Annual Report 2024







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A Word from the CEC Executive Director

According to the World Meteorological Organization,¹ the year 2024 was the warmest year on record, with each of the last ten years also registering as the hottest ever. Extreme weather events that used to occur a handful of times a year across North America now occur every few weeks or even concurrently. Wildfires, floods, droughts, severe storms, extreme heat, and other radically unpredictable weather patterns bring physical, environmental and human harm, causing extensive property damage, reduced crop yields and migratory displacement, and result in economic loss measured in the order of hundreds of millions to billions of dollars. Our rapidly changing climate, aggravated by accelerating biodiversity loss, is creating vast regions of extreme vulnerability, economic and public health risks, and security threats. Humans in North America, as far as we know, have never faced such unstable and costly environmental risks as we do today.

Entering into a fourth decade since its founding in 1994 under the former North American Free Trade Agreement (NAFTA), and now the USMCA² (the United States, Mexico and Canada Trade Agreement), the Commission for Environmental Cooperation (CEC) has been a dynamic and collaborative platform for trilateral environmental cooperation, helping our three countries develop harmonious and collaborative approaches to tackle some of the most pressing environmental challenges that North America has ever faced.

We have worked across North America to share best practices on ways to protect our environment and build ecological resilience, to map North America's natural resources and create comparable pollution inventories, and to safeguard the movement of toxic waste across our borders. We have helped promote energy efficiency, innovations and emissions reductions, and have supported a better management of waste, recycling and reuse. We have collaborated to protect regional migratory species and shared ecosystems, including forests, wetlands, grasslands, and marine environments. We have learned to respect and incorporate Indigenous and traditional ecological knowledge into environmental projects and initiatives. We have introduced programs to protect our air and water, promoting public health and tackling environmental inequalities among vulnerable communities. We have launched initiatives to identify pollution source points, alert communities to severe weather events before they happen, and have worked across the three countries to ensure greater compliance with our environmental regulations and laws.

Since our founding over three decades ago, hundreds of projects have been implemented, engaging thousands of communities that support local action to protect our ecosystems and biodiversity, and have strengthened community resilience to environmental risks and impacts. Through our research-based strategic planning, our outreach, engagement, communication and education initiatives, through meetings and consultations, webinars, seminars, and conferences (virtual and in person), we have brought together tens of thousands of everyday people, community leaders, academics,

Indigenous leaders, policy makers, youth, public officials, and members of civil society to share experiences and engage in the CEC's work on the protection of the North American environment.

This 2024 Annual Report summarizes CEC programs and initiatives carried out during the year in collaboration with our partners across North America, as well as key activities of the CEC's Joint Public Advisory Committee (JPAC) and the Traditional Ecological Knowledge Experts Group (TEKEG), each of which provide critical advice to the CEC Secretariat and Council. The CEC Annual Report is intended to inform the public, our collaborators and partners on how we are putting our collective resources to work to promote environmental protection across North America, in tune with our mandate and our Strategic and Operational Plans.

Aided by longstanding and newly emerging North American partnerships forged between people, communities, civil society, business and public agencies, the work of the CEC is more important than ever to better steward our environmental resources, protect North American ecosystems, and increase environmental and community resilience for many years to come.

Jorge Daniel Taillant

Executive Director

Commission for Environmental Cooperation

^{1.} Available at: https://wmo.int/news/media-centre/wmo-confirms-2024-warmest-year-record-about-155degc-above-pre-industrial-level.

^{2.} CUSMA and T-MEC in Canada and Mexico, respectively.

CEC Mission Statement

The CEC facilitates effective cooperation and public participation to conserve, protect and enhance the North American environment in support of sustainable development for the benefit of present and future generations.

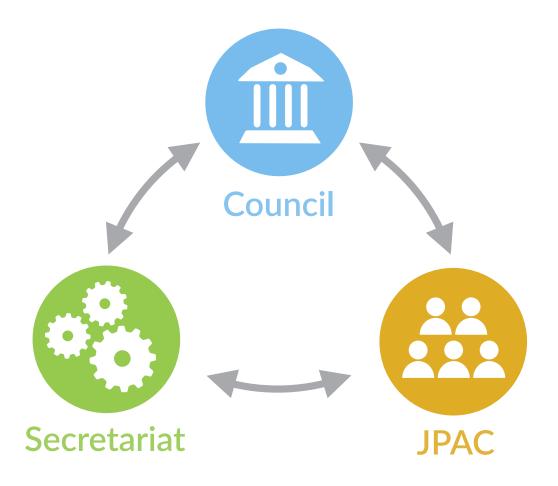


Figure 1. The Three Constituent Bodies of the CEC

The Three Constituent Bodies of the CEC

Council: The Council is the CEC's governing body and comprises cabinet-level representatives from Canada, Mexico, and the United States.

Secretariat: The Secretariat provides technical, administrative and operational support to the Council.

JPAC: The Joint Public Advisory Committee provides advice to the Council and comprises nine appointed volunteer individuals, three each from Canada, Mexico and the United States.

#CEC31 Council Session



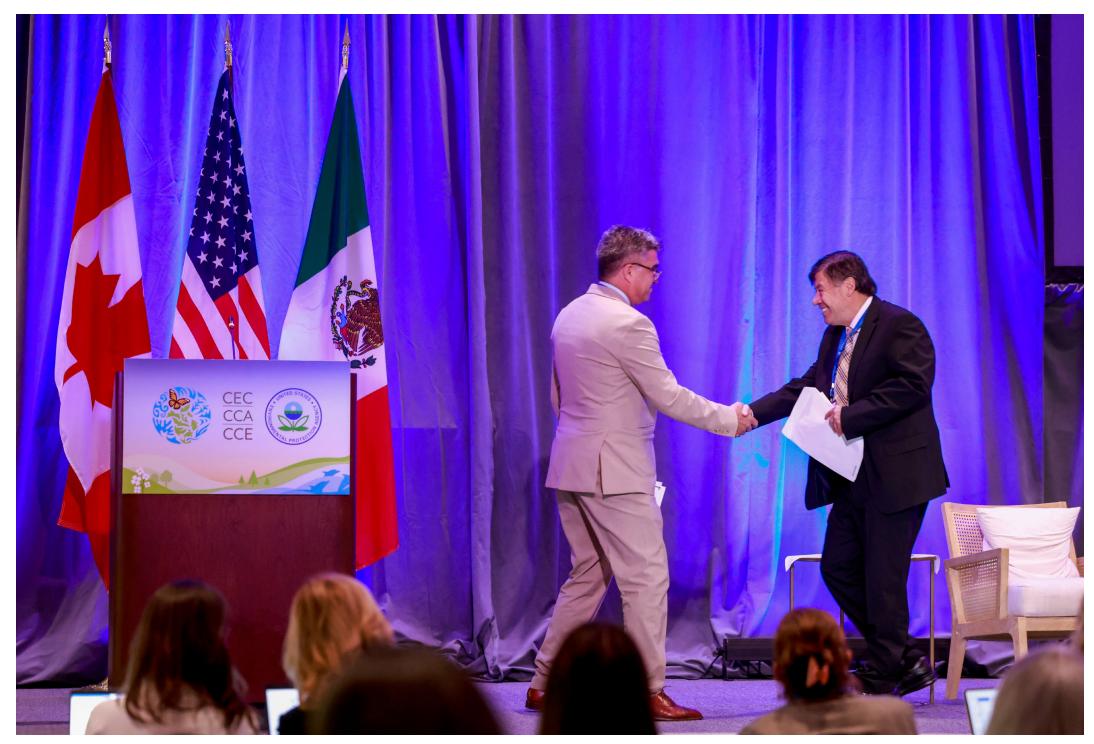


Figure 2. CEC 31 graphic for all communication purposes

Annual CEC Council Session and JPAC Public Forum

Each year, the CEC brings together the top environmental officials from Canada, Mexico and the United States to engage with the public in a dialogue on pressing environmental issues facing the North American region. In 2024, United States Environmental Protection Agency then-Administrator Michael Regan hosted his Council counterparts in Wilmington, North Carolina (#CEC31).

In accordance with Article 3(4) of the Agreement on Environmental Cooperation (ECA), the CEC Council holds public meetings in the course of all regular sessions. These public meetings have been held since 1995 and are a unique opportunity for North Americans to engage and share their views with senior environmental officials on the protection of the North American environment in the context of regional free trade. The 2024 Council public meeting focused on "Strengthening Environmental Justice through Community Empowerment."



CEC Executive Director and JPAC Chair at JPAC Public Forum 2024.

As part of the 31st Council Session, the CEC announced the following3:

- US\$1.5 million for the fourth cycle of the EJ4Climate grant program that will focus on projects to increase environmental justice and climate adaptation knowledge. The EJ4Climate grant program assists underserved and vulnerable communities and Indigenous communities in Canada, Mexico and the United States in preparing for climate-related impacts.
- C\$500,000 to launch a new initiative, "North American Environmental Justice Action Center," that will promote and leverage equitable environmental and climate resilience and environmental justice (EJ) actions across North America.
- Four new projects focusing on shared environmental priority areas:
 - O Designing and Conducting an Outreach Campaign at the 2026 World Cup is a project aiming to educate the public on food waste reduction via the biggest sporting event in history.
 - O Sharing Best Practices for Environmentally Sound Management of Used Lead Acid Batteries, a project that aims to assess the uptake of the CEC's guidance on the environmentally sound management of spent lead acid batteries (SLABs) published in 2016.
 - o Another continuation of the CEC project, *Modernizing the Data Exchange System for Hazardous Waste Transfers*, to modernize the Notice and Consent Electronic Data Exchange (NCEDE) system that exchanges data on hazardous waste cross-border transfers.
 - o Another follow-up project is *Support to the Monarch Butterfly Trilateral Scientific Group*, which will help ensure the trilateral scientific group's continued progress and contribution to monarch conservation efforts in North America.

^{3.} For more information, visit: http://www.cec.org/wp-content/uploads/cec-council-statement-2024-en.pdf.

The CEC's Joint Public Advisory Committee (JPAC) also hosted a Public Forum on 24 June⁴ that provided public participants the opportunity to engage in an open dialogue and share their experiences on advancing environmental justice and empowering communities across North America, helping the CEC to identify critical and emerging environmental issues at the local and regional levels.

Throughout #CEC31, the CEC also presented its work on environmental justice, hosted a Youth Panel that provided intergenerational perspectives from across North America, and held an Expert Roundtable, with the CEC Executive Director, that featured a discussion on the unique histories and trajectories of environmental justice and its evolution in Canada, Mexico and the United States.

The 2024 Council Session and JPAC Public Forum were open to the public and both were live streamed in English, French and Spanish.



Esteban Escamilla Prado, JPAC Chair at JPAC Public Forum 2024.

^{4.} The agenda for the JPAC forum is available at: http://www.cec.org/events/cec31/.

A Common Vision to Protect the Environment and Health of Communities in North America

The 2024 Council Session centered on opportunities for advancing environmental justice actions in North America to empower communities. Some of these opportunities included actions to improve air quality in disadvantaged neighborhoods, fostered interactions between community leaders and public officials on environmental justice issues, and meaningful engagement with key groups, including youth leaders.

