



Evaluation of the Conservation Exchange Pilot

Final Report

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Accessibility Statement

As of the date of publication, the document has been verified for accessibility.

If you have any questions about this document, please contact us at: audit-evaluation@ec.gc.ca

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List of acronyms and abbreviations

CX	Conservation Exchange
ECCC	Environment and Climate Change Canada
ESG	Environmental, Social and Governance
EWG	External Working Group
FAQ	Frequently Asked Questions
GDP	Gross domestic product

1. Introduction

This report presents the evaluation of Environment and Climate Change Canada (ECCC)'s three-year Conservation Exchange (CX) pilot, a component of the Enhanced Nature Legacy horizontal initiative funded from 2021-22 to 2023-24. Pilots are often used to field test ideas on a small scale, which is a proven way to support innovation and obtain real-time feedback.

1.1 Background

Species and ecosystems around the world are declining at an unprecedented rate. According to the [Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services](#), nature loss is primarily driven by land-use and sea-use change, direct overexploitation of natural species, climate change impacts, pollution, and invasive alien species. Globally, around 1 million species (out of a total 8 million species) are threatened with extinction. Canada's nature is also in decline, with 20% of assessed species facing some level of extinction risk and with continued land conversion and land- and sea-use intensification resulting in an ongoing loss of natural habitats.

Governments around the world are increasingly recognizing the severity of biodiversity loss. In December 2022, 192 countries including Canada adopted the [Kunming-Montreal Global Biodiversity Framework](#), which aims to take urgent action towards halting and reversing nature loss by 2030.

Globally, [79% of the funding for nature conservation](#) comes from governments and philanthropic organizations, with the remaining 21% contributed by private investments. To meet this global need for annual conservation funding, it has been estimated that [private investment capital needs to be 20-30 times greater than current levels](#), even if current government and philanthropic funding were to double. Despite substantial increases in public-sector investments, resources currently allocated to halting and reversing nature loss are not sufficient for the momentous task at hand. According to the United Nations' [Biodiversity Finance Initiative](#), the world needs an additional US \$600 to 824 billion every year through 2030, representing close to 0.7% of the global GDP.

The Government of Canada aims to conserve 30 percent of Canada's land and water by 2030. It is estimated that an additional [CA \\$20 to 28 billion](#) is needed every year to close the nature conservation funding gap. Increasing [investments in nature by](#) non-government actors such as private-sector businesses is one of the promising avenues to close this gap.

Within the Government of Canada, ECCC has a comprehensive suite of programs directed at conserving nature. This includes programs for species at risk, migratory birds and other wildlife, habitat conservation and protection, biodiversity policy and partnerships, environmental assessment, and compliance promotion and enforcement of wildlife-related regulations. Canada made historic investments in nature conservation through the [Nature Legacy](#) initiative, in 2018, and the [Enhanced Nature Legacy](#) initiative, in 2021, which provided incremental funding for ECCC programs. Figure 1 below describes ECCC's programs and tools to conserve nature.

Figure 1. ECCC programs and tools to conserve nature

Nature conservation programs			
species at risk - migratory birds and other wildlife - habitat conservation and protection - biodiversity policy and partnerships - environmental assessment - compliance promotion and enforcement of wildlife-related regulations			
Collaboration and Influence	Legislative and Regulatory Actions	Direct Conservation	Funding and Incentives
Partnerships with federal departments, provincial and territorial governments, Indigenous organizations, non-governmental organizations, the private and philanthropic sectors, and academia.	Suite of legal tools comprising obligations and flexible authorities. Includes the Federal <i>Species at Risk Act</i> , the <i>Migratory Birds Convention Act</i> , and the <i>Canadian Wildlife Act</i> .	Establishment and management of a network of federal protected areas, including ECCC’s National Wildlife Areas and Migratory Bird Sanctuaries.	Funding programs enable partner actions and stewardship, and leverages matching funds. Tax benefits such as the ones provided by the Ecological Gifts Program incentivize further habitat conservation.

Investing in biodiversity conservation could bring several benefits to private-sector organizations. First, it can build or strengthen a social license to operate from the perspective of key stakeholders, such as local communities, employees, shareholders, and investors. This license can translate into project-specific social acceptability, employee commitment and retention, and opportunities to raise capital. Second, some investment vehicles for biodiversity conservation can provide benefits beyond reputation, in the form of direct fiscal or financial gains. Third, investing in certified conservation projects helps private-sector firms get ready for nature-related financial disclosures, whether mandatory or not. Fourth, for some firms with specific risk profiles, investment in conservation can mitigate business risks associated with biodiversity decline and ecosystems services.

1.2 Overview of the Conservation Exchange Pilot

The [Conservation Exchange Pilot](#) was undertaken to determine whether and how the approach would support closing the nature conservation funding gap in Canada. ECCC allocated \$4.7 M in temporary budget resources to the Conservation Exchange Pilot over three years, starting in 2021-2022. During the evaluation period, the Assistant Deputy Minister of the Canadian Wildlife Service extended the Conservation Exchange pilot by two years. See Table 1 on the next page for a breakdown of actual spending, from 2021-2022 to 2023-2024.

Table 1. Conservation Exchange pilot actual spending, from 2021-2022 to 2023-2024

	Pilot Design	Pilot Projects	Other	Total
Salary and Employee Benefits Plan	\$2,193,077	\$909,886	\$127,000	\$3,229,963
Operations and Maintenance	\$455,587	\$0	\$170,160	\$625,747
Grants and Contributions	\$90,000	\$160,000	\$0	\$250,000
Core Support Services and Central Charges	\$594,001	\$232,052	\$64,452	\$890,505
Total	\$3,332,665	\$1,301,938	\$361,612	\$4,996,215

Source: Financial information provided by Conservation Exchange pilot staff and ECCC partners.

Note 1. The Conservation Exchange did not receive, nor spend capital funding.

