Introduction

The implementation of a performance measurement framework across all activities of the organization is a means by which the CEC can demonstrate progress in meeting the organization’s environmental goals and objectives and showing how, in the long term, these achievements have helped the three Parties in pursuing their national priorities. The framework also serves to enhance the CEC’s performance, accountability, and reporting ability. It also represents a monitoring mechanism by which it becomes possible to re-direct action to meet the set goals and objectives.

At this juncture, performance reporting is fully integrated in the operations of the CEC, and the Secretariat reports to the Parties on a regular basis, using meaningful and reliable data as evidence of results. A mid-term progress report was submitted to the Parties in June 2018 to show advances on project deliverables.

This executive summary provides the main highlights extracted from the OP 2017–2018 Performance Report, which offers an analysis of all performance measurement data collected between 1 July 2017 and 30 April 2019 towards meeting both the organizational and project-level performance objectives. It also includes a critical assessment of each project underlining positive or negative aspects that influenced project performance.

Our Work: Specific Performance of Projects and Ongoing Initiatives

Cooperative Projects

The Operational Plan (OP) 2017–2018 of the CEC included under its cooperative work ten trilateral projects designed to contribute to the three strategic priorities of the SP 2015–2020: climate change mitigation and adaptation, green growth, and sustainable communities and ecosystems.

Each project and ongoing initiative dedicated to information tools has specific performance objectives and measures that are reported on periodically. The performance measures include clear targets and reporting periods for each project objective, using a SMART (specific, measureable, achievable, relevant and time-bound) approach. This ensures the success of project implementation and monitoring, and contributes to the attainment of CEC strategic priorities. As mentioned above in the Budget section, project implementation has been affected since fall 2017 due to uncertainties surrounding the CEC 2018 budget and timeline.

Following is a summary of the measurable results from the ten projects:

Monitoring Health Impacts from Extreme Heat Events

- Three additional partnerships were developed with state and provincial health agencies in British Columbia, Canada; Juarez, Chihuahua, Mexico and Pinal County, Arizona, United states, serving hundreds of communities, to enhance their capacity to anticipate and prevent negative health outcomes from extreme heat events.

- Tools and lessons learned from the 2015–2016 pilot project were shared to expand capacity in communities and medical education organizations in North America to help healthcare
professionals anticipate, assess, and prevent negative health outcomes from extreme heat events.

**Reducing Pollution from Maritime Transport**

- A proposal for the establishment of an Emission Control Area (ECA) in Mexico, similar to those in Canada and the United States, was finalized and is under review by the Mexican government prior to its submission to the International Maritime Organization (IMO). The establishment of a Mexican ECA will allow for a common approach to controlling emissions from ships.
- Best practices were shared with key institutions in this sector to reduce emissions and achieve benefits relative to air quality, community health, environmental quality, ecosystems and climate in North America.
- Four background papers were published in June 2018 that help evaluate the impacts of ship emissions and provide technical guidance for collecting data and updating ship emissions inventories.

**Improving Black Carbon Emissions Inventories Data for Small-scale Biomass Combustion**

- Survey and data collection efforts were completed in the three countries and documented results were provided to the respective government agencies, in order to improve the accuracy of black carbon and PM$_{2.5}$ emissions inventories relative to small-scale biomass fuel combustion.

**Measuring and Mitigating Food-Loss and Waste**

- A practical guide and a technical report to measure food loss and waste for every segment of the food value chain in Canada, Mexico and the United States were developed.
- Two food waste measurement case studies were released in March 2019, one in Canada and one in Mexico, featuring TOKS Restaurants and Beau’s Brewery, two companies that have longstanding commitments to sustainability.
- A Food Matters Action Kit and its companion website were also developed to inspire youth to take action to prevent, recover and recycle food waste in their homes, schools, and communities. The toolkit was developed with the active support of 10 youth-based community associations, academic and educational institutions, the charitable sector, and Indigenous youth groups. Up to date, at least 30 clubs, schools, local communities and other youth organizations have been introduced to FLW learning and communication tools and resources.