"The United States is proud to host the 31st CEC Council Session and to reaffirm our commitment to advancing environmental justice and community empowerment through our collaborative work with the CEC. Strengthening environmental governance, and ensuring equitable access to clean air, water and land for all, especially historically underserved communities, is central to our mission. This year's focus on empowering communities and fostering meaningful engagement is crucial for building a just, inclusive and sustainable future. We will continue to work closely with our partners in Canada and Mexico, as well as with local communities, youth leaders and Indigenous groups, to tackle our most urgent environmental challenges, protect public health and promote environmental justice across North America."

Janet McCabe, Former United States
 Environmental Protection Agency Deputy
 Administrator

"As we tackle the challenges of the triple planetary crisis of climate change, biodiversity loss and pollution, the cooperation between our three countries, through the CEC, is more important than ever. We have delivered important contributions to the environment, including food loss and waste initiatives, the Generation of Environmental Leaders program and cross-cutting environmental justice work. The CEC remains a crucial partner in delivering these initiatives that address our shared regional challenges."

Sandra McCardell, Assistant Deputy
 Minister, International Affairs,
 Environment and Climate Change
 Canada

"The government of Mexico acknowledges the right of communities to a healthy environment, and therefore puts a priority on guaranteeing equitable and sustainable access to the benefits flowing from the use of natural resources, while also promoting and strengthening the participation of Indigenous Peoples and local communities in environmental decision-making, with respect for their knowledge and ways of life, in accordance with the initiatives, programs, and projects implemented by the CEC in the North American region."

Iván Rico López, Undersecretary for
 Environmental and Natural Resources
 of the Secretariat of Environment and
 Natural Resources of Mexico (Semarnat)

Full version of 2024 CEC Council Statement, available here

Turning the Vision into Action

The <u>Strategic Plan 2021–2025</u> defines a path forward for our three countries to work together on pressing regional and global environmental issues, outlining six priority areas for cooperation and two cross-cutting approaches to support more effective implementation of the CEC's work.

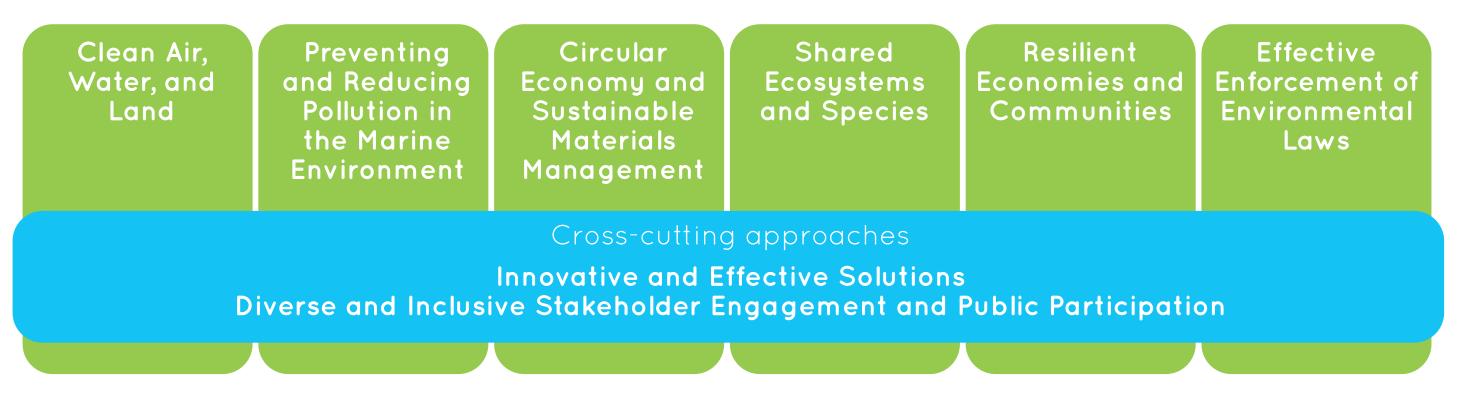


Figure 3. CEC 2021-2025 Strategic Pillars

The CEC's cooperative work program includes core projects and Council initiatives. Core projects are multi-year cooperative projects funded from the annual contributions of the three Parties and focused on addressing key areas for cooperation under the six strategic pillars for 2021–2025 (presented above): clean air, land, and water; preventing and reducing pollution in the marine environment; circular economy and sustainable materials management; shared ecosystems and species; resilient economies and communities; and effective enforcement of environmental laws.

Council initiatives are generally funded through accumulated surplus funds and announced annually by the Council at the annual Council Session. These new Council initiatives are often designed to address the theme of the Council Session or other emerging regional priorities.

This dynamic process of introducing new projects and initiatives to reflect emerging priorities, while sustaining core projects creates a resilient and vibrant landscape of environmental cooperation addressing the region's most important and pressing environmental issues.

Throughout 2024, efforts focused on the development of the following projects and initiatives that advanced the ambitious agenda of the five-year Strategic Plan 2021–2025 and provides the status of cooperative projects, progress update, and notable results achieved during the year.



Cooperative Projects — Progress and Results



Reduction of Marine Litter

Budget and duration: C\$800,000 30 months (November 2021–April 2024)

Marine litter is a growing problem that negatively affects economies, threatens ecosystems and marine species and poses risks to human health. It is estimated that 80% of marine litter originates from land-based sources, often due to the improper disposal of items or uncollected waste that becomes litter and travels through watersheds to the oceans. Previous CEC work on marine litter includes the development of guidance and engagement tools to reduce marine litter in inland communities. Building on this past work, the project aimed to build public awareness about marine litter, deploy litter capture devices in selected communities, and collect comparable data across the three countries, informing local action to reduce landbased marine litter, including single-use plastic products and packaging, in communities located inland along waterways in North America.

In 2024, the CEC supported the uptake and implementation by local organizations of the Last Stop: The Ocean (LSTO) public awareness campaign toolkit and community engagement guide. Click here for more information about the project.

- This project helped prevent/reduce land-based marine litter by using engagement and communications tools to build awareness about marine litter in selected inland communities along waterways in North America.
- The CEC contributed to plastic pollution outreach efforts by showcasing the LSTO and community engagement material at the Canada Plastic Action Zone of the Intergovernmental Negotiating Committee on Plastic Pollution session held in Ottawa (Canada) in April. This helped inform potential users of the inland litter public awareness campaign material (LSTO) and community engagement guide.
- Three communities were empowered to develop local action plans for land-based marine litter reduction. The CEC implemented the LSTO material in public spaces in Toronto (Canada), Chiapa de Corzo (Mexico) and the Quad Cities (United States), where it reached large audiences (from thousands to hundreds of thousands, depending on the location).
- Other communities can act similarly to prevent and reduce litter locally by applying the Community Engagement Toolkit and "Last Stop: The Ocean" public awareness campaign material available online for their use.
- The project concluded its implementation in 2024.

Advancing Pollinator Conservation throughout North America

Budget and duration: C\$497,000

24 months (February 2022–January 2024)

Pollinators support the reproduction of 80% of wild vascular plants and 75% of crop species, and as such are crucial to food security, human well-being and natural ecosystems. The number of pollinators has greatly declined worldwide. This decline requires urgent conservation actions and the engagement of key actors in different sectors to help bring back pollinators and increase their resilience. Building on past work by the CEC as well as ongoing national efforts on pollinator conservation, the project laid the foundations for expanded and standardized data repositories to inform pollinator conservation actions across the continent and developed communication materials to raise awareness about pollinators and their importance to our North American ecosystems.

In 2024, the CEC communicated the environmental, social and economic benefits of pollinators for communities, food production and natural ecosystem functioning through its "People for Pollinators" campaign, fostering public support and understanding of the importance of pollinators. The CEC also published a State of Knowledge on North American Pollinator Conservation, a report on native bee inventories, and supported the update of a geospatial tool for bee inventories (The Bee Tool). Click here for more information about the project.

- The project strengthened pollinator conservation in North America by providing tools for conservation practitioners and communication materials for the public, including:
 - A report on programs and practices for native bee inventories and monitoring
 - o A report on strategies to organize and mobilize native bee inventory and monitoring across North America using geospatial decision-making tools
 - o A "State of Knowledge on North American Pollinator Conservation"
 - o Regular social-media posts to drive positive action for pollinators under the North American digital communication campaign "People for Pollinators"
- The project concluded its implementation in 2024.



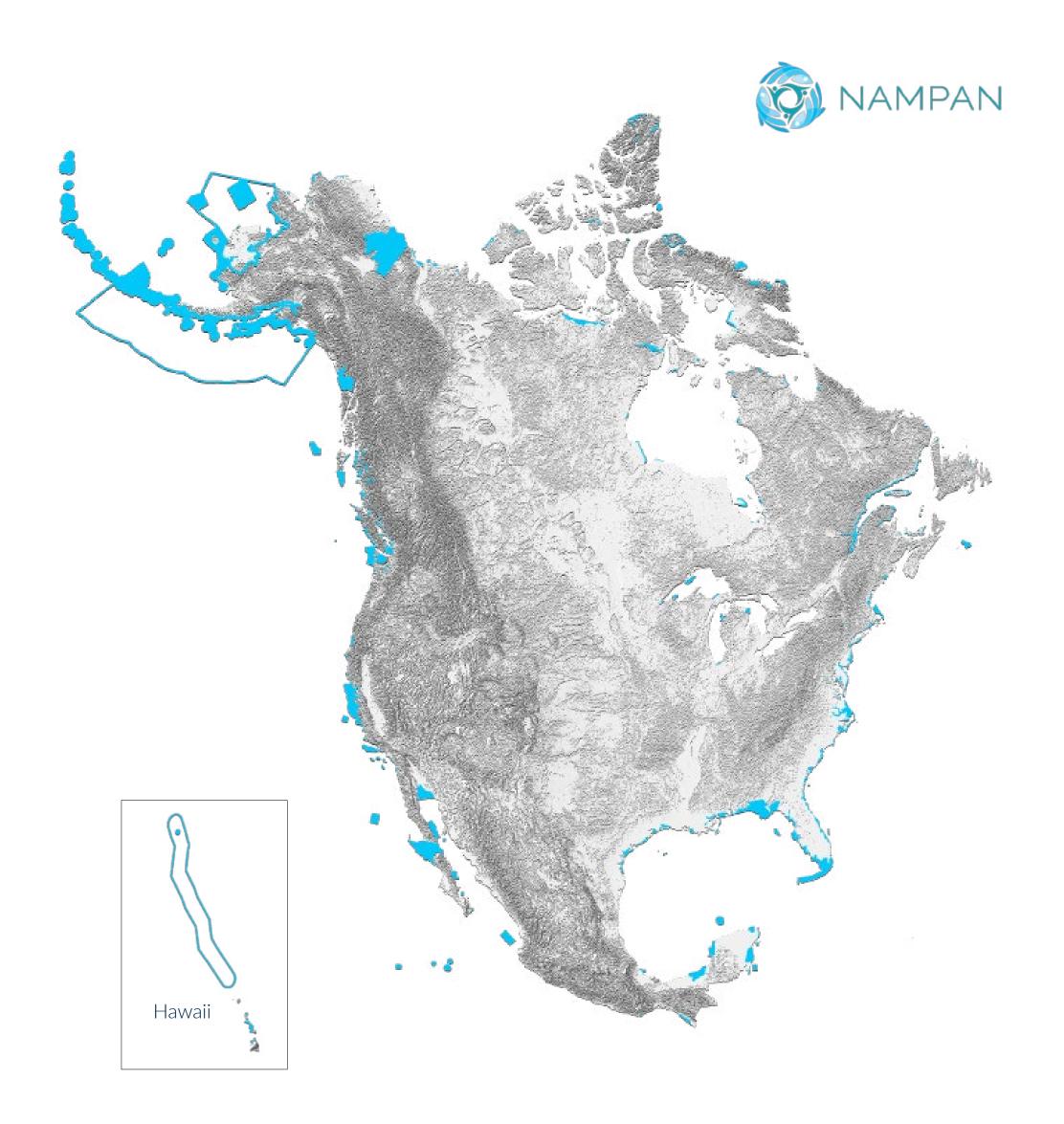
Enhancing Co-benefits of Marine Protected Areas

Budget and duration: C\$590,000 41 months (January 2022–April 2025)

This project is focused on strengthening connectivity and adaptation capacity in marine protected areas (MPAs) and supporting an ecologically sustainable and socially inclusive MPAs North American network. Recognizing the leadership role that Indigenous and local communities can play in managing and conserving coastal and marine areas, the CEC is also supporting knowledge sharing and capacity building among these communities.

