

<b>Project 13: Monarch Butterfly Flyway: Communication, Participatory Conservation, and Education Programs throughout the Migratory Route</b>	<b>Operating Year(s): 2015–2016</b>
<b>Planned Budget for Two Years: C\$300,000</b> <b>Year 1: C\$135,000</b> <b>Year 2: C\$165,000</b>	
<p><b>Strategic Priority / Subtheme</b></p> <ul style="list-style-type: none"> <li>• Climate Change</li> <li>• Green Growth</li> <li>• Sustainable Communities and Ecosystems / Priority Species and Ecosystems; and Sustainable Communities / Urban Initiatives</li> </ul> <p>The Monarch, symbol of the Commission for Environmental Cooperation, is renowned worldwide for its spectacular and unique migration across North America. However, habitat loss and degradation pose serious threats to migratory populations throughout their annual cycle (CEC 2008). In December 2013, the number of Monarch butterflies recorded in the wintering habitats in Mexico was the lowest ever documented since 1993. In response to this precipitous decline, the North American leaders agreed to establish, on 19 February 2014, a Trilateral High Level Working Group for the Conservation of the Monarch Butterfly Migratory Phenomenon. In accordance with the 2008 North American Monarch Conservation Plan developed under the auspices of the CEC, key objectives for the Working Group include promoting social participation, outreach, and education in monarch conservation in the three countries.</p> <p>Although the Monarch butterfly is the most well-known butterfly in North America, the complexity of its life cycle and landscape-scale habitat requirements and threats make conservation of the migratory phenomenon challenging. Therefore, Monarch conservation requires extended outreach and communication efforts. In particular, target audiences such as federal, state, provincial, and local authorities, industries, nongovernmental organizations, indigenous communities, as well as civil society in general, need to be better informed and sensitized to the large array of efforts that can be undertaken all across the Monarch's annual cycle to preserve the migratory phenomenon.</p> <p>This project addresses the Sustainable Communities and Ecosystems strategic priority and all three subthemes of the priority (Priority Species and Ecosystems, Landscapes and Seascapes, Sustainable Communities and Urban Initiatives), as the Monarch is a priority species which travels across a large number of landscapes and depends on the preservation of fragile habitats that are also important resources for humans, who rely on them for their subsistence—crop fields, forest patches or wintering habitats.</p>	
<p><b>How will this project address the cross-cutting themes?</b></p> <ul style="list-style-type: none"> <li>• <i>Learning from and assisting vulnerable groups and indigenous communities</i></li> </ul> <p>Indigenous communities will play a crucial role in this project as the traditional ecological knowledge and customs related to the Monarch flyway will be gathered and synthesized. By emphasizing the importance of their natural and cultural heritage, the project seeks to increase indigenous communities' involvement in Monarch conservation efforts, as well as to raise awareness of the importance of preserving their ancestral traditions and increase interest in their Monarch-related products/handicrafts.</p>	

- *Enhancing information-sharing, transparency, capacity building and communication*

The citizen-based and local communities' initiatives and education components of this project will encourage information-sharing and trilateral communication, as well as capacity building in educational programs.

### **Project Summary (including a clear statement of project goal)**

The Monarch butterfly is facing serious challenges that need to be tackled simultaneously in Canada, Mexico and the United States. Outreach and awareness have been identified in the North American Monarch Action Plan (CEC 2008) as priority objectives to preserve the migratory phenomenon. Therefore, this project aims at leading the **development of a trilateral communication strategy**, as well as at **fostering citizen- and local community-based initiatives and educational programs** that will disperse information on the migratory phenomenon to all levels of society, and that will have positive impact on the preservation of important Monarch habitats.

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

1. A trilateral communication strategy has been developed for the Trinational High Level Working Group for the Conservation of the Monarch Butterfly Migratory Phenomenon (TWG) that includes the following:
  - a. a communication strategy that includes messages related to traditional ecological knowledge,
  - b. clearly defined target audiences, and
  - c. citizen- and local community-based initiatives.
2. Efforts to coordinate citizen- and local community-based initiatives have been supported.
3. Review of experiences and best practices has been conducted.

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

1. The migratory phenomenon of the Monarch butterfly is better known and understood by the public in general, and specific actions for its preservation better coordinated among target audiences, including local and federal authorities.
2. The best practices in creating and maintaining pollinator gardens are available to local communities and schools, as appropriate, along the migratory route.
3. Contributions of indigenous communities to the conservation of the Monarch butterfly have been gathered and synthesized.
4. Communication of experiences, mechanisms and educational programs to adapt to the different local and country needs have been shared.

