="list-style-type: none"> <li>Working paper detailing analysis results</li> </ul>	To develop a robust IMO ECA proposal that is supported by key stakeholders, it is important to ensure that Mexico can be responsive to comments from stakeholders. This activity provides the technical support to conduct additional technical analyses to strengthen the	March 2016– March 2017	Year 1: \$10,000 Year 2: \$10,000

proposal		<p>proposal.</p> <p>Some examples of possible additional analyses include:</p> <ul style="list-style-type: none"> <li>- Study addressing technical and market barriers (fuel supply)</li> <li>- Research into the cost-effectiveness of landside versus maritime emissions controls.</li> <li>- Analysis of operational cost impacts on select key maritime shipping lines.</li> </ul>		
1.2 Finalize the IMO ECA proposal	<ul style="list-style-type: none"> <li>• Results of additional analyses needed to complete proposal, including modeling</li> <li>• Incorporation of technical analysis results into IMO ECA proposal</li> <li>• Final IMO ECA proposal</li> </ul>	<p>Additional analyses may be needed after Phase I to address IMO ECA proposal requirements.</p> <p>A final IMO ECA will result in substantial health and environmental benefits in Mexico and North America.</p>	March 2016–June 2017	<p>Year 1: \$10,000</p> <p>Year 2: \$10,000</p>
<b>Task #2) Stakeholder Engagement and Awareness Raising</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>
2.1 Develop and disseminate outreach information	<ul style="list-style-type: none"> <li>• Public outreach materials based on technical information produced for the IMO ECA proposal (e.g., fact sheet, web site, brochure or video)</li> <li>• Dissemination of public outreach material (e.g., at meetings, on the</li> </ul>	The audience for this information would include the public, NGOs, port communities, port authorities, shipping industry stakeholders, and government policy makers.	March 2016–March 2017	<p>Year 1: \$5,000</p> <p>Year 2: \$5,000</p>

	web)			
2.2 Facilitate stakeholder dialogue and input	<ul style="list-style-type: none"> <li>• Training of key agencies, e.g., at least one study tour of key officials to the US or Canada to learn from these countries' experience in implementing policies and regulations to address ship emissions</li> <li>• Workshop of key North American stakeholders, including government agencies, industry and NGOs</li> <li>• Presentation of draft IMO ECA proposal</li> <li>• Workshop report, including comments made on the proposal</li> </ul>	<p>It is beneficial if the proposal to the IMO is supported by relevant stakeholders to ensure that both technical and policy concerns are addressed.</p> <p>This subtask supports a process to ensure that stakeholders are able to provide input and understand the benefits of a Mexican ECA.</p> <p>This subtask is distinct from the stakeholder outreach in Task 3 because it is more focused on awareness-raising with a broad group of stakeholders about the benefits of a Mexican ECA. Task 3 engages stakeholders for input into the ECA implementation strategy.</p>	March 2016– March 2017	Year 1: \$40,000 Year 2: \$10,000
<b>Task #3) Policy and Awareness Raising</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>
3.1 Develop an ECA implementation strategy	<ul style="list-style-type: none"> <li>• Analysis of existing policies and regulations</li> <li>• Development of draft strategy</li> <li>• Final strategy, including timeline and lead contacts for each</li> </ul>	Mexico would benefit from a strategy for implementing a policy and regulatory framework for MARPOL Annex VI and an ECA in order to effectively reduce ship emissions and their impacts on public health and the environment.	March 2016– June 2017	Year 1: \$25,000 Year 2: \$35,000

	involved agency/ stakeholder			
3.2 Facilitate stakeholder dialogue	<ul style="list-style-type: none"> <li>Workshop of key North American stakeholders, including government agencies, industry and NGOs</li> <li>Presentation of draft IMO ECA proposal</li> <li>Workshop report, including comments made on the proposal</li> </ul>	<p>To develop a robust strategy, this subtask facilitates the engagement of key stakeholders for input into the ECA implementation strategy.</p> <p>The workshop will facilitate the exchange of lessons learned from implementing the North American ECA in order to inform Mexico's implementation strategy.</p>	March 2016– March 2017	Year 1: \$25,000 Year 2: \$30,000
3.3 Strategy implementation	<ul style="list-style-type: none"> <li>Identification of agency leads and task team</li> <li>Information for the development of draft policies or regulations</li> </ul>	This subtask initiates Mexico's ECA implementation strategy through the development of a team and a draft policy or regulation.		Year 2: \$25,000
<b>Task #4) Best Practices and Technology Information Exchange</b>				
Subtask	Project outputs	How does the subtask/output move the project towards the environmental outcome	Timing	Budget (C\$) (activities)
4.1 Technical information exchange	<ul style="list-style-type: none"> <li>Sharing of information on best practices and technologies for conventional pollutant emission control in an ECA for the shipping sector (e.g. lower sulfur fuels, use of LNG technologies)</li> <li>Presentation or web page capturing</li> </ul>	<p>Sharing information on best practices and technologies to reduce ship emissions helps stakeholders to better understand the impact of ship emission-reduction efforts, efficiency gains, and linkages to climate impacts. This dialogue will also seek to identify opportunities for cleaner fuels afforded by related energy policies in North America, such as Mexico's energy reform.</p> <p>As maritime shipping is a global industry, information from stakeholders outside North America may also be included, as appropriate,</p>	August 2016– March 2017	Year 2: \$10,000

	information collected	in order to learn from their experiences in addressing maritime emissions.  The audience for this information would include NGOs, port communities, port authorities, shipping industry stakeholders, and government policy makers.		
			<b>Totals</b>	<b>Year 1: \$115,000 Year 2: \$135,000</b>

**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 supports several strategic goals and cross-cutting themes as outlined in the Draft Definitions of 2015-20 Cross-Cutting Themes of 16 Oct. 2014. The project will address the transportation focus under the green growth strategic goal by focusing efforts on cleaner maritime transportation. Transportation projects should “aim to improve human and environmental health by limiting emissions from (multimodal) mobile sources, which deplete fossil fuels and contribute to air pollution and climate change. The transportation sector is the largest consumer of fossil fuels in North America.” The project also supports the strategic goal on climate change, which includes a focus on short-lived climate forcers in various sectors including “transport, in order to minimize impact on human health and ecosystems.”