**Increasing Industrial Energy Efficiency through ISO 50001**

- A training program and materials to build capacity on ISO 50001 in supply chains were developed and implemented in two North American Nissan supplier cohorts—including 11 facilities from 8 companies—to accelerate the uptake of energy management systems in the North American industrial sector.
- A guide on how to replicate this approach across all industrial supply chains was published and promoted.

**Supporting Sustainable Trade of CITES Species**


• Enforcement officers, government officials and key stakeholders from the three countries attended a shark fin identification workshop and three regional workshops to promote sustainable trade of tarantulas, turtles and tortoises, and timber priority species.

• Publications and reports produced included:
  o Identification guide of CITES-listed tarantulas to assist enforcement officers identify specimens in trade.
  o Report on the improvement of protocols for the formulation of Non-Detriment Findings for selected timber species
  o Report on catch and fishing efforts of CITES-listed shark fisheries in Mexico.

• The outreach campaign #WeLoveTarantulas was launched to promote public awareness on sustainable tarantula trade. Outreach materials developed included an animated video to convey the importance of supporting legal trade of CITES species. Broad media uptake helped elevate awareness on the issue.

Conserving Shorebirds through Community Engagement

• Five new community-based initiatives have taken place at the selected sites to engage communities in shorebird conservation inclusive of sustainable economic activities. Best practices on bird-related ecotourism were shared during workshops facilitated throughout this project; a series of educational brochures on developing bird-based tourism is in production, and local site promotional brochures were produced for outreach with local decision-makers at five sites. A bird tagging activity successfully placed 24 geolocator tags on Red Knots on their way to breeding grounds, enabling the collection of new data on Pacific flyway migration. Outreach material is in development, including a short video segment showcasing the values of shorebirds to communities along the Pacific flyway and interpretative signs for Pacific flyway sites.

Science for Monarch Butterfly and Pollinator Conservation

• A trinational work plan to coordinate monarch science was agreed upon. New research was supported, including: a first monitoring effort on monarch butterfly priority sites in northwestern Mexico; research on availability of nectar resources, key nectaring sites and lipid reserves of migrating monarchs in northeastern Mexico was supported; a first pilot project using LiDAR technique to estimate monarch populations at overwintering populations. Through a joint research project, natal origins of monarchs overwintering in central Mexico were identified. A trinational open source database for monarch butterfly and milkweed records in North America was launched. Two trinational monarch butterfly science workshops took place to discuss recent advances in monarch butterfly and pollinator research.

Strengthening Adaptive Capacity of Marine Protected Areas

• A coastal impact mitigation and adaptation toolkit was developed to provide practical guidance to communities and MPA practitioners to better address coastal vulnerabilities. Collaborative work plans for Pacific Coast MPA management were agreed-upon during two workshops, one for Canada-US sister sites and one for Mexico-US sister sites. The project also facilitated discussions about the governance, funding and future work of the North American Marine Protected Network (NAMPAN), leading to a new partnership with UN Environment. Outreach videos for the Rapid Vulnerability Assessment Tool (RVAT) and NAMPAN were produced.

Building Community Solutions for Marine Litter
Community stakeholders from selected pilot sites in two cross-border watersheds identified and implemented solutions to prevent and reduce land-based debris in each watershed. Outreach material, including videos and case studies, has been produced to describe the multi-stakeholder process and the actions implemented in each watershed, and to raise awareness on the marine litter issue.

**Tracking Pollutant Releases and Transfers in North America (PRTR)**

- Activities have proceeded as planned; however, the assigned budget constrains the potential to move beyond data compilation and presentation. With additional funding, more emphasis could be placed on stakeholder engagement activities and gauging the use of the data, particularly through industry partnerships, which would support our efforts to promote pollution prevention, a key objective of this initiative.