In 2024, the CEC developed knowledge on socio-ecological connectivity and conservation to strengthen seascapelevel conservation of sharks and whales in the Northeast Pacific, and shared knowledge and practices for the management of blue carbon. Click here for more information about the project.

- The project is contributing to enhancing co-benefits of MPAs by increasing Indigenous and local leadership in MPA networks; facilitating seascape-level conservation through collaboration on selected species groups; and identifying and sharing best practices for climate change adaptation and mitigation, habitat restoration, and blue carbon and other critical habitat work. This includes:
 - o Holding a Blue Carbon restoration and management virtual workshop series to share knowledge and best practices across North America.
 - o Holding a workshop series to support transboundary collaboration on migratory shark conservation in the Northeast Pacific.
 - Contributing to a workshop on whale conservation led by the US National
 Oceanic and Atmospheric Administration
 (NOAA) to broaden the reach to North
 American practitioners.





Grasslands Conservation and Migratory Birds

Budget and duration: C\$450,000

36 months (November 2021–October 2024)

This project supported Central Grasslands conservation by facilitating inclusive and diverse collaboration, providing information on the human dimensions of grasslands conservation, and developing a collaborative framework for monitoring grasslands change.

In 2024, the CEC produced a social science analysis of challenges, constraints, and drivers for the conservation of grasslands, analyzing human dimensions (motivations, values, economics, needs of communities and barriers) to inform grasslands conservation strategies. The CEC also held workshops on monitoring native grassland cover across North America and delivering a grasslands monitoring report. The CEC supported engagement of those less represented in or absent from the Central Grasslands Roadmap, including Indigenous communities within Mexico. Click here for more information about the project.

- This project contributed to grasslands conservation by filling three recognized gaps in central grasslands conservation:
 - First, the project produced a human dimensions study of Central Grasslands conservation, to inform conservation actions.
 - Second, the project synthesized knowledge on grasslands inventories, to support cooperative monitoring of Central Grassland change.
 - o Third, Central Grasslands Roadmap collaboration for conservation was strengthened and expanded through more inclusive engagement with underrepresented and new partners, including Indigenous communities in Chihuahua, Mexico.
- Project implementation concluded in 2024.

Nature-based Solutions to Address Flooding in Coastal Cities

Budget and duration: C\$560,000

42 months (November 2021-April 2025 and extended to November 2025)

Natural areas adjacent to cities provide ecosystem benefits and services that support climate change adaptation for the communities. Inspired by these systems, nature-based solutions (NBS) reduce flood and erosion risk through the protection, restoration, and sustainable management of natural coastal environments, and the construction of new features that mimic or work with ecological processes. As countries look to replace, strengthen or build new infrastructure, NBS represent one promising way to combine development, disaster risk reduction and conservation objectives. Building on past collaborative experiences that advance knowledge on blue carbon, coastal adaptation and extreme events, we can build capacity for coastal communities to address flood risk in a changing climate through NBS.

In 2024, the CEC prepared guidance documents for decision-makers on the co-benefits of NBS, retrofitting existing infrastructure, and monitoring the efficacy of NBS, with accompanying briefing notes to support uptake. Click here for more information about the project.

- The project addresses barriers to using NBS to address flood risks in coastal communities by producing on co-benefits, producing guidance material on the co-benefits of NBS, monitoring NBS performance, and retrofitting existing infrastructure with NBS, so that decision-makers have key information when considering flood-risk reduction infrastructure options.
- The project is strengthening local capacity to implement NBS by exchanging knowledge across disciplines and the three countries through a series of practitioner webinars.





Transforming Recycling and Solid Waste Management in North America

Budget and duration: C\$1,530,000

Phase I (Years 1 and 2 — Objective 1); **C\$745,000 Phase II** (Years 3 and 4 — Objective 2); **C\$785,000**, 48 months (November 2021–October 2025)

Reducing waste and closing material loops helps minimize environmental impacts throughout the value chain of resources and products, generating considerable economic opportunities. Circular economy strategies, including a multitude of recovery options, are estimated to unlock US\$4.5 trillion in economic growth around the globe. The transition to a circular economy and increased material recovery also offers the potential for climate change mitigation. Shifting toward sustainable production and consumption patterns is about improving the management and efficient use of materials and resources. This shift opens the door to new economic and environmental opportunities, as well as securing a more sustainable and resilient economic future.

In 2024, the CEC finalized three milestone studies on bioplastic, plastic and paper waste management and recycling in Canada and the United States, with additional complementary research requested by Mexico, to be completed in 2025. Based on the results of the milestone studies, the CEC began defining activities and pilot testing projects for sustainable waste management in the region to be implemented in 2025. Click here for more information about the project.

- The project contributes to acceleration of circular economy uptake and sustainable materials management practices that are needed to transform North American recycling and solid waste management through the following:
 - o The CEC finalized three milestone studies on bioplastic, plastic and paper waste management and recycling in Canada and the United States. The studies provide better understanding of the opportunities in the recycling sector and secondary materials markets to support approaches to encourage eco-design and increase product and material reuse, recovery and recycling rates.
 - o As agreed trilaterally, initial information for the milestone studies of Mexico was gathered and a consultant hired to carry out the "Study on the Management of Paper, Plastic and Bioplastic Postconsumer Waste and Secondary Markets in Mexico" as complementary work to finalize the milestone studies for Mexico in 2025.
 - o In preparation for the implementation of Phase II of the project, the CEC continued the discussions with Canada and the United States to define the activities, resources, and/or pilot testing that will be undertaken. The Steering Committee has agreed on hiring the consultant who developed the milestone studies to also undertake the pilot work of Phase II.

Advancing Supply Chain Transparency for Chemicals in Products

Budget and duration: C\$270,000 35 months (July 2022–May 2025)

The goal of this project is to foster collaboration among North American countries to improve supply chain transparency (SCT) and enhance governments' ability to identify and prevent products containing chemicals of concern, or chemical substitutes of concern (e.g., regrettable substitution), from entering or re-entering the economy. The information derived from this project will also help industry build resilient supply chains that respond to consumer demand for safer products and information on their chemical composition.

In 2024, the CEC conducted case studies in three industry sectors (cosmetics/personal care products, electronics and building materials). Selected sectors were chosen on the basis of their uptake and adoption of best practices in supply chain transparency and their regional impact. The CEC conducted two sector-specific workshops to gather additional experts' input and a third internal workshop to develop recommendations for improving supply chain transparency in North America. Click here for more information about the project.

- The project contributes to identifying existing and emerging technologies and methods for product data-sharing, potential barriers to industry, and possible approaches to overcome these barriers. More specifically, the CEC coordinated three workshops to validate and disseminate the results of case studies and development of recommendations to improve SCT:
 - o Workshop 1 on electronics (10 October 2024)
 - o Workshop 2 on cosmetics and personal care projects (23 October 2024)
 - o Workshop 3 on the development of recommendations (January 2025)
- Completed the drafts for the three case studies, the recommendations and a summary brief of the overall activities, and a dynamic table on SCT tools and instruments currently used in North America, based on the information gathered from an interim report, consultations and workshops.





Communities for Environmental Justice Network (CEJN)

Budget and duration: C\$190,000 23 months (April 2023–February 2025)

The CEJN project aims to create a network of Indigenous, local, vulnerable, disadvantaged, and/or underserved communities with environmental justice concerns, to increase local capacity to collect, deepen, and disseminate community-based expertise related to climate change. Through the network, participating members can contribute to disseminating traditional ecological knowledge and practices, and develop a virtual resource library, with the goal of strengthening climate adaptation and mitigation, as well as building the capacity of Indigenous, local and vulnerable communities in Canada, Mexico and the United States.

In 2024, the CEC developed knowledge exchange tools, including a Story Map and the CEJN toolkit, which included culturally relevant information. Click here for more information about the project.

- The project contributed to identifying and engaging communities in North America that share environmental justice concerns and build new links between them.
- The CEC published in September 2024 proceedings from the first trilateral CEJN workshop, which brought together 13 communities and organizations from Canada, Mexico and the US in Oaxaca, Mexico in November 2023.
- To Identify and amplify effective strategies and methods developed by the Network founding members, the project developed knowledge exchange tools, including:
 - o A Story Map showcasing EJ communities and organizations in a visually engaging way on a map of North America. The aim of the Story Map is to facilitate sharing of resources and help communities connect with similar groups to address their needs and challenges;
 - o A first public webinar, held on 13 June 2024, on "CEC Public and Community Engagement Mechanisms," in which 150 people participated; and
 - o A second public webinar on "Impactful Storytelling for Environmental Justice and Climate Resilience," held on 21 November 2024.
- The project helped to increase greater community access to resources, and culturally relevant information about community-led actions to adapt to climate change and mitigate its effects based on environmental justice frameworks. In December 2024, the CEC brought together 18 communities and organizations for a hybrid capacity building workshop in Mexico City, Mexico, focusing on "Practical tools to strengthen community self-reliance and environmental protection."

Stimulating Behavioral Changes to Reduce Food Loss and Waste (FLW) in North America and Expanded Promotion and Uptake of Related CEC FLW Resources

Budget and duration: C\$250,000

18 months (May 2024-October 2025)

The CEC Council acknowledged the importance of building on the success of past CEC FLW projects and continuing to demonstrate CEC leadership and visibility in supporting FLW reduction in North America. Thus, the CEC is developing new, relevant FLW materials, while assisting local policymakers, communities, and other stakeholders in designing and implementing policies that stimulate behavioral changes to reduce FLW. The project continues efforts to expand promotion and uptake in North America of the existing CEC FLW resources and in supporting growth in stakeholder demand for CEC leadership and FLW resources, particularly for the "Food Matters Action Kit" and the "Practical Guide on Why and How to Measure Food Loss and Waste."

In 2024, the CEC started the development of a Guide for Practitioners on when and how to apply different theories of behavioral change to improve the uptake and effectiveness of programs and other types of public-facing interventions for reducing FLW. Additionally, the CEC has continued outreach, promotion, and awareness-raising of CEC products related to FLW reduction. Click here for more information about the project.

- The project contributes to assisting local policymakers, communities, and other stakeholders on designing and implementing actions and policies to stimulate behavior changes to reduce FLW. Thus, the CEC:
 - o Defined workplan, hired a consultant and initiated development of the Guide for Practitioners to be finalized in 2025.
 - o Continued outreach and promotion of CEC FLW products and addressing external requests for support related to their use.
 - o Had active participation during the Food Waste Prevention Week.





