

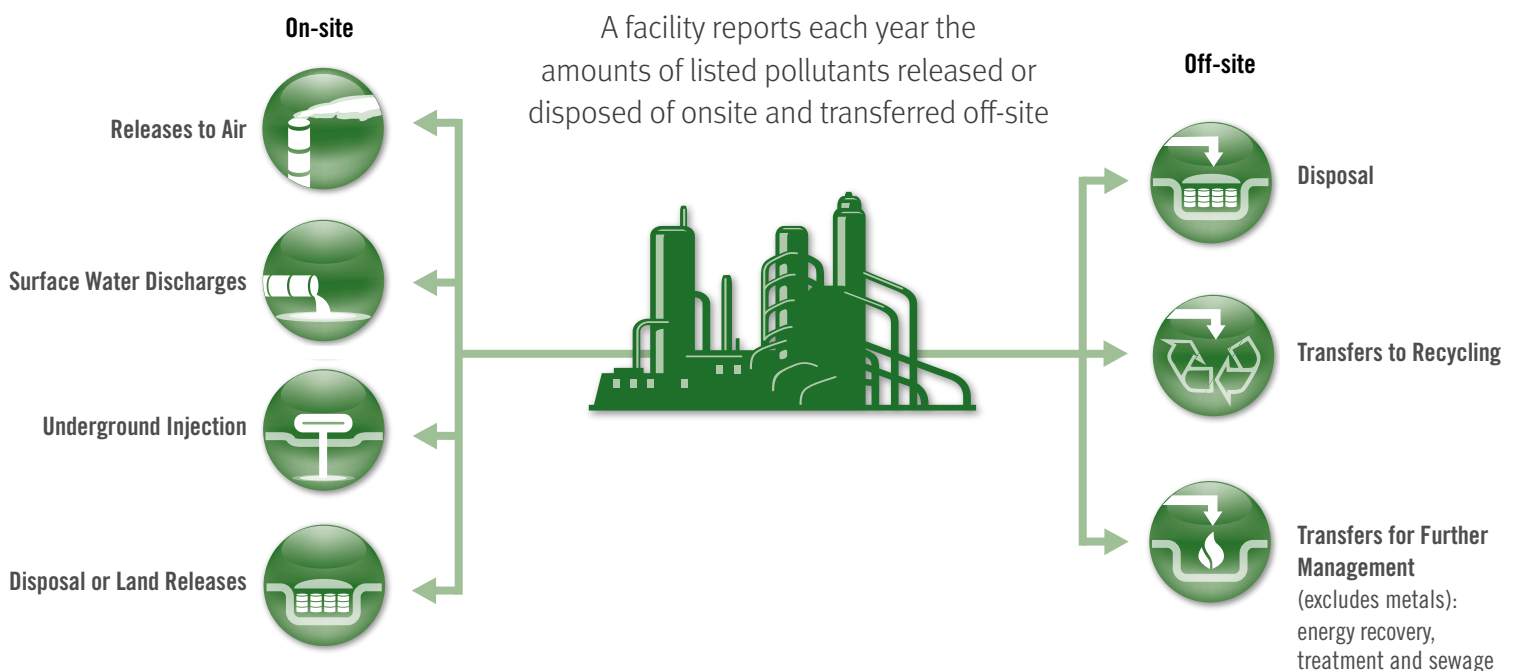
# Long-term Impact Assessment

## of the North American Pollutant Release and Transfer Register Initiative (1995–2015)

The North American Pollutant Release and Transfer Register (NAPRTR) Initiative originates from a commitment of Canada, Mexico and the United States under the North American Agreement on Environmental Cooperation (NAAEC) to enhance the quality and comparability of PRTR data across the region, through improvements in methodologies for data gathering and management, electronic communications, and analyses, in order to 1) effectively track releases of industrial pollutants across North America, and 2) enhance access to and use of the information to develop sound pollution prevention and reduction initiatives.

Since 1995, through the NAPRTR Initiative, the CEC has focused on compiling, analyzing and disseminating data and information on the amounts, sources and management of industrial pollutants across the region via the Taking Stock Online website, the *Taking Stock* report series, and stakeholder engagement activities.