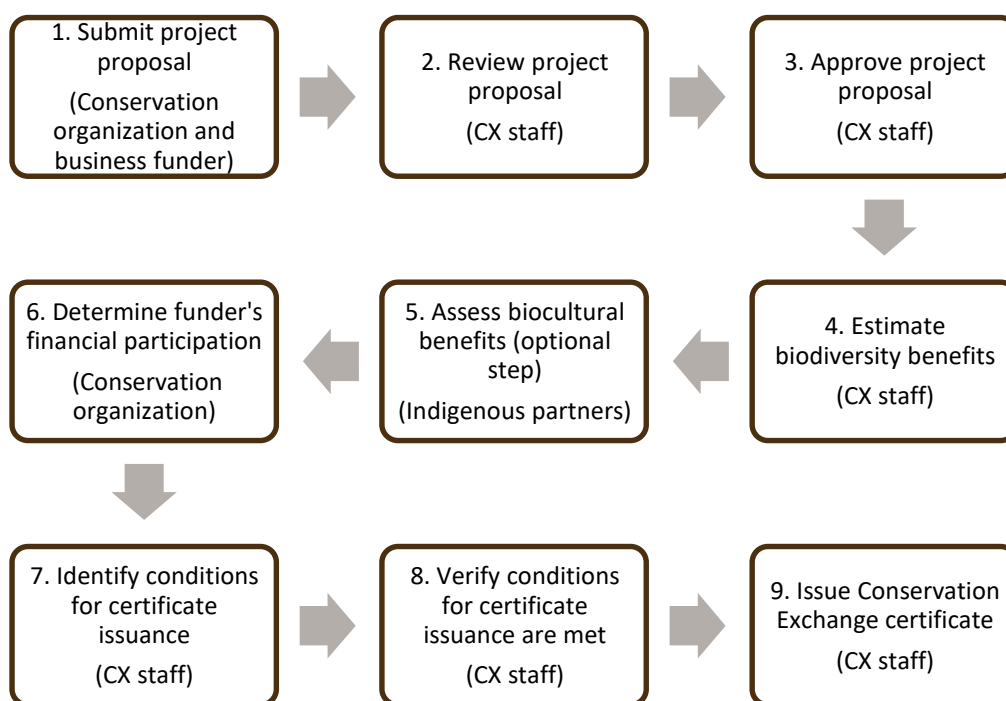
Note 2. At the time of writing, none of the 4 pilot projects were completed. Therefore, the spending on pilot projects reported above is likely an underestimation.

Note 3. Core Support Services and Central Charges are distributed per fiscal year based on the yearly ratio of all other expenditures against total expenditures from 2021-2022 to 2023-2024.

The pilot is a voluntary program through which participating businesses can receive official recognition from the Government of Canada for funding conservation projects with measurable positive impacts on biodiversity. The Conservation Exchange Pilot has no known equivalent in any jurisdiction across the globe and is considered a world first. It is also a new mode of intervention for ECCC, which primarily undertakes legislative and regulatory actions, administers a protected areas program, provides funding, and collaborates with established partners to conserve nature.

The program design states that in order to participate in the pilot, interested parties must first submit an application form. Proposed conservation project applications are reviewed for eligibility. The eligibility components include an assessment of engagement with Indigenous partners, stakeholder engagement, project location, and expected biodiversity benefits. All applicants receive a response, which includes assessment results.

For projects that are screened in, ECCC provides a thorough, science-based estimation of biodiversity impacts. Once a project is fully delivered, ECCC issues a certificate to the funding partner. The certificate provides official recognition that the funding partner contributed to the conservation project's expected positive biodiversity benefits, reflecting their share of total project costs. Figure 2 below illustrates key activities of Conservation Exchange projects.

Figure 2. Key activities of Conservation Exchange projects

Note 1. Project proposal approval is contingent upon satisfactory review.

Note 2. For each activity, the responsible party is identified in parentheses.

1.3 Conservation Exchange Pilot projects

There are four projects currently in progress as part of the Conservation Exchange Pilot. The selection process for the first three were carried out through the pilot's governance outreach, while the fourth project was selected after receiving an unsolicited expression of interest, sparked by the promotion of the Conservation Exchange webpage through a departmental news release. Table 2 provides a description of all four projects.

In the first project of the Conservation Exchange pilot, Irving Oil Ltd. (the business) provided funding to Ducks Unlimited Canada (the conservation organization) for the restoration of a saltmarsh in Amherst, Nova Scotia. In this project, pasture lands are reverted to saltmarsh habitat by creating an opening in an earthen wall that acts as a barrier between the fields and the sea, thus increasing the area of ecologically unique saltmarsh habitats. Work is underway and is expected to be completed by the summer of 2024. Upon receiving proof of project completion, ECCC will issue a Conservation Exchange certificate to Irving Oil Ltd. As of February 16, 2024, no project was completed. As a consequence, no certificate has been issued yet.

Table 2. Conservation Exchange pilot projects

	Project 1 Amherst Point Salt Marsh Restoration	Project 2 Mackenzie Creek Restoration	Project 3 Precision Conservation Agriculture	Project 4 Upper St Mary Collaborative Stewardship Program
Location	Amherst, Nova Scotia	Mackenzie Creek, Alberta	Southwest Manitoba and southeast Saskatchewan	Upper Lee Creek & St. Mary River watersheds, Alberta
Area (hectares)	17.2 ha	300 ha	990 ha	TBD
Project type	Restoration	Restoration	Restoration	Restoration
Habitat	Wetland	Aquatic and riparian	Marginal cropland	Aquatic and riparian
Key measures	Construct new dyke and breach old dyke to restore saltmarsh habitat.	Block creek crossings and re- route trail to mitigate off- highway vehicle impacts. Reduce sediment and restore natural flow and banks.	Convert areas of marginal cropland to perennial cover.	Reclaim stream crossings. Streambank and riparian restoration. Off- road vehicle trail realignment.
Biodiversity benefits estimate	Completed	Underway	Underway	Not started yet (awaiting final project plan)
Biocultural benefits assessment	Not applicable	Not applicable	Not applicable	Expected, but to be confirmed
Certificate	Not issued yet	Not issued yet	Not issued yet	Not issued yet
Funder	Irving Oil Ltd.	Teck	Nutrien	TC Energy Corporation
Conservancy	Ducks Unlimited Canada	Trout Unlimited Canada	Ducks Unlimited Canada	Trout Unlimited Canada
Total cost (\$)	\$681,600	\$404,392	\$325,521	\$525,000
Funder contribution* (\$; %)	\$150,000 22 %	\$300,000 74 %	\$12,428 4 %	\$150,000 29 %

Source: information provided by Conservation Exchange pilot staff

*Funders receive recognition for a project's biodiversity benefits in the same proportion as they contribute to the project costs. For example, if a funder provides 60% of the funding, they receive a certificate for 60% of the biodiversity benefits of the project.

1.4 About this evaluation

This evaluation provides an assessment of the design and delivery of the Conservation Exchange pilot from 2021-2022 to 2023-2024. This report identifies several lessons learned that were developed to support program management in determining the future of this initiative.

The evaluation focuses on design and early implementation, as well as performance measurement and innovation management. The following methods were used:

- **File review** including work plans, reports, research papers, news releases, backgrounders, written input from external partners, and literature reviews (more than 200).
- **Data review** of administrative and financial data (more than 400 data points).
- **Interviews** with ECCC staff (10) and external partners (10) who made key contributions to the design and delivery of the pilot.

This evaluation was concluded shortly before the end of the 3-year pilot, and it reports on information collected up to February 16, 2024.

2. Achievements

The following section describes key pilot achievements.