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

1. Citizens from the three countries value the importance of the migratory phenomenon and the role of Monarchs as a flagship species for insect conservation and migratory species.
2. Target audiences have modified their behavior/activity in order to preserve Monarch habitats and the migratory phenomenon.

**Performance Measures (quantified SMART measures)**

<b>Outcome</b>	<b>Measure</b>	<b>Target</b>	<b>Indicator</b>
By 2017, a trilateral communication strategy has been developed among the three countries, including key messages relative to each country, indigenous knowledge, and trilateral priorities related to the conservation of the Monarch flyway	Communications strategy	Communications strategy produced	The communications strategy is made available to experts of the Trinational High Level Working Group for the Conservation of the Monarch Butterfly Migratory Phenomenon
By 2017, information gathered and synthesized from traditional ecological knowledge is available	Information gathered and synthesized	Integration of as much traditional ecological knowledge related to monarchs from as many indigenous communities across North America as possible and appropriate	Integration of traditional ecological knowledge into trilateral messages
By 2017, efforts to coordinate inventory and monitoring protocols have been undertaken	Assessment of protocols	100% of inventory and monitoring protocols have been assessed	Availability of assessment on the CEC's website
By 2017, best practices, novel approaches, and priorities for educational and awareness programs in the three countries have been compiled and are publicly available	Compilation of best practices, novel approaches, and education programs	100% of practices and programs compiled	Availability of practices and links to programs on CEC's website

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

- 1) Trilateral communication strategy
- 2) Citizen- and local community–based initiatives
- 3) Trilateral education and awareness programs

<b>Task #1) Trilateral communication strategy</b>				
<b>Subtask</b>	<b>Project outputs</b>	<b>How does the subtask/output move the project toward the environmental outcome</b>	<b>Timing</b>	<b>Budget (C\$) (activities)</b>
1.1 Establish trilateral communication strategy, approved “political” messages; identify target audiences and specific representatives to contact in other sectors; align complementary activities with CEC “Engaging Farmers” project	Meeting with experts representatives of the High Level Working Group  Communications strategy produced	Identify priority outreach and communication actions for the three countries and coordinate activities with other initiatives and revision of North American Monarch Conservation Plan	Year 1	Year 1: \$25,000 Year 2: \$0
1.2 Gather information and synthesize traditional ecological knowledge where possible	Information gathered and synthesized	Indigenous communities are directly and indirectly involved in conservation of the Monarch	Year 1	Year 1: \$40,000 Year 2: \$0
1.3 Dialogue with representatives from different sectors; identify gaps in communication and develop appropriate messages for target audiences, including indigenous leaders, as appropriate	Cross-sectorial workshop with representatives from target audiences (i.e., health, agriculture, transport)  Specific messages developed	Project output aligned with CEC project “Engaging Farmers and Other Landowners to Support Monarch Butterfly and Pollinator Conservation”  Target audiences are sensitized to requirements of the Monarch	Year 2	Year 1: \$0 Year 2: \$45,000

**Task #2) Coordination of citizen- and local community–based initiatives**

<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 Identify partners and facilitate dialogue between partners in order to improve coordination of efforts, and create synergies, including in indigenous communities, as appropriate and as per task 1	In-person or webinar-based meeting with representatives from main organizations devoted to conservation of the Monarch	Citizen- and local community–based initiatives are promoted and their efforts coordinated	Year 1	Year 1: \$45,000 Year 2: \$0
2.2 Coordinate inventory and monitoring protocols across the three countries, building upon the efforts of the sister protected area network and MonarchNet	Assessment of protocols	Data collection along the migratory route is necessary to better understand the migratory phenomenon.	Year 2	Year 1: \$0 Year 2: \$45,000

**Task #3) Trilateral education and awareness programs**

<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 Identify best practices, novel approaches, and priorities for educational and awareness programs in the three countries	Meeting with experts of Monarch educational and awareness programs and pollinator gardens		Year 1	Year 1: \$25,000 Year 2: \$0
3.2 Set up a collaborative program between educational programs in all three countries	Exchange programs or create new activities	Communication of experiences, mechanisms and educational programs to	Year 2	Year 1: \$0 Year 2 \$75,000

		adapt to the different local and country needs have been shared.		
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**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 addresses the Sustainable Communities and Ecosystems strategic priority and all three subthemes of the priority (Priority Species and Ecosystems, Landscapes and Seascapes, Sustainable Communities and Urban Initiatives) as the Monarch is a priority species which travels across a large number of landscapes and depends on the preservation of fragile habitats that are important resources for humans, who rely on them for their subsistence—crop fields, forest patches or wintering habitats.