Budget expenditures from 1 July 2017 to 30 April 2019 are shown in the chart below as percentage of the total planned budget by project. While budget expenditures are not necessarily a reflection of performance, it can be noted that overall, 83.7% of the total two-year project budget was spent or committed to date. Project implementation has been affected since fall 2017, due to uncertainties surrounding the CEC 2018 budget and OP timeline.

**Ongoing initiatives**

The cooperative work also includes ongoing initiatives and interactive tools such as: Tracking Pollutant Releases and Transfers in North America (the North American PRTR Initiative and the *Taking Stock Online* tool); the North American Environmental Atlas; the North American Land Cover
Monitoring System (NALCMS); and the North American Portal on Climate Pollutants. The measurable results from these initiatives include the following:

**Tracking Pollutant Releases and Transfers in North America (the NAPRTR Initiative)**

Volume 15 of the *Taking Stock* report series, with a feature analysis of pollutant release and transfer registers (PRTR) reporting by the mining industry, was published in April 2018. Additional enhancements were made to the *Taking Stock Online* website and searchable database, to be launched late spring 2019, including a new landing page with information to help guide users; the integration of data for the 2016–2017 reporting years; and new features to support the visualization and understanding of PRTR data. During 2018, users consulted the *Taking Stock Online* website and infographic 1,695 times, including 912 database sessions. During that same period, there were 1,108 downloads of the *Taking Stock* report series, including 819 of the latest report (vol. 15). As per the recommendations of the *Action Plan to Enhance the Comparability of PRTRs in North America*, the CEC also engaged technical experts of the three North American PRTR programs in a trinational effort to address data quality and completeness issues.


Since July 2017, new additions to the Atlas included a map layer and database on terrestrial and marine protected areas in North America, an updated blue carbon map layer and database, and a new continental land cover map at 30 m resolution. The CEC Atlas has remained a popular tool, with an average of 2,000 visits and 11,000 downloads of individual datasets per year. For example, in 2017 there were more than 14,200 downloads of Atlas datasets and over 17,000 downloads in 2018 (including land cover products). Their audience includes researchers, academia, museums, Geographic Information Systems (GIS) experts and other users.

**North American Portal on Climate Pollutants**

During the period of the Operational Plan 2017–2018 there were approximately 1,000 visits on the Portal website. In 2017, a survey was administered to elicit feedback from users of the tool in order to better understand how these data were being used, and what capacities were desired by its user base. It was made clear that, while this tool serves a niche audience, these users appreciate its function and require the data to be updated more regularly.
Overall Performance Results for Other Mechanisms

Under the OP2017–2018, JPAC, SEM, NAPECA, and the Communications and Outreach units developed specific performance measures in order to achieve the objectives laid out for the period. Following are a few highlights:

**JPAC**

In fulfilling the objective to provide meaningful recommendations to the Council and information to the Secretariat, JPAC:

- Sent 5 Advices and letters to the Council, of which 3 of them included sections on emerging issues;
- Held 6 calls/meetings with the Alt Reps to report on outcome of public fora and receive feedback; and
- Was engaged in providing expertise on 3 CEC projects.

In fulfillment of the objective to increase public participation in CEC initiatives and promote greater dissemination of North America environmental information and CEC work:

- In total, 42 new organizations attended JPAC meetings; and
- There were 4987 online participants and 98 in-person participants at JPAC public sessions, with most of the latter group participating for the first time.

**SEM**

In fulfilling the objective to expand outreach to new stakeholders and educate the public about the SEM process:

- The SEM process was presented at 23 events (12 in Canada, 6 in the United States, 5 in Mexico). Through these, 90 new stakeholder groups were reached; and
- 7 new submissions were filed.

**NAPECA**

In fulfilling the objective of enhancing the quality and outreach for the NAPECA grant process, the following results were achieved:

- 255 NAPECA applications were received following a largely disseminated NAPECA Call for Proposals that ended in August 2017. Nine projects were selected for implementation until 30 November 2018. Out of these, 7 grants were completed on time, and 100% of them showed evidence of having achieved the results they had set out (based on performance measures established for each project).