2.1 Program components are designed but not fully implemented

Key findings. The pilot designed three key program components: the estimation of biodiversity benefits, the assessment of biocultural benefits, and the official certification of completed conservation projects. While biodiversity benefits estimation has been completed for one pilot project, no project has yet received a certificate. In addition, only one conservation project was developed with Indigenous partners, and it is expected to assess biocultural benefits.

Three program components were designed during the pilot: the estimation of biodiversity benefits, the assessment of biocultural benefits, and the official certification of completed conservation projects. Each of these is described in more details in this section.

Estimating biodiversity benefits

The Conservation Exchange developed a system to estimate the expected biodiversity outcomes of conservation projects. This system was developed by ECCC wildlife research scientists and academic partners, with input from a comprehensive literature review, working groups, and experts participating in the benefits assessment workshop for the first pilot project.

The metric that was developed offers a quantitative estimate of the biodiversity benefits that are likely to materialize as a result of conservation actions. These benefits are defined as the net improvement in the persistence of species at risk assessed by the [Committee on the Status of Endangered Wildlife in Canada](#) and of other species likely to be present relative to the counterfactual scenario where the project would not have taken place. The metric is designed to apply nationally, at various spatial scales and across all ecotypes, which enables comparison across conservation projects. To achieve this broad applicability, the metric does not explicitly measure other important characteristics of conservation actions, such as habitat quality, habitat connectivity, and threats. These are, nevertheless, indirectly measured through their impacts on species. Species-based metrics are commonly used in conservation science as surrogates for the overall state of biodiversity and are viewed as sufficient for decision-making.

The pilot relies on expert opinions to generate metrics. Expert elicitation is the process through which expert opinions are collected and synthesized. Elicitation is commonly used in conservation monitoring and is often the preferred approach when limited information is available. Structured expert elicitation protocols can be relied upon to determine whether the expected impacts of conservation projects are net-positive or net-negative, as well as to estimate the magnitude of the impacts.

The CX protocol yields national and local scores that express the average net change in probability of species persistence over 20 years, taking into account current trends. The average net change is computed from the expected changes in the probabilities of individual species' persistence. Local scores denote expected impacts within the project area and can be of interest to local stakeholders. National scores are used for reporting on estimated biodiversity benefits and can be used for project comparison, prioritization, and selection.

Good projects are expected to get positive scores, and national score values are intended for direct comparison across projects. At this time, expected biodiversity benefit scores are generated for three metrics:

- 1) Species at risk, as identified by the Committee on the Status of Endangered Wildlife in Canada;
- 2) Functional groups of species; and
- 3) Ecotypes.

Looking ahead, it remains to be determined which of the functional biodiversity species metrics and the ecotypes metrics will continue to be estimated alongside the species at risk metrics to account for estimated impacts on common species.

Overall, the biodiversity benefit estimation system developed by the pilot is science-based, repeatable, and transparent. Even when empirical data are scarce, it allows for a quick, peer-reviewed, expert-driven estimation of net impacts on key species located within conservation project boundaries. It aims to balance rigorous assessment with cost-effectiveness, and thus aligns with the World Economic Forum's [high-level governance and integrity principles for emerging voluntary biodiversity credit markets](#).

Assessing biocultural benefits

In addition to estimating biodiversity benefits, the Conservation Exchange was designed to recognize and uphold the special relationship Indigenous peoples have with the land. To that end, a protocol was developed to assess contributions to biocultural diversity and biocultural values made by conservation projects. It should be noted that this element of the pilot applies only to conservation projects that are developed in partnership with Indigenous communities. Out of the four pilot projects, only one was developed with Indigenous partners. Trout Unlimited Canada project leads have expressed strong interest in undertaking a biocultural benefits assessment, but decision to go ahead is yet to be made.

Definitions

- **Average probabilities:** Sum of the probabilities that individual species will persist after the intervention, relative to current trends, divided by the number of species considered.
- **Ecotype:** An area more or less uniform in animal and plant communities, in soil and site properties, and in the ecological drivers and interactions that determine their species composition, structure and function.
- **Functional groups:** Groups of species that have similar characteristics and similar influence on ecosystem function.
- **Species persistence:** Change in species conservation status, indicating how likely a species is to become extinct in the near future.

The biocultural benefits assessment was designed to provide standardized measures that are comparable across projects. Assessments are to be led by Indigenous partners in collaboration with the proponents. Measures of biocultural benefits assess the value of conservation actions for Indigenous Peoples living in proximity to the project area, including Indigenous Peoples that hold Aboriginal and treaty rights applicable to that area. Conservation projects may contribute positively to biocultural values such as health, well-being, cultural continuity, improved livelihoods, and economies – with many of these benefits being interconnected.

Three indicator categories are included in the assessment to represent the biocultural benefits of the conservation project to Indigenous Peoples. These categories are based on multi-disciplinary research that investigated how best to contribute to the livelihoods and the well-being of Canada's Indigenous Peoples:

1. **Species.** Estimated net biodiversity benefits for species of biocultural value identified by Indigenous Peoples in the project area.
2. **Role.** Extent to which the project involves Indigenous Peoples as respected partners.
3. **People.** Assessed biocultural benefits of conservation actions for Indigenous Peoples in the form of food, water, medicine, ceremony, healing, social well-being, livelihood, education, and cultural or spiritual connections.

The design of the biocultural benefits assessment aligns with key recommended actions for governments listed in [The North American Regional Declaration on Biocultural Diversity](#), including:

- Creating and sustaining conditions for mobilizing Indigenous knowledge systems by the knowledge holders to guide conservation, sustainable development, and decision-making.
- Developing holistic approaches to remove any conceptual and practical separation of biological and cultural diversities from siloed colonial approaches to conservation, sustainable development, and decision-making.
- Ensuring effective participation of Indigenous peoples in all matters of relevance to them.

Pilot staff and participants will need solid intercultural competencies to sustain relationships and to participate in conservation projects with Indigenous partners.

It is important to note that although project proponents are encouraged to establish relationships with local Indigenous communities and to undertake a biocultural benefits assessment, they are not required to do either. Moving forward, the Conservation Exchange should consider making biocultural benefits assessment mandatory for conservation projects developed with Indigenous partners, with the caveat that Indigenous partners can decline to participate in the assessment without compromising a project's participation in the Exchange. This would strengthen alignment with the Government of Canada's and ECCC's commitment to support Reconciliation while respecting Indigenous capacity and interest to participate into those assessments.

Some uncertainties remain as to whether the biocultural benefits assessment can account for diverse sets of biocultural values in likely cases where two or more Indigenous communities live in proximity to the project and wish to participate in the assessment.

Certifying the positive impacts of conservation projects

In collaboration with external partners and departmental communications staff, pilot personnel developed a certificate to provide official recognition for the net-positive impacts of conservation projects participating in the CX. At the time of writing this report, no project had been completed in the field and had undergone a successful compliance check. As a result, the Conservation Exchange has not issued its first certificate yet.