The project also addresses various cross-cutting themes. It will assist vulnerable groups and indigenous populations by reducing emissions of harmful air pollutants from ships, which can travel far from their source and impact communities both on coasts but also far inland. The project also helps to align environmental regulatory standards by promoting common policies to address air pollution from ships in North America.

- **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?)**

By creating a Mexican ECA, which would in effect result in a “true North American ECA,” the North American region would set a global precedent for clean maritime shipping in its waters, thereby protecting the lives of tens of thousands of citizens and preventing

ecosystem degradation. Ship emissions travel far from their source and can travel regionally to affect air quality and ecosystems throughout North America, so all citizens of North America would benefit from a Mexican ECA. The maritime shipping and port industries would also benefit from a level playing field regionally.

- **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.**
  - IMO ECA proposal submitted to the IMO: Progress toward this result will be measured by tracking the finalization of the proposal; this will include addressing any stakeholder comments and conducting additional analyses required to formulate a final IMO ECA Proposal.
  - Mexico develops a strategy to implement an ECA: This will be measured by tracking the strategy as it is being developed, by work groups established to develop and carry out the strategy, and by the number of policies/regulations that are developed as a result of the strategy.
  - Stakeholders are supportive of a Mexican ECA: Progress toward this result will be measured by tracking expressions of stakeholder support for the Mexican ECA (e.g., letters of support, verbal statements, presentations, supportive awareness campaigns), development of outreach materials (e.g., web site, brochure, video), and workshops.
  - Sharing of best practices and technology information: Progress toward this result will be measured by documenting dialogue among stakeholders at workshops (e.g., agenda items addressing this topic) and developing information sources (e.g., web page or presentation).
- **Explain why the CEC is the most effective vehicle for the Parties to use in undertaking this project, considering these points:**
  - **The value-added of doing it under the CEC cooperative program**
  - **Any other public, private or social organizations that work on such activities**
  - **Opportunities to cooperate and/or leverage resources with such organizations**

Value added: All three Parties working to create a truly North American ECA; information exchange and lessons learned that are unique to North America (other ECA is in Europe, where experience is different); a truly NA ECA would help establish a coordinated approach to addressing shipping emissions and level the playing field for maritime shipping and port-based industries and other related industries.

There are no other organizations currently working directly to help countries establish ECAs. The UNEP ports program is in its infancy and is focused on port sustainability broadly, not ECAs. The International Council on Clean Transportation (ICCT) has started to compile best practices for reducing black carbon from ships; the Mexican ECA work would build on the ICCT effort to the extent possible.



This project will take every opportunity to cooperate with other organizations and leverage ongoing work. For example, UNEP has new data from Indonesia confirming that ships are the biggest source of pollution in a port in Indonesia. This and other relevant information and data will be shared with Mexico.

- **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.**

The project timeline is two years, starting in the summer of 2015 and ending in the summer of 2017, though work is not expected to begin before December 2015 due to the time required for procuring consulting services. CEC engagement is expected in the development of the request for proposals (by winter 2015) and will run through the end of the project.

Before 2017, it is hoped that a Mexican ECA will be approved by the International Maritime Organization (IMO) and enter into force, thereby adding Mexico to the US and Canada's existing North American ECA and creating a "truly North American" ECA. Mexico will then be involved in implementation and enforcement of the ECA, ideally working in concert with the US and Canada, which are currently implementing and enforcing the North American ECA.

- **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**

This project builds on the maritime shipping project of Operational Plan 2013-2014, which was Phase I and focused on establishing the technical analyses needed for Mexico to submit a proposal to the IMO to establish a Mexican ECA. This project is Phase II and will build on the work of Phase I by ensuring that Mexico's proposal to the IMO is supported by stakeholders and is as robust as possible, making it more likely to be approved by the IMO. The project will also ensure that Mexico has a framework for implementing an ECA.

This project also links with the proposed Operational Plan 2015-2016 project on ECA enforcement in that it would establish the ECA that would need to be enforced. It would also begin to put policies in place that would enable enforcement; there should thus be close coordination with the enforcement proposal so as to prevent duplication.

This project also links with other projects related to trade and goods movement, thereby helping to improve the overall environmentally sound movement of goods in North America.

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

There are several target audiences, depending on the activity. Political decision makers, the public, industry, and non-governmental stakeholders will be targeted for communicating the public and environmental benefits of a Mexican ECA. They are likely to be very receptive to the significant public and environmental health benefits possible through an ECA. Industry may

be resistant, depending on the sector, and the project will allow for stakeholder dialogue and consultation to help address any concerns.

Public policy makers will be targeted for the development of policies and regulations to implement an ECA. The project will help provide governmental capacity to develop these regulations.

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

Government agencies in Mexico, the maritime industry, non-governmental organizations

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

Relevant stakeholders include communities, NGOs, industry, and academia. They will be involved through stakeholder outreach workshops, where they will be invited to provide input and comments to Mexico's ECA implementation strategy as well as the draft Mexico ECA proposal and other relevant outputs of the project. Particularly vulnerable populations will benefit from a Mexican ECA, due to the reduction of harmful ship pollutants.