Scoping Project on a North American Center for Informed Substitution

Budget and duration: C\$50,000 6-12 months (July 2024-July 2025)

Chemicals are essential for the production of many goods. Traditionally, chemical risk evaluations and subsequent risk management have been used to control exposure levels or restrict the use of highly toxic chemicals of concern. The transition to safer chemicals fundamentally challenges conventional economic drivers in consumption. "Informed substitution" involves the assessment and comparison of chemical alternatives. This transdisciplinary approach requires a high level of collaboration between industry, regulatory agencies, and academia, as well as other key actors. The project allows scoping out the feasibility of establishing a trinational Center for Informed Substitution (CIS) and provides a roadmap for facilitating knowledge-sharing, promoting best practices, and fostering the implementation of chemical alternatives assessment and informed substitution across North America. Click here for more information.

Progress update and notable results:

• The CEC completed the project design and initiated the contractual process with the Institute for Safer Chemicals Alternatives (ISCA) to conduct project implementation activities.





Indigenous Approaches to Freshwater Management in North America

Budget and duration: C\$500,000

37 months (October 2021-November 2024)

Water is central to the spiritual, cultural and personal aspects of Indigenous life, and these holistic relationships and the transfer of intergenerational knowledge inform traditional approaches to the sustainable management of freshwater resources. This project documented these unique perspectives and engaged Indigenous communities across North America.

In 2024, the CEC finalized the Canadian case study with the Manitoba Métis Federation (MMF), which included a video with interviews and social activities related to traditional Red River Métis freshwater management, and also the Online Portal, showcasing Indigenous Peoples' perspectives on freshwater management and sustainable use. Click here for more information about the initiative.

- This initiative engaged various Indigenous communities in North America by providing a space to showcase how the TEK, Indigenous perspectives and stewardship practices are integrated in freshwater management, and how this collective body of knowledge, practices, and beliefs can be replicated across the region.
- As part of the main deliverables, the Online Portal developed by the CEC documented all four activities. The CEC will continue to update the portal in the coming years, with relevant materials, tools, and information, and it will be accessible on the CEC website in 2025.
- Initiative implementation concluded in 2024.

Air Quality Improvement for Environmental Justice

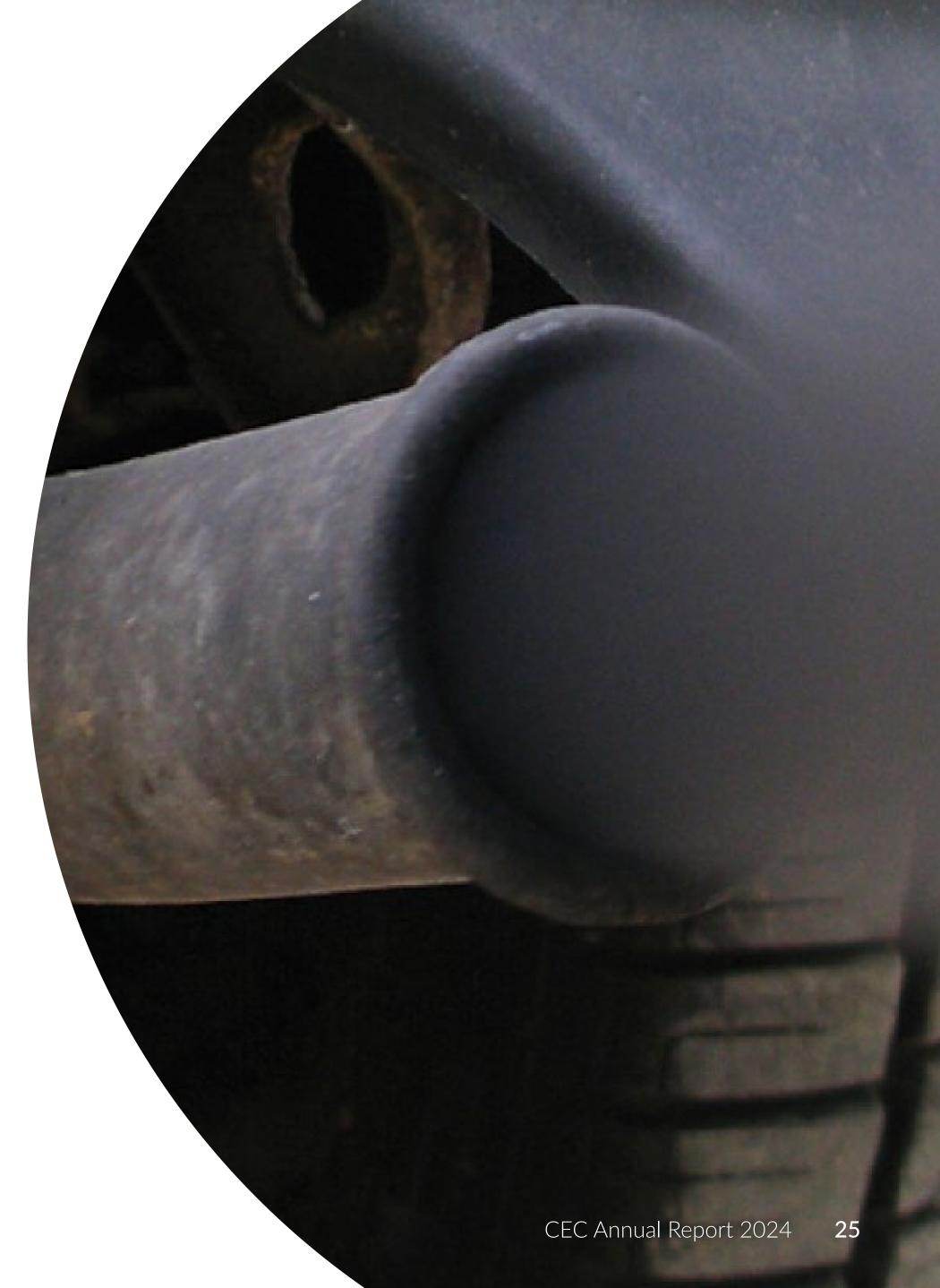
Budget and duration: C\$1,000,000

36 months (October 2022–September 2025)

As part of its expanding work promoting environmental justice, the CEC launched this initiative to build collaborative partnerships with communities that will respond to communityidentified poor air quality conditions from exposures to high levels of black carbon and particulate matter (PM_{2.5}) emissions, as well as communities that potentially experience disproportionate environmental harm or risk, and/or have environmental justice concerns. This initiative will work with communities to deploy low and mid-cost air quality sensors to increase public awareness of and access to air pollution information, identify emission sources and formulate potential emission mitigation strategies.

In 2024, the CEC formalized collaborative partnerships with three community organizations, identified and procured appropriate PM_{2.5}/BC sensor technologies for each community, and supported community-led capacity-building activities on the operation and installation of air quality monitoring sensors. Click here for more information about the initiative.

- The CEC completed a collaboration agreement with the Aamjiwnaang First Nation community, Sarnia, Ontario, Canada; Fundación TOSEPAN, Sierra Norte de Puebla, México; and Comité Cívico del Valle, Imperial Valley, California; for the implementation of project activities with all communities.
- Additionally, the CEC:
 - o Coordinated the first community partners' meeting in Cuetzalan, Puebla, (Mexico), in May to share each organization's background and priorities.
 - o Procured a total of 12 black carbon monitors, one hand-held particle counter, three weather stations, two particle profilers and 22 PM_{2.5} sensors. The numbers and types of monitoring devices were selected and distributed according to community needs and the scope of their activities.
 - o Presented the initiative at the July CEC Council/ JPAC session in Wilmington, North Carolina.
 - o Coordinated hands-on training on the operation and installation of the sensors for each community location. Each organization is working on testing and developing a monitoring strategy.





Addressing Ghost Gear in North America

Budget and duration: C\$1,000,000
38 months (December 2022–February 2026)

Ghost gear (abandoned, lost or discarded fishing gear–ALDFG) is a particularly harmful form of marine debris, putting marine ecosystems at great risk. The Global Ghost Gear Initiative (GGGI) is the largest crosssectoral alliance dedicated to tackling ghost gear, and includes Canada, Mexico, and the United States as governmental members. This project works with the GGGI to engage local communities to prevent, reduce and retrieve ghost gear, and builds knowledge that will advance responsible management of active and end-of-life fishing gear.

In 2024, the CEC promoted best practices for responsible fishing and supported the coordination of ghost gear advocacy initiatives in Mexico. The CEC also piloted market-ready new technology to reduce ghost-gear, training fishers in their use and engaging them in piloting the devices. The CEC supported gear retrieval efforts and completed a study on end-of-life gear collection, disposal and recycling. Click here for more information about the initiative.

- Prevented lost gear in local communities by piloting two new gear-tracking technologies and training 50 fishers to use the new gear-tracking technologies in Punta Abreojos, Mexico.
- Stopped decades of unintentional fishing by a large net on the seafloor in La Paz Bay, Mexico, restoring the area for marine life ALDFG to thrive.
- Reduced the high cost and carbon footprint associated with the collection and transport of end-oflife nets by transitioning to an efficient and sustainable hub-andspoke net collection model.
- Supported broader uptake of Best Practice Frameworks by holding a workshop at the Regional Festival of Sustainable Fisheries and Aquaculture in La Paz, Mexico.

Transitioning Remote Communities to Renewable Energy

Budget and duration: C\$500,000

24 months (April 2023–March 2025 – extended to February 2026)

This initiative is intended to develop case studies of best practices from across North America on transitioning communities to cleaner, more affordable, and reliable sources of clean energy that will improve environmental conditions, enhance energy security, and promote self-sufficiency and community-ownership of energy generation projects. These case studies will be integrated into a "Multi-stakeholder Platform for Transitioning Remote Communities to Renewable Energy," developed by the International Renewable Energy Agency (IRENA), which will serve as a global communications platform on the topic of energy transition for remote communities.

In 2024, the CEC defined the final list of nine case studies in North America (three per country) as models of community-driven ownership and maintenance of renewable energy projects and engaged case study communities in sharing renewable energy transition experiences and lessons learned. The following projects and communities were chosen for the case studies: in Canada, the Haeckel Hill-Thay T'äw Wind Energy Project (Yukon), the BNA Sawmill Biomass-Fueled Heating System (Ontario), the Innavik Hydro Project

(Quebec); in Mexico, the Solar Energy Projects in Zongolica (Veracruz), Sahuaripa (Sonora), and Llera (Tamaulipas); and in the United States, the Borrego Springs Solar Project (California), the Toro Negro Community Solar Microgrid Project (Puerto Rico), and energy projects in the Northwest Arctic Borough (Alaska). The CEC also engaged with community members, local governments, project partners and the International Renewable Energy Agency (IRENA) to collect information for each case study, and conducted a campaign to disseminate and promote the findings of the CEC IRENA initiative and case studies. Click here for more information about the initiative.

Progress update and notable results:

The CEC:

- Conducted research on technical and socioeconomic aspects of the selected renewable energy project and advanced documentation of case studies.
- Confirmed community engagement and participation in providing information for documenting case studies in each of the case study locations.
- Conducted site visits to gather technical information and community feedback energy from each project site.