The certificate will identify the conservation project, the project proponent, the conservancy responsible for undertaking the project, and other partners as applicable, such as Indigenous partners and provincial or territorial governments. Each certificate is marked with a unique identification number and displays estimated national biodiversity benefits funded by the partner, as well as assessed biocultural benefits as applicable. The certificate uses official Government of Canada symbols and is fully compliant with the Government of Canada Policy on Communications and Federal Identity. In addition to the certificate, proponents will be provided with a short companion document and a project file, which are expected to contain additional contextual information on biodiversity and biocultural impacts.

2.2 The Conservation Exchange created partnerships with key conservation actors

Key findings. The Conservation Exchange Pilot created partnerships with key conservation actors and sustained collaboration. External partnerships with not-for-profit organizations and businesses provided continued feedback and support.

The Conservation Exchange Pilot had a short timeframe to develop a functional design and to experiment in a real-world setting. From the outset, partnerships were established with subject matter experts, key conservation stakeholders, and industry representatives. Think tanks, academics, policy analysts, economists, and scientific staff were all tasked with conducting research, reviewing literature, and providing recommendations on how to design and implement a Conservation Exchange fit for purpose.

Three working groups – intradepartmental, interdepartmental, and external – were formed to gather varied perspectives and to obtain rapid feedback. The External Working Group (EWG) continues to meet approximately every 3 months. It is made up of members from the industry and resource sectors as well as conservation organizations, provincial governments, and Indigenous organizations. The EWG made an important contribution to the pilot by providing a wide array of external perspectives on design and implementation options, as well as providing a sounding board for investor interest and motivation.

Opportunities for funders to participate in the pilot were limited by design. The pilot sought to select up to 5 conservation projects to field test its design. The senior official and the manager responsible for the pilot leveraged their professional networks to seek out interested industry representatives. Three out of the four projects selected to participate in the pilot were secured thanks to their efforts.

Although still at an early stage, the pilot has attracted attention and interest from global norm entrepreneurs in the field of sustainable finance. Collaborations were established with representatives from the World Economic Forum and the global Taskforce on Nature-related Financial Disclosures. Moving forward, continued collaboration with these organizations may enable ECCC to contribute to shaping the future of conservation finance in Canada and abroad, which in turn could strengthen the Conservation Exchange's value proposition for private-sector funders.

2.3 The pilot largely adhered to its implementation plan

Key findings. The Conservation Exchange Pilot largely adhered to its implementation plan. However, pilot project completion timelines have not been met. While progress is being made on the four pilot projects, none have been finalized within the original three-year timeframe.

The Conservation Exchange developed a three-year implementation plan from the outset and staff have monitored it throughout the pilot. Work has progressed and all key milestones have been achieved, except for offset policies development and pilot project finalization. Work on biodiversity offset policies was scoped out of the pilot and developed by another team at ECCC. Personnel involved in the pilot analyzed options for possible linkages between the Conservation Exchange and biodiversity offset policies and provided recommendations.

Conservation projects participating in the pilot are fully delivered by external partners, as such ECCC staff has no control over project timelines. Pilot staff are able to undertake a biodiversity benefits estimation only when the conservation project proposal is finalized. Likewise, staff can issue a certificate only once a participating conservation project is fully executed on the ground.

Although project timelines have shifted, participation in the Conservation Exchange is not to be blamed for this result according to pilot personnel and participating conservancies. In their view, application to the CX requires a reasonable level of effort and is an efficient process. Conservancies were required to fill out a short application form designed to support the assessment of the prospective biodiversity value of a conservation project. Conservancies informed us that they invested between 20 to 40 hours, and funders informed us that they only required a few hours-long meetings to finalize their proposals. The biodiversity benefits estimation does not require input from conservancies or funders. As for biocultural benefits assessments, it remains to be seen how much effort will be needed and whether undertaking an assessment will impact overall project timelines.

2.4 Early adopters are willing to continue participating in the Conservation Exchange

Key findings. Conservancies and private-sector funders that participated in the pilot are interested in continuing their involvement in the Conservation Exchange.

During the evaluation period, the Assistant Deputy Minister of the Canadian Wildlife Service extended the Conservation Exchange pilot by two years. As of February 16, 2024, all participating conservancies and funders that we spoke to said they had a positive experience and were interested in continuing their participation in the Conservation Exchange. Representatives from participating organizations indicated that they value science-based information that signals a project's relative impact. Beyond this shared interest for project-specific information, conservancies and funders have different reasons for participating in the CX and for being interested in continuing their involvement.

The CX provides businesses with an opportunity to gain additional reputational benefits as they pursue their principles-based, voluntary commitments to generate positive impacts beyond employment, products and services delivery, and shareholder value. Indeed, participation in the CX offers a standardized, science-based quantification of positive biodiversity impacts issued by the Government of Canada, which not only supplements the reporting of conservation expenditures, but also increases the credibility of corporate sustainability reporting.

A strengthened reputation can translate into better social acceptability for new development projects, into stronger workforce recruitment and retention outcomes, or into better outcomes in capital markets. Some private-sector firms also expect nature-related financial disclosures to become mandatory in the medium-term, and they view participation in the CX as a means to fulfilling some of their expected biodiversity obligations, to establishing fruitful partnerships, and to staying informed about the evolving field of sustainability finance.

Conservancies have their own reasons for participating in the CX. First and foremost, they are participating when funders express an interest in doing so. By agreeing to participate in the Exchange, conservancies provide a service that meets the needs of their private-sector partners. In addition, representatives we spoke with expect that private-sector demand for certification will only be growing, as nature-related financial disclosures become established. Participating in the CX could translate into increased business and funding volumes for conservancies. Lastly, being a part of the CX also offers opportunities to compare benefit assessments methods and metrics, to compare project effectiveness in delivering benefits, and to identify potential improvements to their value proposition.

It is important to note that reputational benefits derived from participating in the CX and in having conservation projects scored for their positive biodiversity and biocultural impacts are not yet realized for businesses. Because they are predicated upon subjective valuation, reputational benefits materialize only when enough private-sector firms, conservation finance actors, and other stakeholders value the certification provided by the CX. It follows that the ability of the Conservation Exchange to deliver expected benefits to its private-sector participants is dependent on the creation of a network effect,

whereby the value of participation in the CX is tied both to the number of participants and to the Exchange achieving a broad recognition in nature conservation and sustainable finance communities.

2.5 ECCC is innovating in the nature conservation policy area

Key Findings. ECCC is purposefully shaping change in the nature conservation policy area. The Conservation Exchange pilot showcases departmental capacity to innovate and to manage innovation effectively.