### Pollutant Releases and Transfers in North America



In 2018 the CEC commissioned a report to assess the long-term impacts of the Initiative by evaluating the performance and results achieved over the first 20 years of its implementation (1995–2015). This assessment aimed to provide evidence of long-term impacts relating to the specific objectives of the Initiative, as stated in various Council Resolutions and other decisions. The assessment report concludes that there have been positive impacts in the following three areas:

- Governance and capacity-building;
- Public participation, awareness, and access to information;
- Promotion of pollution prevention and reductions.

Each government of the region administers a pollutant release and transfer register (PRTR) to which industrial facilities annually report their data on releases and transfers of pollutants—to the air, water, land, or underground injection; and for recycling, treatment, or final disposal. The CEC’s NAPRTR Initiative facilitates public access to these data by compiling, harmonizing and disseminating them through the Taking Stock Online website and searchable database; and through analyses of the data and related information in the *Taking Stock* report, to further the public’s understanding of the sources and management of industrial pollutants across North America.

The methodology for this assessment includes a review of anecdotal and statistical evidence on the use of the *Taking Stock* reports and other publications, CEC Council Resolutions and other key decisions, and activities put forward in Operational Plans during this period. Additionally, interviews were conducted with 9 individuals currently or previously engaged directly in the Initiative’s implementation, and a survey was administered to 55 people who have participated in the regular public meetings of the Initiative.

The production of materials and energy we use every day generates pollutants that must be managed.



 MANGANESE\*

 CHROMIUM\*

 LEAD\*

Visit the CEC’s *Taking Stock Online* website to explore pollutant data reported by almost 30,000 industrial facilities across North America: [cec.org/takingstock](http://cec.org/takingstock)

\* and its compounds

The following two questions constitute the core of this assessment:

*Did the initiative address the environmental objectives stated in Council decisions and the activities and tasks specified in the CEC Operational Plans over the 20-year period?*

The objectives and commitments established by the CEC Council, along with advice from the CEC's Joint Public Advisory Committee (JPAC)<sup>1</sup> during this period, can be summarized as follows:

- Enhancing public participation and access to and awareness of environmental information;
- Developing national capacities and the comparability of PRTR data for the region;
- Promoting pollution prevention and reductions within North American industry.

The assessment reveals that between 1995 and 2015, the NAPRTR Initiative successfully addressed the first two areas of impact, with moderate evidence of impact in relation to the third. Web statistics and user feedback show that the tools and data accessible via Taking Stock Online have been very useful, particularly with respect to cross-border areas; and the in-depth analyses provided in the *Taking Stock* report series, especially those published in the last ten years, have succeeded in improving the public's understanding of industrial releases and transfers. This understanding has not been limited to the sources and management of industrial pollutants, but includes a greater awareness of the processes of specific industry sectors, including pollution prevention efforts, and of the role that consumers play in environmental sustainability.

The sustained effort over 20 years to compile and harmonize data from approximately 30,000 facilities for the Taking Stock Online database has involved numerous collaborative exchanges among the national programs, leading to important improvements in the quality and coverage of the data, and thus in data comparability across the region. These improvements are the result of capacity-building efforts, including the establishment of Mexico's mandatory PRTR, trilateral data quality collaboration (particularly with respect to data outliers and cross-border transfers), and a sectoral pollutant profile approach that engaged industry sector representatives.

*Did the initiative reach its intended beneficiaries/audience and, if so, how did they use the information produced?*

The target audience for this Initiative includes a wide range of stakeholders interested in industrial pollution and environmental sustainability, including industry, governments, nongovernmental organizations (NGOs), academia, and the public. The Taking Stock Online website, searchable database, and features such as the watersheds-query tool and mapping interface have been instrumental in improving public access to and understanding of national and trilateral PRTR data. Users have provided positive feedback on particularly useful tools and analyses, such as the categorization of pollutants of common concern (e.g., known or suspected carcinogens) and graphic data overviews with additional contextual information about reporting (e.g., decreases in production).