Resilience of Indigenous Peoples Traditional Food Systems

Budget and duration: C\$300,000

24 months (January 2024-January 2026)

Food security is one of the major global challenges facing humanity today. The climate crisis and the depletion of natural resources have put an increased strain on food production. Promoting and ensuring diverse and sustainable food systems that contribute to human well-being and avoid the deterioration of nature are top priorities now, more than ever. The food systems of Indigenous Peoples have existed since time immemorial and are recognized for being sustainable and respectful of nature. While Indigenous Peoples have demonstrated resilience and leadership in maintaining their traditional food systems, most North American Indigenous communities face traditional food system shortages and crises. The CEC will support the greater inclusion of Indigenous leadership and Indigenous Knowledge, including Traditional Ecological Knowledge, in activities and decisions affecting Indigenous Peoples' traditional food systems.

In 2024, the CEC compiled existing literature regarding the use of Indigenous Knowledge in Indigenous Peoples' food systems throughout North America, and initiated planning efforts for the organization of the North American Indigenous Peoples' Food Systems Forum to take place in early 2025. Click here for more information about the initiative.

- This initiative aims to support the greater inclusion of Indigenous leadership and Indigenous perspectives and knowledge, including Traditional Ecological Knowledge (TEK), in activities and decisions affecting Indigenous Peoples' traditional food systems. To achieve that objective, the CEC and the TEK Expert Group have agreed to modify the initiative by focusing on the following:
 - o Narrowing the scope or creating categories for the project (e.g., hunting, agriculture, fishing and aquatic species).
 - o Reflecting the emphasis of the project description on gender, youth and elders.
 - o Engaging with a wide network versus in-depth engagement with a smaller number of Indigenous communities.
- With the aim of better understanding the current state of traditional food systems of Indigenous Peoples in North America, the CEC has prepared the process to conduct research reports for the three countries after the TEK Expert Group has agreed upon the scope and methodologies for project implementation.

Advancing Responsible Purchasing of Wood Products

Budget and duration: C\$300,000

24 months (January 2024–January 2026)

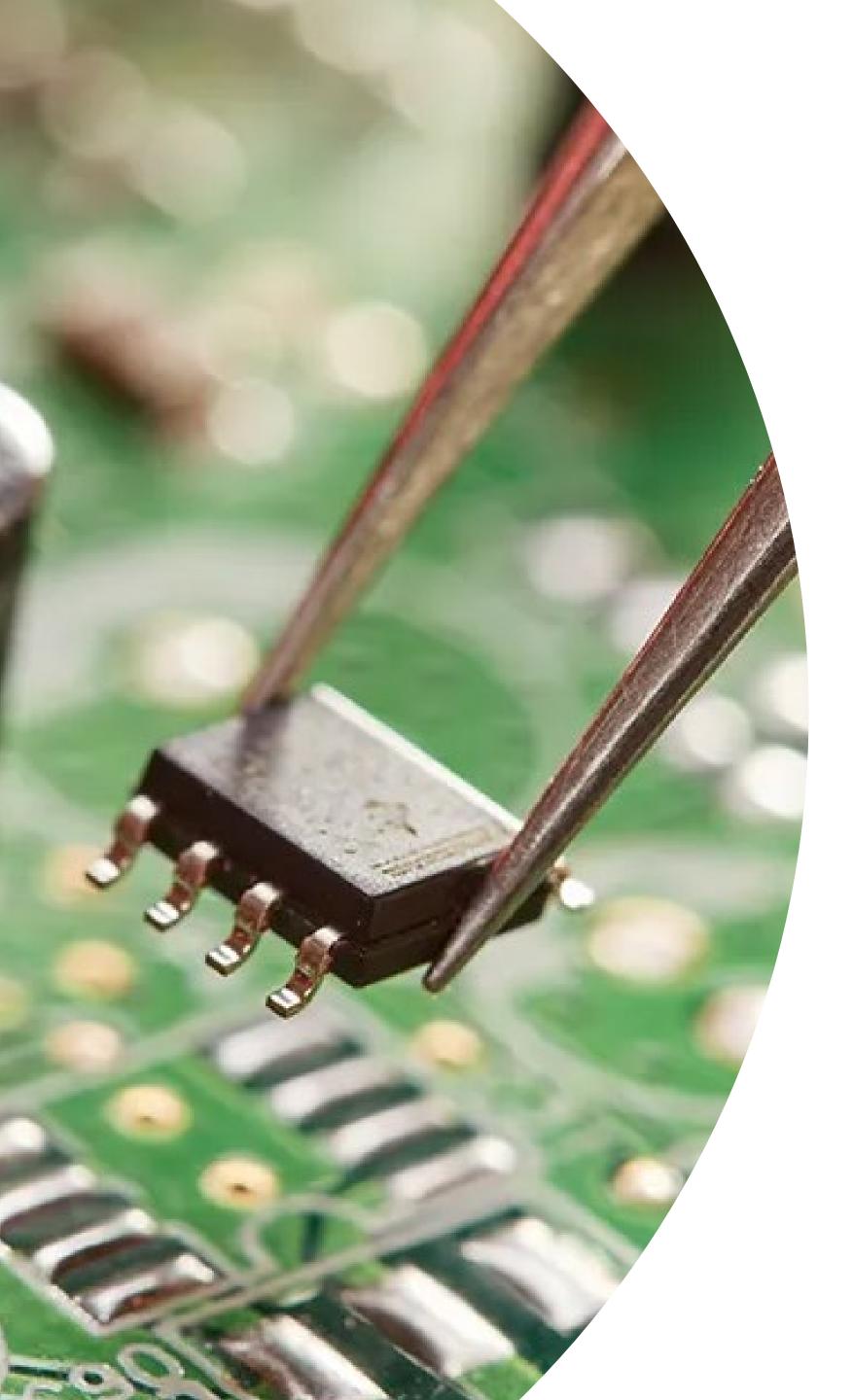
Illegal logging, and the trade in illegally logged timber, is a domestic, regional, and global issue. It has negative economic, environmental, and social impacts, including—but not limited to—forest degradation, loss of traditional homelands for Indigenous and tribal communities, and the creation of unfair market conditions that disadvantage legal and sustainable sources of wood and wood products. This project will deepen the knowledge of the extent, risks, and awareness of illegal logging within the forest product supply chains of each country. This project will aim to increase the understanding of wood product consumers and how they can support sustainable forest management and contribute to the fight against illegal logging through their purchasing power, and by purchasing responsibly produced wood products. The project will also encourage the use of key mechanisms for civic participation in environmental protection to address citizen complaints and by informing consumers of the consequences of purchasing illegal timber.

The implementation of Activity 1 officially began in 2024, with the collaboration between the CEC and the JPAC evaluation committee to prepare the guidelines for the review of existing literature and programs, as well as the analysis of consumer knowledge across the three countries. Click here for more information about the initiative.

Progress update and notable results:

• In December 2024, Activity 1 was launched to identify the current trinational context for sustainable forest management (SFM), illegal logging, forest law enforcement, third-party certifications, and consumer awareness.





Opportunities for Circularity in the North American Electronics Sector: Phase 1

Budget and duration: C\$750,000 24 months (June 2024–June 2026)

Linear models of economic production and consumption place a high demand on natural resources and accelerate environmental degradation. This, in turn, translates into increased business risks through higher costs, as well as supply uncertainties and disruptions. In CEC's 2021–2025 Strategic Plan, the Parties acknowledged that: "Shifting toward sustainable production and consumption patterns is about improving the management and efficient use of materials and resources. This shift opens the door to new economic and environmental opportunities, as well as securing a more sustainable and resilient economic future for our citizens." Furthermore, they agreed upon "Circular Economy and Sustainable Materials Management" as a strategic pillar of CEC work. Accordingly, in the 29th CEC Council Session, the Parties announced the intention to undertake work to support enhanced uptake of circular economy approaches with sustainable production and consumption patterns in North America. The electronics sector has now been selected as the focus of this first CEC initiative on Circular Economy because of the high interest from North American consumers and because it lends itself well to advancing the North American conversation on circularity and raising awareness of circularity and its socio-economic and environmental benefits in the region.

In 2024, the CEC developed and started implementing a workplan to study the potential for circularity in the electronics sector (with a particular focus on cell phones) in Canada, Mexico and the United States and identified opportunities to foster circularity in North America. The CEC also focused on finding options for regional cooperation and raising awareness on the socio-economic and environmental benefits of shifting toward sustainable production and consumption patterns and toward a more circular economy. Click here for more information about the initiative.

- The design of the initiative was finalized, and implementation of the initiative began.
- To study the potential of circularity in the electronics sector in North America, focusing on opportunities related to design, innovation, sustainable production, efficient use of resources, reuse, repair, refurbishment, and remanufacturing, while highlighting "bright spots," case studies and lessons learned for Canada, Mexico and the United States' economies, the CEC conducted a series of interviews with key actors working on circularity in the electronics sector and ran a design-focus workshop with the initiative's Steering Committee.
- The 2024 results set the stage to continue, in 2025, the development of a research study that will offer relevant context and considerations for the advancement of circularity in the electronics sector in North America and the outline of potential options/opportunities for cooperation to enhance the upstream circularity of the electronics sector across the region.

Reaching Horizon 2030: An Environmental Outlook for North American Cooperation

Budget and duration: C\$500,000 23 months (April 2024–February 2026)

The initiative Reaching Horizon 2030: An Environmental Outlook for North American Cooperation (H-2030) will assess significant regional environmental challenges to 2030 that can be addressed through the CEC, providing critical information and input for the development of the CEC Strategic Plan 2026–2030. The H-2030 report to be developed through this initiative is expected to also serve as a strategic guidance document and data resource for policy makers, organizations, academia and other key actors in North America and other regions to inform research, policy and action.

In 2024, the CEC began trilateral cooperative work under this initiative, hosting a series of meetings, including a public forum hosted by JPAC, to receive input for the development of the H-2030 report. Click here for more information about the initiative.

- In December 2024, Activity 1 was launched to identify the current trinational context for sustainable forest management (SFM), illegal logging, forest law enforcement, third-party certifications, and consumer awareness.
 - o The CEC engaged government experts in collaborative discussions to define sub-topics and potential pilot projects under each of the three priority areas of the H-2030 initiative:
 - Earth Observation Technologies and Other
 Geographic Information System (GIS) Tools
 - Sustainable Transportation
 - Ecosystem Services / Sustainable Use and Management of Biodiversity
 - o The public, including Indigenous, private sector, NGOs, and subnational government representatives were invited to provide their perspectives on the Horizon-2030 priority topics during the JPAC Public Forum on Reaching Horizon 2030: An Environmental Outlook for North American Cooperation that was hosted in Mexico City, on 4–5 December 2024.





Fast Mitigation Strategies for Short-Lived Climate Pollutants

Budget and duration: C\$400,000

18 months (September 2024–February 2026)

Methane is a short-lived climate pollutant (SLCP) and a potent greenhouse gas. At the 2023 North American Leaders Submit (NALS), Canada, Mexico and the United States recognized "the urgency for rapid, coordinated and ambitious measures to build clean energy economies and respond to the climate crisis" and committed to "reduce methane emissions from the solid waste and wastewater sector by at least 15% by 2030 from 2020 levels and deepen collaboration on waste and agriculture methane measurement and mitigation," including achieving the Global Methane Pledge. Accurate quantification of methane emissions is crucial for driving and ensuring sound emissions reductions strategies. Remote sensing technologies have emerged as valuable tools to improve methane emission measurements and close data gaps. This project will explore the use of these technologies to enhance methane emissions inventories and effective mitigation actions in the waste sector.