The Government of Canada values evidence-informed policymaking. A culture of innovation can contribute to strengthening the link between problem-solving, evidence generation, and decision-making. Testing innovations in real-world settings is a proven approach to assessing program design effectiveness, while improving social, environmental, and economic outcomes for Canadians. As the Clerk of the Privy Council [noted in October 2023](#), it is not enough for public servants to be aware of change underway; they must be part of the change and strive to actively shape it. The Conservation Exchange pilot is an example of ECCC purposefully shaping change through innovation in the nature conservation policy area.

As evidenced by Table 3 on the next page, the CX pilot demonstrated sound [departmental innovation management practices](#). Specifically, ECCC committed temporary resources to the pilot, officials adopted an agile approach in defining and finalizing the design of the CX, and collaborations with key internal and external partners were struck up early to establish a short feedback loop. Stakeholders such as conservation organizations and private-sector companies provided feedback on key aspects of the pilot, notably the certificate design, the biodiversity benefits estimation process, and the outreach strategies and products. Subsequently, changes were made to the pilot design as well as the project delivery. As an example, the criteria for acceptable conservation projects were broadened to include other effective conservation measures and the metric for reporting biodiversity benefit estimates was revised as a result of the first expert elicitation process.

In addition, the CX received external recognition for its innovative contributions to nature conservation monitoring and financing. In October 2023, pilot staff participated in the [GEO BON](#) Global Conference on Biodiversity and Monitoring held in Montreal. Conference participants discussed the key challenges to monitoring biodiversity in support of conservation measures and decision-making, including the general absence of predictive indicators. The Conservation Exchange presentation was well received by attendees, with the audience recognizing that: 1) the predictive aspect of the CX indicator is unique and addresses a key gap, and 2) the effort to incentivize private sector investment in nature conservation is valuable.

Table 3. Evidence of sound innovation management from the Conservation Exchange pilot

Indicators of sound innovation management	Evidence from the Conservation Exchange pilot	Evidence strength
Senior leadership commits resources to support innovation	Resources were committed to the pilot over three years, starting in 2021-2022: \$4.7 M in temporary funding, from the Enhanced Nature Legacy initiative funding envelope. Resources supported research and analysis to design the CX, including the ongoing consideration of Indigenous knowledge and perspectives, biodiversity and biocultural benefit metrics, and linkages to sustainable finance. A 2-year extension was received to complete biodiversity benefits assessment for all current pilot projects, to initiate new projects, to further refine the assessment process, and to pursue other applications of benefits estimation in biodiversity-oriented programs throughout ECCC.	Strong
Senior leadership is engaged and provides sufficient oversight	The Director General for the Protected Areas Directorate was involved throughout the pilot and played a key role in establishing collaborations with industry partners. Given the nature and scale of the pilot, senior leadership oversight and support was set at the right level.	Strong
Initiative is tested on a small scale	The CX tests, on a small scale, a design that could potentially be expanded into a national full-scale program. Outreach to potential participants was intentionally limited so that the initiative could be tested through a few initial projects.	Strong
Strategies for designing, testing, and comparing are used	Literature review was conducted to support the design of biodiversity and biocultural benefits estimation metrics and protocols. Existing biodiversity offset programs were reviewed to support the CX design, which is established as a voluntary biodiversity credit program. Conservation actions will be monitored to assess their effectiveness at delivering positive biodiversity and biocultural outcomes. Over time, information pooled from multiple projects could allow for effectiveness comparisons across conservation projects and actions.	Moderate
Initiative has potential for high impact for Canadians or public servants	Although it is difficult to estimate the magnitude of its expected contribution to increased private-sector investment in nature conservation, the CX pilot has demonstrated capacity to enable these investments and the potential for increased conservation outcomes in Canada. In addition, the biodiversity benefits estimation metric and protocol developed by the pilot could be used to inform decision-making and increase the cost-effectiveness of conservation programs. Public servants responsible for funding programs, conservancies, private sector partners, and investors alike could benefit from the increased transparency and accountability delivered by tools developed under the CX pilot.	Moderate
Results are used to inform management decision-making	Pilot achievements and preliminary evaluation findings were used to inform the responsible Assistant Deputy Minister's decision on the future of the Conservation Exchange. As a result, the pilot was extended for two years.	Strong

3. Challenges

The Conservation Exchange was designed to contribute to closing the conservation funding gap in Canada by driving or enabling substantial increases in private-sector investments. To demonstrate that it can make a significant contribution, the CX needs to scale up. The CX also needs to define what success looks like in relation to Canada's conservation funding gap, in order to best focus efforts and resources. Increasing the number of projects by a factor of 10, for example, would represent 50 business-funded voluntary conservation projects per year. If the average project obtains \$500,000 in private-sector funding, these projects would collectively close the conservation funding gap by approximately 20 to 25 M per year (a tenth of 1% of the gap).

The challenges identified in this section would need to be mitigated or resolved for the CX to deliver on its core objective to closing the conservation funding gap in Canada. Incremental resources would likely be required in the short- and medium-term to overcome these challenges.

3.1 Conditions for high demand are not realized

Key findings. The Conservation Exchange aims to increase voluntary private-sector investments in conservation. To achieve this goal, a high demand for the official recognition offered to businesses by ECCC is a key success factor. Close to three years after the pilot was initiated, the level of demand required for significant impact has not yet been realized. Moving forward, some efforts and resources should be directed towards creating conditions for high demand.

Over the course of its three-year pilot, the Conservation Exchange created a value proposition for businesses and conservancies, and designed and piloted a program to determine how well it would be implemented on a larger scale. Based on the results to date, there are certain long-term success factors that have not yet been achieved, these include:

- Widespread awareness of the CX amongst publicly traded Canadian businesses.
- Sufficient understanding of the CX for potential participants to grasp its value proposition.
- Demonstrated realization of reputational benefits by means of participating in the CX.
- Realization of financial benefits compatible with participation in the CX.

Awareness of the Conservation Exchange

During the pilot, outreach to businesses and conservancies was initially limited to members of the External Working Group and the professional networks of CX leadership. Through this targeted outreach, conservation partners were invited to participate in the pilot. During this phase, three businesses responded to the invitation and agreed to have their projects participate in the Conservation Exchange.

In the pilot's third and final year, a dedicated webpage was developed and published, and additional communications activities were undertaken, including a pamphlet, a news release, and a social media roll-out. From online publication in March 2023 to September 2023, the 1,036 visitors who consulted the

French and English versions of the [CX webpage](#) stayed on the page for an average of 3 minutes 34 seconds (median: 1 minute 49 seconds). Over the 10 days (inclusively) after the [May 17, 2023 Departmental news release](#), 216 visitors (21%) consulted the webpage for an average and median duration of close to 5 minutes. Table 4 below summarizes these Web analytic metrics. These results show the news release was effective in driving traffic to the Conservation Exchange webpage.