The information has been used in a variety of ways, as indicated by stakeholder feedback—for example, the three governments have used the data to identify potential facility compliance issues and to assess reporting requirements; NGOs have used the information in their own analyses and to support their counterparts across the region; and industry (e.g., pulp and paper producers) has used the information to assess reporting by their facilities, as well as for assessing the effectiveness of green chemistry or other pollution prevention measures.

1. Key Council Resolutions or releases of JPAC Advice guiding the NAPRTR Initiative during this period include: *Resolution 95-08: Public Access to Environmental Information*; *Resolution 97-04: Promoting Comparability of Promoting Comparability of Pollutant Release and Transfer Registers (PRTRs)*; *Resolution 00-10: Children's Health and the Environment*; *JPAC Advice to Council 11-03: Managing E-waste in North America*.

## Successes

A fundamental success of the Initiative has been significant progress on harmonizing and integrating data from the three North American PRTRs, which differ in their regulatory frameworks, reporting thresholds, and industry coverage. Nonetheless, the Initiative has produced a regional dataset accessible online, with analyses in the *Taking Stock* reports. The following are examples of the Initiative's successes in the three identified areas of impacts:

### a) *Access to information, awareness raising, and public participation*

A key impact of the initiative has been the establishment of Mexico's mandatory PRTR program, which has helped raise awareness in Mexico of the potential problems associated with industrial pollutants. NAPRTR Initiative meetings during this period enabled the creation of networks among Canadian, Mexican and US NGOs and helped Mexican NGOs understand possible mechanisms for participating in their national PRTR consultations.

The information analyzed in *Taking Stock* has been cited in other reports and in media articles. For example, volume 14 of the report, presenting an overview of North American PRTR data for 2005–2010, was hailed as the first study attempting to characterize North American industrial pollutant releases and transfer data in an understandable way.<sup>2</sup>

### b) *Governance and capacity-building*

While its capacity-building impacts in the establishment of Mexico's mandatory PRTR have been lauded, the trilateral collaboration necessary to produce and publish the *Taking Stock* dataset has been no less important in harmonizing procedures for national data compilation and processing, with all three countries now on similar publication schedules.

The discussions during the public meetings of the Initiative have had other, multiple impacts. For example, during the 2014 public meeting, NGO representatives brought up the lack of Mexican data for the mining sector. This led to a 2015 meeting with mining sector representatives from the three countries, and the decision to include a related feature analysis in the next *Taking Stock* report. The sectoral feedback and the information in the resulting report revealed an important gap in Mexican reporting requirements that accounts for the paucity of data for the mining sector.

The national programs also regularly indicate that feedback from CEC stakeholders informs enhancements to their own websites, tools, and stakeholder outreach activities.

### c) *Promoting pollution prevention and reductions*

Through the more complete, comparable and accurate trilateral dataset and the *Taking Stock* data analyses, the NAPRTR Initiative has revealed important information about environmental issues and the relationship with industrial pollutant releases and transfers, including information about major data gaps across the region (e.g., for oil and gas extraction facilities), which limit our understanding of pollutant loadings in the environment.

Media attention centering on the *Taking Stock* report has led to increased scrutiny of industrial activities by the public, NGOs, and industry. The ability of industry sectors to compare data from similar facilities across the region allows them to assess material inputs and the potential for reductions in both operating costs and toxic releases.

During the 2000–2006 period, the data compiled and analyzed under this Initiative were used to support a North American effort relating to children's health and the environment. Two reports<sup>3</sup> were published, based on Canadian and US PRTR data (with no data for Mexico available at the time) and their relationship to children's exposure to toxic chemicals such as lead.

2. La Presse, 1 October 2014. Montreal: Canada: <[http://www.lapresse.ca/environnement/pollution/201410/01/01-4805339-premier-portrait-global-des-rejets-polluants-en-amerique-du-nord.php?utm\\_categorieinterne=trafficdrivers&utm\\_contenuinterne=cyberpresse\\_B9\\_environnement\\_263\\_accueil\\_POS1](http://www.lapresse.ca/environnement/pollution/201410/01/01-4805339-premier-portrait-global-des-rejets-polluants-en-amerique-du-nord.php?utm_categorieinterne=trafficdrivers&utm_contenuinterne=cyberpresse_B9_environnement_263_accueil_POS1)>.