In 2024, the CEC developed the project work plan, which aims to provide actionable recommendations for improving methane emission quantification, measurement approaches, and inventories in North America. Project implementation phase is to begin in January 2025. Click here for more information about the initiative.

Progress update and notable results:

• The CEC worked in the development of the project work plan.

Cooperative Work under Design during 2024

The CEC's cooperative work program includes both core projects and Council initiatives. Core projects are multi-year cooperative projects funded from the annual contributions of the three Parties and focused on addressing key areas for cooperation under the six strategic pillars for 2021–2025. Council initiatives are generally funded through accumulated surplus funds and announced annually by the Council at the annual Council Session. These new Council initiatives are often designed to address the theme of the Council Session or other emerging regional priorities.

Council-supported Initiatives

- Community-led Environmental Education Initiative for Biocultural Heritage Protection
- Climate Change Adaptation Initiative: Enhancing North American Procedures for Communication of Drought Information
- Approaches to Inclusive, Urban Climate Adaptation and Resilience
- The North American Environmental Justice Action Center (NAEJAC)

Core Projects

- Strengthening capacity to ensure efficient operation of the Notice and Consent Electronic Data Exchange (NCEDE) system and other wastes controlled by the three countries
- Sharing Best Practices for Environmentally Sound Management of Used Lead Acid Batteries
- Using the World Cup and Large-Scale Events to Raise Awareness aiming to educate the public on food waste reduction via the biggest sporting event in history.
- Strengthening Evidence-Based Collaborative Monarch Butterfly Conservation



Providing Tools for Decision-making

North American Pollutant Release and Transfer Register (NAPRTR)

Supporting the 2021–2025 strategic pillar, *Clean Air, Water, and Land*, the North American Pollutant Release and Transfer Register (NAPRTR) Initiative compiles, harmonizes and presents data on the sources, amounts and management of pollutants reported by approximately 40,000 industrial facilities to the Canadian, Mexican and US pollutant release and transfer registers (PRTRs). These data are made accessible via the *Taking Stock Online* website and searchable database, as well as through analyses in the *Taking Stock* report series. They are used by governments, industry, researchers, NGOs and the public to explore and better understand the releases and transfers reported by North American facilities, their risks, and related pollution prevention efforts.

In 2024, the CEC updated and integrated the 2006–2022 dataset in Taking Stock Online and began incorporating draft 2023 data, including a new "Explore greenhouse gas (GHG) data" tool that allows users to access facility-specific GHG data to help complete the air emissions profiles of reporting facilities. With the aim of developing effective strategies to enhance North American PRTR data comparability, an assessment of data comparability gaps and issues, along with the processes involved in modifying national reporting requirement for substances and sectors, was conducted. A second phase of this work, involving interviews with the national PRTR programs, will be undertaken in 2025. The CEC continued work on a pilot project undertaken in collaboration with OECD's Working Group on PRTRs, developing a survey of member PRTR programs to validate the data for source and recipient facilities involved in cross-border transfers. The survey results are expected in 2025. The CEC finalized its "Pollution Prevention (P2) Challenge" report on the assessment of P2 information reported by facilities in the North American automotive manufacturing sector and supply chain and began work on a second phase, which involves engaging sector representatives and other experts in sharing information and ideas about how to improve the quality, completeness, and usefulness of P2 information.

- The CEC implemented and published data updates for the 2006–2022 period, with reviewed trinational data for 2023 and a new "Explore Greenhouse Gas Data" tool to be published in Spring 2025.
- The CEC completed a North American PRTR data comparability assessment and developed a related questionnaire for interviews to be held with the national PRTR programs in 2025.
- The CEC developed a survey questionnaire for OECD member PRTR programs relative to validating the data quality for source and recipient facilities of crossborder transfers, with results expected in 2025.
- The CEC continued discussions with the North American PRTR officials regarding data quality and comparability and provided information to support Mexico's review and update of the RETC program.
- The CEC finalized the assessment report for the "Pollution Prevention (P2) Challenge" involving the automotive manufacturing sector and supply chain and began engaging sector representatives and experts to improve the quality and usefulness of P2 information.

North American Environmental Atlas

The North American Environmental Atlas is an online mapping resource providing combined and harmonized geospatial environmental data from Canada, Mexico and the United States, allowing for a continental and regional perspective on transboundary environmental issues. Downloadable North American map layers can also be examined through an online map viewer, allowing the visualization of various environmental aspects, such as terrestrial and marine ecological regions, climate zones, as well as protected areas across the three countries. The Atlas supports a wide range of governmental and academic research and analysis of environmental challenges in North America, as attested by citations in over a thousand published scientific articles and reports. The Atlas supports CEC's Strategic Plan 2021–2025 by providing geospatial information that can be associated to all strategic pillars. New and updated thematic map layers are often based on data generated by CEC initiatives/projects. The Atlas is available here.



North American Land Change Monitoring System

The North American Land Change Monitoring System (NALCMS) is an ongoing collaborative initiative between the CEC and the governments of Canada, Mexico and the United States and their respective mapping agencies to monitor land cover and its changes over time at the North American level. Land cover refers to the classification of surface cover on the ground, whether forest, urban infrastructure, bodies of water or agricultural land, etc., which helps to distinguish between natural and anthropogenic features. The NALCMS products, available in the North American Environmental Atlas, depict information about land cover and land cover change in a seamless and consistent way across North America by assembling and harmonizing national geospatial datasets. Specific information about NALCMS is also available here.

- The CEC organized and facilitated in January 2024 the annual meeting of the North American Land Change Monitoring System (NALCMS) initiative in Aguascalientes, Mexico.
- All NALCMS land cover datasets at 30m resolution have been updated in 2024 with the most up-to-date and accurate classification methodology to enhance comparability over time.
- The CEC presented in March 2024 the North American Environmental Atlas at the USGEO meeting, a group of United States federal government agencies involved in Earth Observations & geospatial data, as part of the international Group on Earth Observations (GEO) network.
- The CEC presented in April 2024 the North American Environmental Atlas to AmeriGEO, a regional group of international organizations and federal agencies of countries involved in Earth Observation & geospatial data in the Americas (North, Central, South, and Caribbean), as part of the international Group on Earth Observations (GEO) network.

- The CEC updated and published in August 2024 the Atlas geospatial dataset of "North American Roads," an important reference layer when analyzing ecosystems and habitats fragmentation or working in disaster risk management.
- The CEC created and published in August 2024 the new Atlas map & dataset of "North American Landfills," a first inventory of landfills and dumps across North America, including an interactive map allowing viewers to visualize and contextualize the location of landfills with satellite imagery, useful when analyzing potential environmental and climate impacts.
- The CEC presented in November 2024 the North American Environmental Atlas at Future Earth's Global Land Programme (GLP)'s 5th Open Science Meeting (OSM) in Oaxaca, Mexico, where the CEC networked with international researchers and practitioners focusing on land systems.
- The CEC also created map products to support other CEC programs and initiatives:
 - o Online map portal for the Communities for Environmental Justice Network (CEJN) project.
 - o Map visualizations for SEM, NAPECA, EJ4Climate, and Monarch Blitz outreach activities.



Outcomes of Joint Public Advisory Committee (JPAC) Activities

In 2024, JPAC focused its efforts on increasing collaboration with the other CEC constituent bodies and the CEC's Traditional Ecological Knowledge Expert Group (TEKEG), and on the development of the JPAC-led initiative: Advancing Responsible Purchasing of Wood Products. Please find more information about JPAC here.

JPAC's areas of focus included:

- Trade and Environment Promoting dialogue and knowledge sharing between the Parties and private sector representatives, on environmental issues of common interest, and exploring opportunities to network with other organizations.
- Climate Crisis Increasing public dialogue and engagement in North America on climate change mitigation and adaptation through JPAC events.
- Water Providing support to the TEKEG, in the final phase of the project Indigenous Approaches to Freshwater Management in North America.
- Addressing the important topic of inequity, by responding to the unique challenges and opportunities faced by marginalized and disadvantaged groups and individuals, throughout their forums.

To achieve this, JPAC accomplished the following activities:

- Held three closed working sessions
- Actively participated in the dissemination and promotion of CEC meetings.
- Submitted three Letters of Advice to Council
- Organized two public consultations
- Initiated the implementation phase of the JPAC-led project Advancing Responsible Purchasing of Wood Products, after obtaining approval from the Parties

- TEKEG and JPAC members participated in the CEC's Youth Engagement Week Meeting on 18 January.
- The JPAC Chair participated in the EJ4Climate and NAPECA Selection Committee Meetings, to provide his top proposals from the three countries which he considered were more closely aligned with the respective themes.
- The JPAC Chair provided an update on the development of the JPAC 2024 Annual Plan of Activities during a virtual Alternate Representatives Meeting on 9 February, noting that a strong emphasis was going to be made on increasing collaboration with TEKEG, as well as with key actors in the region, particularly underserved communities that are grappling with environmental justice issues.

- JPAC members participated in the roundtable organized by the TEKEG on North American Traditional Ecological Knowledge Principles on 21–22 March. They exchanged their thoughts on the significance of developing North American TEK Principles and discussed ways that JPAC can support this endeavor.
- JPAC submitted three Letters of Advice to Council, on

 (1) community-based conservation of freshwater resources;
 (2) on new CEC Project Community-led Environmental Education
 Initiative for Biocultural Heritage Protection following a three-weeks public consultation; and (3) on environmental justice.
- JPAC conducted an online public consultation on the new CEC Project: Community-led Environmental Education Initiative for Biocultural Heritage Protection, from 4 to 25 March. 69 participants sent comments through the public consultation: 11 from Canada, 42 from Mexico, 13 from the United States and 3 from other countries.
- JPAC initiated the implementation phase of the JPAC-led project Advancing Responsible Purchasing of Wood Products.

 JPAC members established a subcommittee that will provide feedback throughout the implementation of the initiative, reviewed corresponding materials, and performed other relevant tasks included in the project description.
- JPAC held a public forum on December 4-5, in Mexico City under the theme: "Reaching Horizon 2030: An Environmental Outlook for North American Cooperation (H-2030)."

Engagement and Community Action

Inclusive and Diverse Engagement

In 2024, the CEC managed activities aimed at simultaneously ensuring sustained engagement and strengthened relationships with key actors and collaborators, while developing and maintaining partnerships as well as expanding the CEC's engagement with underrepresented and historically marginalized groups and communities. The CEC also aimed to increase visibility, raising awareness of key environmental issues, and enhancing the CEC's unique role in facilitating collaboration; and continued to seek and implement innovative and inclusive approaches for the creation of synergies and fostered the identification and undertaking of collaborative opportunities. The CEC developed and implemented more awareness and behavior-change campaigns, co-hosted events and explored new and innovative approaches for diverse and inclusive engagement, with a particular focus on Indigenous leaders, the youth sector, environmental justice actors, members of the 2SLGBTQIA+ community and key actors in the private sector. Partnership opportunities and engagement activities both in person and online included roundtable discussions on key issues, collaborative events, videos, joint activities and statements with key partners and partnership agreements to promote regional and global discussions. These efforts aimed to recognize the value of collaboration and partnerships and strengthen knowledge sharing and the commitment to leverage efforts to support key environmental topics. The CEC identified opportunities for partnerships to support the implementation of regional and international frameworks, for increased visibility and engagement at regional and international events and to position the North American region as a leader on environmental topics.