Table 4. Visitors and visit duration on the Conservation Exchange webpage

Period	March to September 2023	May 17 to 26, 2023 (subset)
Unique visitors	1036	216
Average visit duration	3m 34s	4m 56s
Median visit duration	1m 49s	5m 3s

Source: Web analytics provided by ECCC Communications.

Out of only three expressions of interest received subsequent to communication activities, one translated into an additional pilot project. Recruitment through the webpage and other communication activities has not been as successful as expected and raises concerns about the ability of these activities to attract future participants.

If the assumption that the CX's success hinges on leveraging network effects is sound, increasing conservation partners' awareness of the Exchange is necessary in the short- to medium- term to create sufficient momentum. As emphasized by External Working Group members, effective marketing and communications is key to unlocking the CX's potential. The following measures may increase awareness of the Conservation Exchange:

- Strengthened digital presence.** The current departmental webpage dedicated to the CX does not offer a user experience likely to provide a level of awareness and understanding of the Exchange that would be sufficient to translate into an interest to participate in it. In contrast, the well-established [Ecological Gifts Program](#) designed to incentivize private contributions to nature conservation has a much stronger digital presence, with several departmental webpages dedicated to providing extensive information on the program, including how to participate and what to expect. The Ecological Gifts Program has also developed a thorough program handbook which acts as a one-stop, downloadable reference for interested parties.
- In-person outreach and marketing.** The success of the CX is predicated on its ability to create a network effect. Even if strengthened, digital presence is not likely to generate this effect on its own. In-person outreach and marketing to private-sector organizations are required to build awareness, understanding, and interest. CX representation and participation in national, regional, and sector specific Environmental, Social and Governance (ESG) events would enable network building with business representatives that are likely to have a keen interest in CX's value proposition. Although conservancies are not expected to drive participation in the CX, in-person outreach and marketing activities could also be extended to them, as needed.
- Speaking the right language.** Although the CX is rooted in nature conservation science and strategic policy objectives, it also aims to have an impact on how Canadian businesses allocate resources to voluntary conservation projects. To that end, the personnel responsible for

representing the CX and for communicating its value proposition to prospective participants from the private-sector and ESG specialists would benefit from being versed in sustainable finance, marketing, and strategic business management.

- **Media coverage.** National media coverage of the CX's innovative value proposition, the projects to date, and ECCC's conservation partners would likely increase awareness and possibly also increase businesses' interest to participate in the network.

Understanding of the Conservation Exchange

In addition to being aware of the existence of the CX, conservation partners need to understand how it works and the benefits they may draw from it. Three years into the pilot, the following design elements of the Conservation Exchange have either been misunderstood in the early years or remain the source of uncertainty for some conservation partners:

- **Project selection.** How are projects selected for participation in the CX? What is the process and what are the criteria? What types of projects have been selected in the past? What types of projects have not been selected, and why?
- **Linkages with offsetting.** Can the estimated net positive biodiversity impacts certified through the CX be used to offset net negative biodiversity impacts in other endeavors?
- **Eligible organizations.** Who can participate as a conservation project proponent? Who can participate as conservation project funder?
- **Value proposition.** What can the CX do for me? How will participating in the CX add value to the work my organization is doing? What is the magnitude of this value? What help will ECCC's CX offer my organization to showcase its certified, voluntary contributions to nature conservation?
- **Rationale for a new metric.** There are multiple metrics and standards available to estimate, quantify, compare, and report on biodiversity baselines and changes- why do we need a new one? Why is ECCC spearheading this work?
- **Reported scores.** What do the scores mean in plain language? How should we, our partners, and our stakeholders interpret the estimated biodiversity benefits and assessed biocultural benefits? Can my conservation project get a low score, and if so, does it mean it's a bad project? How can my conservation project get a better score? Based on past CX projects, what score can we expect for our conservation project?
- **Responsibility for results.** Who is responsible for the realization of estimated biodiversity benefits? What happens if 20 years from now actual and estimated biodiversity benefits differ? Will long-term results impact certification in any way?
- **Reputational risks.** Does participation in the CX provide grounds for criticism of greenwashing? If so, what are these grounds and why? If not, why not? How can my organization use reported scores to communicate the expected positive impacts realized through our voluntary investments in nature conservation?

Although answers to the questions above are for the most part found in internal Frequently Asked Questions (FAQ) documents, these uncertainties seem to endure even amongst conservation partners familiar with the pilot. At the time of writing, these FAQ documents were not available for consultation on the CX webpage. Potential partners who become aware of the CX through the webpage are unlikely to understand how it works and how they could benefit from participation, given that very little information is provided.

Realization of reputational benefits

The certification process is designed in a way that allows for achievement of reputational benefits by ensuring businesses' voluntary contributions to nature conservation have the following attributes:

- **Quantified:** Investments in conservation have quantified expected outcomes, which provide information beyond expenditures.
- **Transparent:** Quantified conservation outcomes are made public, and the biodiversity benefit estimation protocol is open and subject to peer review.
- **Comparable:** Conservation outcomes are reported in scores that allow for project comparison.
- **Credible:** Expected conservation outcomes are science-based and are certified by the Government of Canada.

At the time of writing this report, if and how businesses realize reputational benefits out of their participation in the Exchange is entirely up to them. The CX can improve its value proposition by supporting the realization of reputational benefits.

The development of a public-facing ledger is a compelling option to consider in order to support the achievement of reputational benefits. A well-designed and maintained ledger would not only contribute to the CX's transparency, accountability, and credibility, but would also increase the visibility of businesses' contributions to conservation. Such a ledger could display key data points such as overall rankings & trends, funder-specific aggregate overall impact, and project-specific impact.

Due partly to its public nature, the ledger could stimulate positive competition among businesses investing in conservation: funders could reap reputational benefits year after year, by achieving the largest project-specific impact of the year, or by having contributed the largest overall impact since the inception of the CX. Ministerial announcements and news releases could further bring attention to businesses' positive impacts in nature conservation and build awareness of the ledger. These measures would also mitigate greenwashing risk, a [key concern for investors](#).

In addition to setting up and managing a public ledger, the CX could help achieve reputational benefits by providing businesses with guidelines for interpreting and communicating their certificate scores. For starters, it should be made clear that any positive value denotes a positive contribution. Over time, the aggregate values show a business' total voluntary contribution and commitment to nature conservation. Industry partners can fund several projects with smaller scores or a single project with a larger score, to

the same aggregate positive effect. To further support communication of certificate scores, the following two metrics could be added to the certificates of repeat participants: 1) the number of completed CX conservation projects to date; and 2) the cumulative score for CX projects to date.