**COMMUNICATIONS AND OUTREACH**

In fulfilling the objectives to 1) raise general awareness of the CEC as an important agent in protecting the North American environment and supporting sustainable development; and 2) build support for the CEC and the role it plays in North America:
• There have been 2,870 news articles covering CEC work, with a significant number on food loss and waste. This represents a 116% increase from the number of articles published under the 2015-16 OP.

• There are 23,583 social media followers, representing a 37% increase from June 2017.

• Over the last two years, there have been 221,684 website users, and 1,103 members of the public have participated in CEC webcast events (e.g. JPAC meetings) and other meetings where CEC work was presented.

Conclusion

Performance Analysis

The assessment of the last two years indicate that, overall, the CEC has succeeded in achieving the goals and objectives it had set for its work and that performance targets were at times exceeded. Moreover, it can be said that the results under each project have contributed to the three strategic objectives set by the Council in the Strategic Plan 2015–2020, which were:

1) To minimize threats posed by climate change by taking actions to plan for and implement climate change adaptation and mitigation measures that will protect human health and the environment from the effects of climate change;

2) To identify steps to reduce emissions from the transportation sector; to provide management systems options that will explore clean energy technologies and increase energy efficiency; to explore alternatives for addressing waste reduction and recycling, including the diversion of organic waste from landfills; and to develop information and tools in support of sustainable consumption and production; and

3) To maintain efforts to improve and restore the integrity of ecosystems, landscapes and seascapes; to conserve priority species; and to enhance rural and urban environments by working closely with communities.

However, considering that these objectives were general in nature, it would be desirable that in developing future strategic plans, the overarching strategic objectives also be SMART (specific, measurable, achievable, relevant and time-bound) to better assess how all aggregated projects have contributed to achieving them.

Next Steps

In consultation with the project steering committees, performance measures and targets will be refined in the coming months for all projects under the new Operational Plan 2019–2020. They will, in turn, be monitored on a quarterly basis and reported on annually.

The report and feedback component at mid-term of the OP implementation is now formally integrated to allow project steering committees to discuss project performance and adapt/adjust activities as needed to meet the project objectives. Through this, the CEC hopes to continue stimulating concrete results at the project level and across the organization.
Annex I: Critical assessment of projects and interactive tools under OP 2017–2018

Following is a brief critical assessment highlighting positive or negative aspects that influenced the performance of projects, ongoing initiatives and interactive tools:

Monitoring Health Impacts from Extreme Heat Events

Two project activities originally proposed, the Evaluation Framework and the Online Course for Syndromic Surveillance Systems, were removed from the work plan as a result of the decision by the Parties to reduce the project budget and timeline. After the Parties decided to extend the project timeline to June 2019 and provide budget adjustments, it was already too late to initiate these activities and complete them on schedule. However, the activities centered on improving the capacity of the communities to monitor heat-related illnesses were all successfully completed.

Reducing Pollution from Maritime Transport

The transition to the new federal administration in Mexico resulted in delays in some administrative actions required to finalize the review of the emissions control area (ECA) designation proposal and its submission to the International Maritime Organization (IMO). This resulted in the need to adjust the scope of the project.

Improving Black Carbon Emissions Inventories Data for Small-scale Biomass Combustion

Despite the changes in project scope resulting from budgetary and timeline restrictions, the final project deliverables provided meaningful and useful data to the countries for improving their emissions estimates of black carbon and PM$_{2.5}$.

Measuring and Mitigating Food-Loss and Waste

The project benefited from the strong involvement of government experts as well as from a very active guidance of key stakeholders from the private sector, youth-based community associations, academic and educational institutions, the charitable sector, and Indigenous youth groups from the three countries, resulting in informative, easy-to-use, and useful tools for the food industry and youth to prevent and reduce food loss and waste.