- The CEC led public engagement strategies for CEC events (e.g., CEC31, JPAC forums, Food Waste Prevention Week, Communities for Environmental Justice Network (CEJN), Marine Litter project), engaging over 14,000 people over the year.
- The CEC participated in a webinar with the Canadian Wildlife Federation (CWF) on monarch conservation and the Monarch Blitz.



Working session with youth.

- The CEC participated in Canada Plastic Action Zone during INC-4 to increase visibility of the CEC and in particular to share CEC's tools on marine litter and community engagement.
- The CEC coordinated a partners' social media campaign as part of the CEC's 30th anniversary celebration highlighting CEC partners and increasing the visibility of CEC's role in facilitating collaborations and partnerships.
- The CEC organized a field trip inviting International Organizations based out of Montreal to get to learn more about the CEC and its work.
- The CEC supported the launch of the Environmental Education initiative and the public consultation for the Horizon-2030 initiative.
- The CEC coordinated the eighth edition of the International Monarch Monitoring Blitz with 9 partner organizations from the North American countries, including the incorporation of the Canadian Wildlife Federation (CWF) as a new partner. This year, results from the initiative showed an increase in number of participants (5,798) and observations of monarch butterflies, eggs, caterpillars and chrysalises (11,647) compared to last year. This ongoing partner initiative continues to highlight CEC's key role in promoting community science in North America and the value of long-lasting partnership efforts.
- The CEC expanded CEC's audience through targeted research on key sectors and actors and through the maintenance of a key actors database (Borealis) which currently contains over 10,000 contacts. The understanding, assessment and expansion of CEC's audience is an ongoing effort.

- The CEC developed a series of evergreen outreach materials that highlight CEC's work across all units, including videos that showcase CEC's collaborators and youth engagement efforts throughout the years, materials to showcase CEC's work in events (Unit specific foamboards, 30 years of monarch conservation and youth engagement). There is a constant adaptation of outreach materials for different audiences and events.
- The CEC strengthened its partnerships with the University of Waterloo, UN Environment Program North America region and the UN Convention for Biological Diversity (CBD), co-organizing an official side-event event at COP16 in Cali, Colombia, and began collaborating with the University of Sherbrooke, Colegio de la Frontera Sur-Ecosur, McGill University, Mila – Quebec Artificial Intelligence Institute and the Pan American Health Organization (PAHO). The CEC has also strengthened its relationships with other Montreal-based international organizations through Montreal International. There is a sustained effort to maintain all partnership relations and look for opportunities to leverage efforts.
- The CEC supported the identification of speakers and attendees to events based on target audiences of events.
 The expanding network allows a continuous identification of new speakers and attendees to all events.
- The CEC increased partners and collaborators visibility in showcasing their contributions to CEC's work (Voices of our collaborators video, Youth Engagement video and the new partnership webpage which will be updated on a regular basis)

- The CEC managed capacity building efforts in organizing knowledge sharing efforts through the Brown Bag Lunch Series on various topics: INC4, AI and environmental issues, CEC work: Atlas, Indigenous Protocol, Just Transition, etc. New topics have already been identified for an ongoing series.
- The CEC engaged in regional events and brought its tools to new audiences such as the Future Earth's Global Land Programme (GLP)'s 5th Open Science Meeting (OSM) in Oaxaca, Mexico. Ongoing efforts to increase the visibility of the CEC are continuously assessed.
- The CEC supported the dissemination of grant programs to increase engagement and will continue to do so in the following years.
- The CEC supported collaboration efforts on Al, Youth Engagement, TEK and environmental issues. Efforts to identify and assess new efforts with partner organizations is ongoing.
- The CEC supported the dissemination of request for proposals, reports and CEC information and will continue these efforts to increase CEC visibility and the expansion of its network.

Traditional Ecological Knowledge

The Traditional Ecological Knowledge Expert Group (TEKEG) provides advice to the CEC on integrating traditional ecological knowledge and Indigenous perspectives into the CEC's work and policy recommendations. Please find more information about the TEKEG here.

In 2024, the CEC completed the four activities of the TEKEG-led project on Indigenous Approaches to Freshwater Management in North America. This project included three case studies, one from each country, in collaboration with the Neets'aii Gwich'in Tribal Government, the Bécal Ejido in Campeche and the Manitoba Métis Federation. The CEC began the implementation of a project on the Resilience of Indigenous People's Traditional Food Systems, and developed TEK principles that will serve as guidelines and minimum standards for how the CEC collaborates with Indigenous Peoples and Traditional Ecological Knowledge. The TEKEG advised the Council to consider the Indigenous dimensions of environmental justice and increase the CEC's capacity to elevate Indigenous Peoples' voices in environmental management.





Indigenous-led ceremony at CEC event.

- The TEKEG met with the Secretariat in March 2024 to address pending deliverables in the Indigenous Approaches to Freshwater Management in North America project and to discuss the importance of having TEK Principles for the CEC.
- The TEKEG convened a meeting with Indigenous policy experts (1-2 per country) in March 2024 to seek advice on developing the TEK Principles.
- The TEKEG drafted and approved the North American Guiding Principles on Traditional Ecological Knowledge and shared them with the Secretariat and the Parties in June 2024.
- Following the Council Session, the TEKEG met to discuss and develop advice to the Council on their session's topics, themes and outcomes. The TEKEG advised Council to consider the Indigenous dimensions of Environmental Justice and supported increasing CEC capacity to elevate the voices of Indigenous Peoples in environmental management.

- The Indigenous Affairs Officer, accompanied, at times, by a member of the TEKEG, participated in the design team activities for the Environmental Education Initiative, and provided regular updates to the full membership of the TEKEG. The TEK Expert Group is expected to be more actively involved in the project implementation.
- A member of the TEKEG from Mexico participated in the in-person gathering in Puebla, Mexico, to provide advice and share insights with the Indigenous partners and meeting participants, during the implementation phase of the Air Quality Monitoring Project. The inclusion of the TEKEG member strengthened the dialogue and highlighted the role that the CEC can play in supporting Indigenous communities in environmental management.



Youth environmental leaders at working session.



Youth representatives and Environmental Justice Experts.

Supporting Youth Engagement

The CEC developed its 2024–2026 Youth Engagement Strategy (YES) and its implementation plan. Additionally, the CEC also launched the second edition of the Generation of Environmental Leaders Program (GELP). The CEC also hosted its second annual Youth Engagement Week, which included an online workshop and a roundtable led by three youth environmental leaders. This event provided a unique opportunity for youth in North America to contribute actively to CEC's work through the JPAC public consultation mechanism and the JPAC forum focused on the H-2030 initiative. The three youth facilitators participated at the JPAC forum in a youth-focused session. Click here for more information on youth engagement.

- The CEC launched the 2024–2026 Youth Engagement Strategy and implementation plan.
- The CEC received a total of 129 solutions for the 2024 Generation of Environmental Leaders Program.
- The CEC participated in the International Youth Conference 9th edition.
- The CEC celebrated the International Day of Women and Girls in Science and International Youth Day through a newsletter that highlighted the initiatives from some youth within our network (past Youth Innovation Challenge winners), as well as CEC's youth engagement efforts.
- The CEC supported the development of a Youth-focused event at the Council Session and promoted youth engagement.
- The CEC supported the Youth-focused session during the JPAC forum on Horizon 2030.
- Youth actively participated in the JPAC Consultation of Horizon 2030.
- The CEC celebrated the International Youth Day, by celebrating the Youth Innovation Challenge success and other youth engagement efforts.

North American Partnership for Environmental Community Action

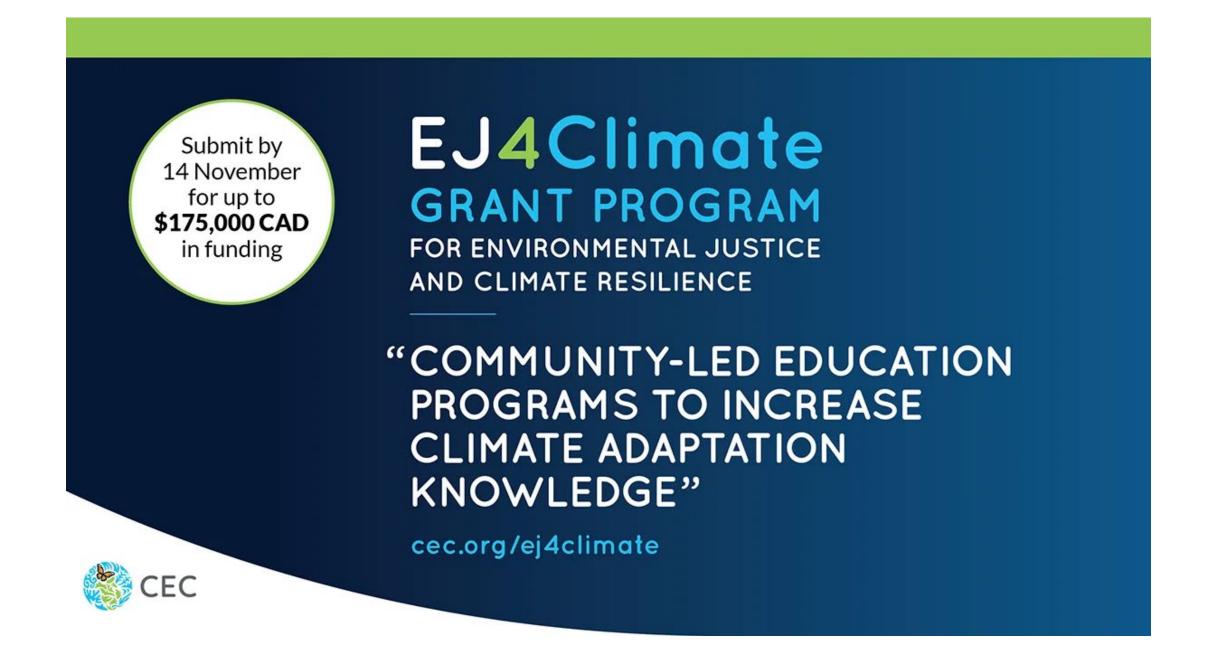
The North American Partnership for Environmental Community Action (NAPECA) is a CEC biannual grant program that engages and supports local and Indigenous communities in addressing pressing environmental challenges. More information is available here.

In 2024, the CEC concluded the implementation of eight projects funded under the previous grant cycle (2022–2024). In November 2023, the CEC launched its 7th NAPECA grant cycle (2024–2026), calling for project proposals that involve and empower Indigenous Peoples and communities, and enhance climate adaptation by respectfully applying and protecting Indigenous Knowledge systems.

- The CEC concluded the implementation of the 15 projects funded under the inaugural grant cycle (2021–2022).
- The CEC received 285 proposals for NAPECA cycle 7.
- The CEC <u>announced the 10 NAPECA grantees</u> for cycle 7 on June 2024.
- Evidence of the impact of selected projects can be offered upon request.



EJ4Climate Grant Program: Environmental Justice and Climate Resilience



Since September 2021, the CEC has been implementing EJ4Climate, an annual grant program to support underserved, vulnerable, as well as Indigenous communities across North America, to increase preparedness and resilience for climate-related impacts. The EJ4Climate Grant Program provides funding directly to community-based organizations and seeks to promote environmental justice by facilitating the involvement and empowerment of communities searching for solutions to environmental challenges and the development of partnerships to address their environmental and human health vulnerabilities, including those due to climate impacts. More information is available here.