3. <<http://www3.cec.org/islandora/en/item/2174-special-report-toxic-chemicals-and-childrens-health-and-environment-in-north-summary-en>>.

Taking Stock brings together data reported by industrial facilities to the Canadian, Mexican and US pollutant release and transfer registers (PRTRs).

Explore North American PRTR data using the tools below ↓



Query the main database



Explore cross-border transfers



Create summary charts



Map the data

## Challenges

This long-term impact assessment also highlights challenges faced during the implementation of the Initiative, with important ones that include:

The scarcity of financial and human resources available to the CEC and at times, the national programs (in particular, Mexico's PRTR program). While this has constrained the CEC's ability to undertake certain activities, such as engaging industry in pollution prevention initiatives, the Secretariat has, to a limited degree, been able to leverage other resources (e.g., technical personnel involved in national data quality work).

Data comparability is another challenge, resulting in part from the fact that each PRTR program has developed over time to address national needs; however, collaboration in this area is also impeded by the lack of resources, which constrains efforts such as industry sector pollutant profiles and assessments of sector reporting – activities which would help inform reporting requirements aimed at increasing the coverage of the PRTRs and, hence, regional comparability.

A third main challenge has been that of keeping stakeholders engaged, through meetings and other outreach activities. The regular public meetings of the Initiative have been instrumental in periodically engaging stakeholders in the work of the CEC, or in parallel efforts, through exchanges at these meetings. However, insufficient resources have made it difficult to sustain this critical stakeholder engagement.

## Recommendations

Not surprisingly, a key recommendation highlighted by survey respondents and interviewees for this assessment report is the need for additional resources to support the engagement of stakeholders among industry, NGOs, national and subnational governments, academia and the media for the implementation of the principal actions of the *Action Plan to Enhance the Comparability of Pollutant Release and Transfer Registers in North America*,<sup>4</sup> published in 2014. The Action Plan was the result of a two-day workshop with stakeholder discussions about how best to enhance the scope, quality and comparability of PRTRs across the region, in order to promote understanding of industrial pollutant releases and responsible pollution prevention and reduction decisions. These recommendations are grouped under ten themes, each with specific actions for implementation—with principal actions including:

- Undertake trilateral information exchanges related to:
  - Substances of common concern that meet the shared criteria for PRTR reporting, with a focus on pollutants of common concern, those prioritized through national assessments (e.g., greenhouse gases), and those associated with industrial activities of interest.
  - Increase the coverage of industries across the region, ensuring the consistent application of industry codes, etc.
- Establish a North American “industry challenge” program to promote pollution prevention and sustainability, similar to the successful US EPA 33/50 program, or the Canadian ARET program.
- In collaboration with statistical and mapping agencies, develop data layers to increase users’ ability to interpret PRTR data,; establish partnerships with industry and scientific organizations; develop digital tools and story ideas for training journalistic associations and the public to be comfortable manipulating PRTR data.
- Identify sustainable development priorities at various levels; focus on how PRTR data could support development of action plans; develop a mechanism for sharing best practices and successes in implementing sustainable practices within industry.

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### About the CEC

*The Commission for Environmental Cooperation (CEC) was established by the governments of Canada, Mexico and the United States through the North American Agreement on Environmental Cooperation, the environmental side agreement to NAFTA. An intergovernmental organization, the CEC brings together citizens and experts from governments, nongovernmental organizations, academia and the business sector to seek solutions to protect North America’s shared environment while supporting sustainable economic development. Find out more at: [www.cec.org](http://www.cec.org).*

*CEC initiatives are undertaken with the financial support of the Government of Canada through Environment and Climate Change Canada, the Government of the United States of Mexico through the Secretaría de Medio Ambiente y Recursos Naturales, and the Government of the United States of America through the Environmental Protection Agency.*

4. <http://www3.cec.org/islandora/en/item/11583-action-plan-enhance-comparability-pollutant-release-and-transfer-registers-prtrs-en.pdf>