It is expected that participation in the CX would be referenced in ESG annual reports developed for investors and stakeholders. The CX should ensure that the certificate's short companion document, which is currently in development, is designed appropriately to support the inclusion of complete and accurate information in reports, on public-facing websites, and in news releases, as well as to facilitate ESG audits.

Realization of financial benefits

Funders are also interested in the financial returns that could accrue from their voluntary investments in biodiversity conservation. According to a [2021 report](#) by the Coalition for Private Investment in Conservation, the lack of revenue-generating projects is the single most important barrier to increasing the levels of voluntary conservation funding. An internal report from the Sustainable Prosperity Institute concluded that the CX “is not likely to dramatically scale overall investment in nature *without further incentives*, [as] early adopters of the program are likely already investing in some kind of biodiversity action” (emphasis added).

Although the CX is not designed to provide financial benefits to businesses in exchange for their investments in nature conservation projects, there are programs and incentives that offer such rewards. Inasmuch as these programs and incentives are aligned with the CX and its goals, there is no reason why funders could not reap both reputational and financial benefits for the same conservation project, by participating in both the CX and another program.

The CX could increase businesses’ interest in financing nature conservation projects by drawing attention to and offering information on programs and incentives which are compatible with its goals. Additional work may be needed to establish explicit linkages with these programs and incentives. The following sustainable financing models could incentivize businesses to invest more in nature conservation and/or to participate in the Exchange:

- **Tax benefits for donation of land.** Where conservation projects are enabled by gifts of ecologically sensitive land, corporate landowners can participate in the [Ecological Gifts Program](#) to obtain tax benefits.
- **Conservation impact bonds.** Under this [financing model](#), when conservation projects are expected to generate demonstrable biodiversity benefits, there is an opportunity for impact funders to obtain a return on investment, paid by outcome funders. This model is currently at work in Canada at [Long Point Walsingham Forest Priority Place in Southern Ontario](#).
- **Resilience bonds.** When new natural infrastructure can both mitigate physical risks and improve nature conservation outcomes, there is an opportunity for funders to obtain a return on investment either in the form of reduced insurance liability or as a payment for contribution to

this reduction. This [financing model](#) is currently at work in Canada in [British Columbia, Ontario, and Quebec](#).

- **Government of Canada Green Bond Program.** The Government of Canada issues [green bonds](#) to generate proceeds, which are then allocated to a wide range of climate and environmental expenditures across federal departments and organizations. The inaugural green bond was issued in March 2022 and saw strong demand overall with an order book of over \$11 billion. Green and socially responsible investors represented more than 70 per cent of buyers.

3.2 Biodiversity benefits estimation process capacity to scale up

Key findings. The current process for estimating biodiversity benefits is not fit for high volumes of projects, due to limited availability of external experts. Options to adapt the process to a larger operational scale are being considered. The status quo would limit the CX's ability to make a significant contribution to closing the conservation funding gap in Canada.

According to pilot staff, the current biodiversity benefits estimation process is fit for five to ten projects per year. Currently, the key limiting factor is the availability and willingness of external experts to participate in the elicitation process. Experts' capacity to contribute to the CX may be limited further if other nature conservation programs also were to request their time and input.

CX staff are aware that the current biodiversity benefits estimation process is not fit for high volumes and are working at developing a more efficient assessment process that would work at a larger operational scale. A few options have been identified and are currently being considered:

- **Streamline external expert input.** The CX can take steps in the short term to reduce the workload for volunteer external experts by relying on internal expertise. ECCC wildlife and conservation scientists could undertake draft assessments and ask external experts to review and validate them instead of having external experts start the work from the very first step.
- **Establish an independent expert panel.** In the medium term, an independent expert panel could be established. If designed and implemented properly, it could help secure expert participation by providing professional and reputational benefits similar to those granted by the [Committee on the Status of Endangered Wildlife in Canada](#). Panel membership should be defined to secure relevant expertise and to address potential conflicts of interest.
- **Increase the use of predictive modelling.** In the longer term, the development of a data infrastructure to support modelling-based assessments could also reduce wildlife expert workload. This option would require significant upfront investment to develop a georeferenced database of species-level benefits estimates, informed by a comprehensive review of literature. Ongoing dataset maintenance and periodic revisions of the predictive models would also be required.

All three options above might be useful in adapting the estimation process to larger volumes and reducing project-level workload for external and internal experts. It should be noted that devolving the

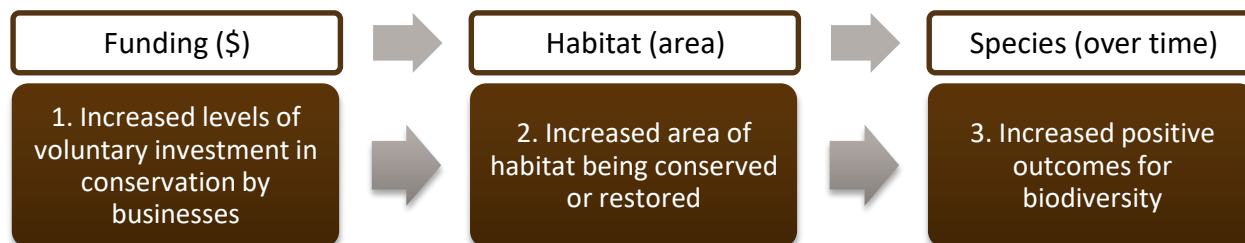
biodiversity benefits assessment to a funded third-party organization would not be an acceptable option for two key reasons. First, it's a model in which biodiversity benefit estimates are developed in exchange for payment, which creates a potential for conflict of interest that could undermine assessments' credibility. Second, if ECCC were to devolve responsibility for estimating biodiversity benefits, this could compromise the CX's core value proposition. As was clearly voiced by private-sector participants in the CX pilot, the certificate's reputational value hinges on ECCC's scientific and institutional credibility.

3.3 Impact beyond outputs is difficult to assess

Key findings. Although the Conservation Exchange is designed to increase levels of private-sector funding going to voluntary nature conservation projects, there is currently no way to reliably assess this expected impact. Data required for the computation of proxy impact measures are not currently available. Therefore, reporting on pilot performance is currently limited to outputs.

From its inception, the CX was conceptualized as an ambitious and innovative program which could fill a gap in Canada's nature conservation policy area. Its core objective is to increase the level of voluntary business investment in conservation, to help close Canada's conservation funding gap. As a result of these additional investments, it is expected that the aggregate area of natural habitat being conserved or improved would increase, which would in turn generate positive outcomes for biodiversity. See Figure 3 below for an illustration of this results logic.

Figure 3. Results logic for the Conservation Exchange



The CX pilot was designed to deliver on these high-level outcomes. Early implementation provides evidence of several positive project-level outputs as well as expected future biodiversity outcomes (which will be monitored), but these outputs and future outcomes cannot be confidently attributed to the CX as the pilot is not providing funding for conservation projects, nor is it delivering them on the ground. The reader can refer to **Error! Reference source not found.** in Section 1.3 for a summary of project-level outputs generated during the pilot.