- All projects (15) funded under the inaugural grant cycle were completed.
- Projects funded under EJ4Climate cycle 2 continued.
- The CEC received 244 proposals for EJ4Climate cycle 3 and 13 projects were selected to receive grants in May 2024.
- The CEC launched the Call for Proposals for EJ4Climate cycle 4 in September 2024, focused on "Community-led education programs to increase environmental justice and climate adaptation knowledge."
- Six grantees were engaged in-person as speakers at the 2024 Council Session during the June 26th presentation on CEC's work on EJ.
- A CEC staff member visited two projects in Canada and the US.
- Evidence of the impact of selected projects can be offered upon request.

Submissions on Enforcement Matters Process (SEM)

Submissions on Enforcement Matters

The CEC Submissions on Enforcement Matters process supports public participation and transparency in the effective enforcement of environmental law in North America.

If you have reason to believe that an environmental law is not being effectively enforced by Canada, Mexico or the United States, the SEM process may address your concerns.

To learn more

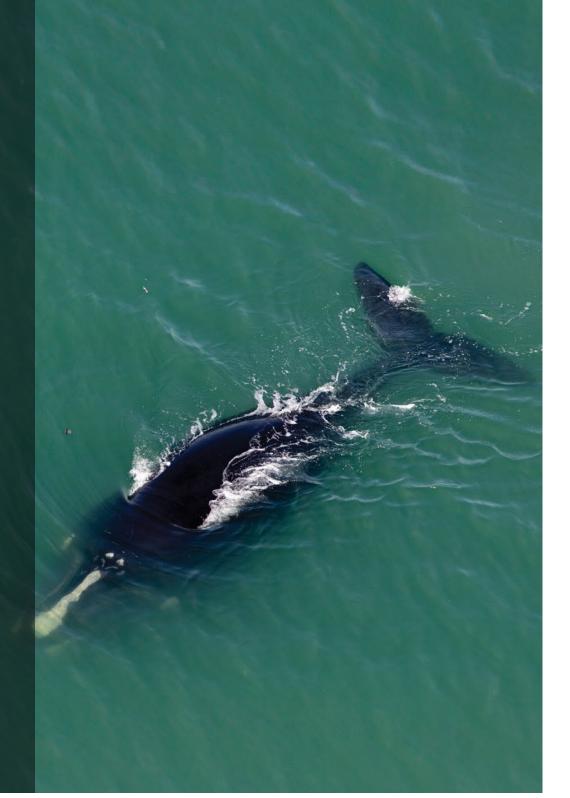
SEM process,

about the

scan here.



cec.org



The Submissions on Enforcement Matters (SEM) process, which was originally created under the former North American Agreement on Environmental Cooperation (NAAEC), is now governed by Articles 24.27 and 24.28 of the United States-Mexico-Canada Agreement (USMCA/CUSMA/T-MEC). The SEM process allows any person in North America (resident, citizen, business company or entity) to file a submission asserting that Canada, Mexico and/or the United States is failing to effectively enforce its environmental law(s). From 1994 to the end of 2024, the Secretariat received a total of 115 submissions: 34 concerning Canada, 65 concerning Mexico, 14 concerning the United States, and two concerning both Canada and the United States. From these submissions, 21 from Canada, 50 from Mexico, and 8 from the United States, met the initial admissibility requirements to move forward in the SEM process. Since 2020, the Secretariat has received 17 submissions: 2 from Canada, 14 from Mexico, and 1 from the United States (admissibility numbers of these, are as follows: 2 (100%), 12 (75%), and 1 (100%), respectively). Finally, the Secretariat has published 27 factual records⁵ to date.

5. A factual record is a type of investigative report that includes technical, scientific, and legal information as well as interviews with government officials and analysis from independent experts. It documents the environmental, legal, and/or public health aspects of the situation. For more information visit here.

In 2024, the CEC received three new submissions and continued to process ten others. In two instances, the Secretariat determined that the submission met the criteria in CUSMA Article 24.27(2) and requested a response from the government per Article 24.27(3). The Secretariat concluded action on two submissions due to admissibility issues: Cadereyta Refinery and Time Ceramics. The Secretariat informed the Council that one submission warranted developing a factual record: Vessel Pollution in Pacific Canada. The Secretariat published a factual record for the Loggerhead Turtle submission and began preparing a factual record for the Vaquita Porpoise submission. The Secretariat developed a factual record for the Hydraulic Fracturing in Nuevo León submission, the last active submission under the NAAEC, and presented the final factual record to Council.

The three submissions filed in 2024 relate to Mexico's alleged failure to enforce its environmental laws (i) to regulate air emissions from a refinery near Monterrey, Nuevo León; (ii) to protect forests and water resources from the impacts of a ceramics factory in Hidalgo; and (iii) to assess the environmental impacts of a railway project in Sonora. More information is available here.

- 3 new submissions filed at the CEC.
- 6 determinations issued, including one factual record recommendation.
- 1 draft factual record submitted to Council.
- 1 final factual record submitted to Council and released to the public.
- 2 draft factual records in progress.
- 100% of target deadlines met by the Secretariat.
- 9 events where SEM was presented (including CEC and non-CEC events). These presentations to approximately 300 participants aimed to raise awareness on the mechanism among different audiences, explain its functioning, provide status updates on active submissions, exchange challenges and best practices with other regional actors and discuss the role of SEM in advancing legal and social priorities such as environmental justice.





CEC Communications

In 2024, the CEC shared and disseminated its work by expanding communications with target audiences on trilateral priorities through CEC publications, media releases, more frequent newsletters, new audiovisual products, participation in events, more robust social media and by utilizing emerging regional and international opportunities. The CEC also enhanced visibility, public awareness and understanding of the CEC's work and role in environmental cooperation and public participation, continued to modernize access to information for decision-makers and interested individuals and groups that can make a difference with their actions, showcasing CEC's work in national and international fora.

- Media hits: 3,453
- Media reach (potential): 2.61 billion total potential views (via industry-leading media monitoring company)
- Media reach (likely): 65.15 million likely traditional media views (using standard 2.5% of total potential reach)
- The estimated ad value equivalent: US\$24,105,721
- CEC website visits: 1,036,876 unique page views; 56,010 returning users
- Social media followers: 61,000+
- Social media impressions: 5+ million
- Unique social media engagements: 10,000+
- Average newsletter open rate: 30%

Administration and Management

The CEC promoted sound financial management, recruitment and training to foster a diverse workplace, building team member skills, updating corporate policies, strengthening its information technology (IT) systems and resilience, streamlining Meeting Services and launching an Office Sustainability Policy.

Progress update and notable results:

Financial Management

- Implemented a Protocol for Payments to New Vendors and Changes of Payment Instructions to lower the risk of the CEC falling victim to cyber bank fraud and addressing any activity from phishing emails and other fraudulent cyber actions.
- Provided quarterly financial reports to the Council and worked to limit variances.
- Continued improving efficiency of its payroll system and maintained internal operating costs stability.

Human Resource Management

- The CEC achieved high-level recruitment and supported employee development:
 - o Recruited new high-caliber and seasoned professionals, including a SEM and Legal Affairs Officer and an Environmental Justice Officer.
 - o Supported youth engagement and promoted young professional capacities by hosting two fellows and seven interns to advance the mandate of the Executive Director, support the TEKEG, as well as the Green Growth, Communications, and the SEM and Legal Affairs units.
 - o Supported employee development and held staff training on "Resolving conflicts with constructive conversations."
 - o Continued offering language training to improve communications with key actors and better integrate our CEC team into local life.
 - o Undertook a benchmark review of the CEC salary structure (it was last carried out in 2021).
 - o Developed the Guidelines for the CEC Internship Program.
 - o Continued enhancing the onboarding plan and developing handout material to ensure managers and new employees have a better understanding of the Secretariat's values, their accountabilities and CEC operations.
 - o Conducted a staff-led participatory work values exercise to build team collaboration

Information System Infrastructure

- Updated and maintained the CEC's IT tools that support the projects, the interactive platforms, the website, and other operational systems.
- Updated the office network infrastructure and initiated a hardware refresh cycle for workstations.
- Updated the back-end software that supports the ERP solution.
- Implemented multifactor authentication to improve the security for our Microsoft cloud accounts.

Meeting Services

 Developed tools to plan meetings with more anticipation and closer budget monitoring to contain costs.

Office Sustainability

 The Evergreen Committee worked on the development of an Office Sustainability Policy to promote sustainability in all aspects of CEC operations in Montreal and minimize as much as possible the social and environmental impact and footprint of its activities.

Planning, Measuring Performance and Reporting on Progress

As stated in the Strategic Plan 2021–2025, the implementation of a performance measurement framework is a means by which the CEC can demonstrate progress in meeting the organization's environmental goals and objectives. The framework promotes CEC's commitment to transparency, excellence, collaboration, inclusiveness and integrity through enhancing the CEC's performance, accountability and reporting ability. It also represents a monitoring mechanism by which it becomes possible to integrate responsive feedback to re-direct and sharpen actions as needed.

The planning and performance framework activities at the CEC are powerful mechanisms to strengthen environmental governance. Evaluation of the CEC's work must also account for the various tangible and intangible benefits generated from its focus on public participation and engagement with key actors. Throughout 2024, the CEC pursued planning, monitoring and reporting activities including the development of a long-term impact assessment on the CEC's work on migratory birds from 2015 to 2019. Please find more information about the CEC's planning and performance framework here.

- The CEC updated its organizational and strategic key performance indicators.
- The CEC published a LTIA executive summary on <u>CEC's</u>
 Work on Stimulating Uptake of ISO 50001 Energy Efficiency
 Standard (2015–2018).
- The CEC published a LTIA executive summary on CEC's Work on Addressing the Impact of Extreme Heat Events (2015–2018).
- The CEC published a LTIA executive summary on CEC's work to support the Local Environmental Observer (LEO) Network (2015–2016).
- The CEC defined new overarching KPIs that will be added to Our Impact website in 2025.
- The CEC published its CEC's Annual Report 2023.
- The CEC prepared seven close-out reports for projects and initiatives that ended in 2023 and 2024.
- The CEC periodically reported on the development and implementation of CEC's cooperative work.
- The CEC published its Operational Plan 2024.

2024 Expenses*

DELIVERABLES

Cooperative Projects	2,230,033
Grant Programs	3,787,901
Submissions on Enforcement Matters	401,884
Tracking Pollutant Releases and Transfers in North Ame	ica (PRTR) 202,335
CEC Interactive Platforms	136,542
	TOTAL DELIVERABLES 6,758,695

INSTITUTIONAL SUPPORT AND MAINTENANCE

Council Support	381,351
JPAC Support	282,389
TEK Expert Group Support	87,541
Communications	376,753
Stakeholder Engagement and Partnership Development	343,937
Information System Infrastructure Maintenance	157,367
Strategic and Operational Planning	109,964
TOTAL INSTITUTION	ONAL SUPPORT AND MAINTENANCE 1,739,302

ADMINISTRATIVE AND MANAGEMENT

	TOTAL ADMINISTRATIVE AND MANAGEMENT	5,948,696
Executive Director's Office and Mandate		195,478
Relocation/Orientation, Recruitment		83,415
External Administrative Support		407,088
Operating Expenses		756,399
Salaries, Benefits and Professional Development		4,506,316

TOTAL EXPENSES 14,446,693

Foreign exchange gain -1,307,214

EXPENSES 13,139,479

*Based on fiscal year audited financial statements.

(All figures in Canadain dollars)