Indigenous communities will play a crucial role in this project as the traditional ecological knowledge and customs related to the Monarch flyway will be gathered and synthesized. By emphasizing the importance of their natural and cultural heritage, the project seeks to increase indigenous communities' involvement in Monarch conservation efforts, as well as to raise awareness of the importance of preserving their ancestral traditions and increase interest in their Monarch-related products/handicrafts.

Lastly, the citizen- and local communities–based initiatives and education components of this project will encourage information-sharing and trilateral communication as well as capacity building in educational programs.

- **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?)**

The Monarch, symbol of the Commission for Environmental Cooperation, is renowned worldwide for its spectacular and unique flyway across North America. However, habitat loss and degradation pose serious threats to migratory populations throughout their annual cycle (CEC 2008). In December 2013, the number of Monarch butterflies recorded in the wintering habitats in Mexico was the lowest ever documented since 1993. In response to this precipitous decline, the North American leaders agreed to establish, on 19 February 2014, a Trinational High Level Working Group for the Conservation of the Monarch Butterfly Migratory Phenomenon. Based on the North American Monarch Conservation Plan issued by the CEC in 2008, key objectives for the Working Group include promoting social participation, outreach and education in the three countries.

- **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.**

All project tasks will be carried out from July 2015 to June 2017. The tasks will build on the strong continental partnerships established by the Trinational High Level Working Group for the Conservation of the Monarch Butterfly Migratory Phenomenon and will build on previous trilateral work to develop and share messages, protocols and educational programs.

Performance measures include the following:

- By 2017, a trilateral communication strategy has been developed in the three countries, including key messages relative to each country, indigenous knowledge and trilateral priorities related to the conservation of the Monarch flyway.
  - By 2017, information gathered and synthesized from traditional ecological knowledge is available.
  - By 2017, efforts to coordinate inventory and monitoring protocols have been undertaken.
  - By 2017, best practices, novel approaches, and priorities for educational and awareness programs in the three countries have been compiled and are publicly available.
- **Where applicable, identify with reasonable specificity the following:**
    - **Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication**

This project builds directly on previous CEC projects focused on monarchs, most importantly the North American Monarch Conservation Plan (CEC 2008). It will also collaborate with the “Engaging Farmers and Other Landowners to Support Monarch Butterfly and Pollinator Conservation” project, which is also part of the CEC 2015–2016 Operational Plan. The migratory phenomenon of the Monarch butterfly is better known and understood by the public in general, and specific actions for its preservation better coordinated by target audiences, including local and federal authorities.

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

Stakeholders and key participants include federal, state and provincial government agencies, conservation organizations, academic institutions, educational institutions and, most importantly, indigenous and local communities. Examples of partners follow:

In the US, key NGO partners include The Xerces Society for Invertebrate Conservation, the University of Iowa Tallgrass Prairie Center, and the University of Minnesota Monarch Lab, and federal partners include the USDA Natural Resource Conservation Service and Farm Service Agency, the US Fish and Wildlife Service, and the US Forest Service. Other partners may include state departments of natural resources and county Conservation Districts, and many local and regional nonprofits. The high level of current interest in monarch conservation in all three North American countries will provide a strong incentive for engagement.

In Canada, partner organizations may include provincial departments of natural resources/environment (Ontario Ministry of Natural Resources and Forestry; *Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques*, in Quebec; *Ministère des Forêts, de la Faune et des Parcs*, in Quebec). Other partners may include agriculture nonprofit organizations such as: the Canadian Federation of Agriculture, and the Canadian Forage and Grasslands Association, and NGOs with experience in Monarch education and outreach, such as the Montreal Insectarium, Nature Canada, the Canadian Wildlife Federation, and Pollinator Partnership Canada.

In Mexico, partner governmental organizations may include The Ministry of Education (SEP), the National Commission for Knowledge and Use of Biodiversity (Conabio), the Federal Agency for Environmental Protection (Profepa), the National Forestry Commission (Conafor), and the International Unit for International Affairs Coordination (UCAI-Semarnat). At the regional level, key state governmental partners include the governments of Tamaulipas, Coahuila, Nuevo León, Michoacán, San Luis Potosí, Querétaro, and Estado de México.

Key NGOs partners include *Grupo de los Cien*, World Wildlife Fund, WWF-Mexico, The Nature Conservancy, and ProNatura (*Correo Real*), and partners from universities may include *Instituto de Biología* of the *Universidad Nacional Autónoma de México* (UNAM).