Increasing Industrial Energy Efficiency through ISO 50001

The tight project timeline and North American trade negotiations created a barrier for manufacturers and their North American suppliers to join the program and invest in implementing energy management systems. However, this work provided information and lessons-learned on the challenges to engage with supply chains on energy efficiency, which have been included in the how-to guide.

Supporting Sustainable Trade of CITES Species

Despite a changing project timeline and budget, 8 of the 11 agreed priorities were implemented. However, the changing timeline resulted in low participation from government officials and enforcement officers in some workshops, due to insufficient time for travel approval. In addition, the scope of some priorities was reduced or modified. A longer project would have allowed the implementation of remaining priority actions identified in the Funding and Partnership Strategy. The project benefited from the strong involvement of government experts resulting in the publication of project deliverables and tools (e.g., tarantula identification guide and outreach videos) to support the legal trade of priority species.
Conserving Shorebirds through Community Engagement

The project built on previous work at the same migratory bird sites, leading to very efficient delivery of several products fitting the needs of each site. The collaborative network of site-based conservation communities was strengthened, supporting continued collaborative work beyond the project’s timeline. Circumstances outside the control of the project consultants and partners (related to security and multi-jurisdictional processes) prevented the delivery of some of the originally planned activities, but the consultants' and partners' adaptability to changing circumstances allowed the project to deliver strong outcomes with lasting, expected impacts.

Science for Monarch Butterfly and Pollinator Conservation

Despite a changing project timeline and budget, the project supported research projects on all priority areas identified and provided cutting edge results to promote monarch butterfly conservation. However, a longer project timeline would have allowed stronger results for both the spring and fall migration, in order to identify additional research and monitoring needs. This project benefited from the strong involvement of government experts, resulting in groundbreaking research and unique collaborations to support monarch butterfly conservation along its migratory flyways.

Strengthening Adaptive Capacity of Marine Protected Areas

The project built on previous work with the same pilot sites, government experts, and consultants, allowing effective engagement and delivery of a co-produced toolkit under a very short timeline for this type of work. Strong involvement of all involved was essential to this success. The new involvement of a major partner (UN Environment) in the long-standing NAMPAN program, demonstrates the value of building relationships over time, which demands that projects allow for intermediate goals with a long-term view.

Building Community Solutions for Marine Litter

Despite a changing project timeline and budget, the project’s multi-stakeholder approach provided the flexibility to select the most appropriate actions for local implementation. However, a longer project timeline would have allowed for stronger stakeholder engagement in each watershed and the pilot implementation of a wider range of local actions.

Tracking Pollutant Releases and Transfers in North America (PRTR)

Activities have proceeded as planned. However, the assigned budget constrains the potential to move beyond data compilation and presentation. With additional funding, more emphasis could be placed on stakeholder engagement activities and gauging the use of the data, particularly through industry partnerships, which would support our efforts to promote pollution prevention, a key objective of this initiative.

CEC Interactive Platforms

A. North American Environmental Atlas

The Atlas project boasts some of the highest download statistics on the CEC webpage, indicating its popularity amongst users seeking geospatial data. However, the infrastructure of the online Atlas interactive tool is approximately 8 years old, and becoming outdated as new online mapping platform technologies have emerged.

B. North American Land Change Monitoring System (NALCMS)

Following the November 2017 release of the first-ever 30 m Land Cover of North America product for 2010, this project saw unprecedented download statistics, indicating the popularity of this product for its audience. Although the budgetary uncertainties in 2018
prevented the NALCMS group from having their intended face-to-face meeting, the experts have been working on the 2015 Land Cover product (at 30 m resolution), which is scheduled for release in summer 2019.

C. North American Portal on Climate Pollutants

An online survey initiated in 2017 indicated that users of this portal appreciated the easy access to climate pollution information via this tool, as well as its general layout and functionality. One challenge is the high cost involved in upgrading the tool’s structure and capabilities that would allow the information to stay current. One option to be explored is to migrate the data using the technology employed in *Taking Stock Online.*