To field test the Conservation Exchange idea on a small-scale, the pilot sought participation from known conservation partners. Projects that were submitted and approved for participation in the pilot were already in the pipeline and the CX played no part in the businesses' decision to fund these projects. This was largely unavoidable as good conservation projects take time to develop, and inviting applications during the early phase of the pilot meant working with projects that were already in progress. To increase the level of voluntary business investment in conservation, the CX will need to attract new and additional

conservation projects. However, it would be difficult if not impossible to assess the CX’s impact beyond outputs due to causal overdetermination and to the limitations of counterfactual comparisons.

Although CX’s contribution to the level of voluntary business investment in conservation cannot be known reliably, the following indicators have the potential of being measured:

- How much money is allocated to voluntary nature conservation by businesses across Canada;
- How do these investments trend over time; and
- How does the conservation funding gap evolve as a result of increased voluntary investment.

Figure 4 below presents a high-level performance measurement strategy which could be used or improved upon to account for the outputs and outcomes of the CX, with the caveat that there is no strong basis for impact attribution.

Figure 4. Potential high-level performance measurement strategy for the Conservation Exchange

Inputs	Outputs	Outcomes (immediate)	Outcomes (intermediate)	Outcomes (ultimate)
<ul style="list-style-type: none"> • Personnel • Operations 	<ul style="list-style-type: none"> • Number of funders (#) • Number of projects (#) • Total value of projects (\$) • Total estimated biodiversity benefits (#) 	<ul style="list-style-type: none"> • Private-sector investment in nature conservation is increased (\$) • Conservation funding gap is reduced (\$) • Habitat is conserved (area) • Habitat is restored (area) 	<ul style="list-style-type: none"> • Species-level biodiversity benefits are realized 	<ul style="list-style-type: none"> • Nature is conserved / recovered

The CX does not currently track private sector investment in nature conservation. Statistics Canada has information on the costs incurred by [Canadian industries to protect the environment](#), but this information is of limited use to establish a baseline and track progress for two main reasons. First, the measure does not track the reasons for expenditures. Therefore, it is not possible to determine whether expenditures are in response to current or anticipated regulatory requirements, to voluntary agreements or to ESG commitments. Second, the survey only targets Canadians resource and manufacturing industries, leaving out other economic sectors such as the financial and service sectors.

The CX could engage with Statistics Canada to design information products that meet the need for authoritative information on conservation finance in Canada. In the medium-term, the development, establishment, and adoption of [nature-related financial disclosures and associated metrics](#) might contribute to increasing the availability of information needed to assess, albeit indirectly, the CX’s impact.

3.4 Costs are high on a per-project basis

Key findings. The pilot has high project costs, driven by a need for personnel involvement in all stages of pilot projects. Although per-project costs are expected to be lowered should the Conservation Exchange continue to operate, variable costs and opportunity costs would accrue as participation levels increase.

Of the \$4.7 M allocated to the pilot over three years starting in 2021-2022, \$3.3 M was spent on designing the pilot, securing expert advice, conducting literature review, and developing the biodiversity benefit estimation process. A lower figure of \$1.3 M was spent on pilot projects, accounting for 26 % of total expenditures and putting the current average project cost at \$325 K for ECCC (with the caveat that no pilot projects are completed, so this is a low estimate of the average pilot project cost).

As stated above, initial design and implementation expenditures for the Conservation Exchange pilot are not recurring. When considering potential continued operations for the CX, the focus of analysis shifts to the per-project cost for ECCC. Based on projections shared by CX staff, the post-pilot average project cost is expected to be between \$45 K and \$61 K, which is 81 to 86 % lower than the \$335 K spent per project during the pilot. According to staff, project costs are not expected to vary much if at all with conservation project size or value – although costs might be higher for projects that have areas encompassing several habitats as this would increase the level of effort required to estimate biodiversity benefits. Table 5 breaks down projected project costs, under two scenarios.

Table 5. Annual costing for ongoing Conservation Exchange under two scenarios

	Scenario 1: Five projects per year	Scenario 2: Ten projects per year
Costing for administration	\$ 88,000	\$ 88,000
Costing per project	\$ 60,950	\$ 45,400
Total	\$ 392,750	\$ 542,000

Source: Costing provided by Conservation Exchange pilot staff.

Note: Projected annual projects costs are likely to be an underestimation given that O&M expenditures to support Indigenous capacity for projects that include an assessment of bio-cultural benefits, are not factored in (estimated at \$20,000 per project).

Projected annual program administration costs of \$88,000 are likely to be an underestimation given that they do not include the following costs, which are nevertheless considered by pilot staff: a one-time contract to assess how the CX fits with other financial mechanisms and tools, and to provide policy support (estimated at \$40,000); a term position for a postdoctoral researcher to refine and streamline the biodiversity benefits estimation process (estimated at \$91,150 per year); and contribution funding to support the continued development of a multi-sectoral Canadian stakeholder center, called the [Nature Investment Hub](#), to stimulate new public and private investment in nature conservation (estimated at \$50,000 per year). Furthermore, additional spending might be required to address key challenges highlighted in this report.

As discussed in previous sections, we do not know for certain whether – and if so, to what extent – the CX can drive more private-sector funding into voluntary nature conservation projects. Therefore, we

cannot conclude with confidence that government resources allocated to the CX directly deliver conservation outcomes. In addition, the Exchange's promise lies in its ability to create a network effect, which is expected to not only lead to an increase in the number of participating partners and projects (and net-positive conservation outcomes, irrespective of attribution), but also to an increase in variable operating costs for ECCC. Continuing with the scaling-up scenario introduced above, certifying 50 projects a year at \$45 K per project would potentially cost ECCC \$2.25 M every year.

Because the causal linkage between CX spending and the increase in voluntary business investments in conservation projects is unverified, ECCC should exercise extra diligence in ensuring careful stewardship of public resources. The following options could be considered to contain operational expenditures and ensure value for money:

- **Streamline design and delivery.** The largest portion of project-specific spending is allocated to CX personnel involved in the assessment of biodiversity benefits. Efforts currently underway to streamline the biodiversity benefits estimation process are likely to reduce per-project costs. Investments will likely be required in the short term to improve on the current process and increase cost-effectiveness.
- **Increasing the spending-to-investment ratio.** Businesses contributed between \$12 K and \$300 K to the total value of conservation projects that participated in the pilot. Expressed as a ratio, ECCC spent on average \$1 per project for every \$0.47 invested by businesses. To ensure value for money, the CX might consider adopting an investment ratio threshold for conservation projects to participate in the Exchange. This additional selection criterion would ensure that the Exchange allocates resources to projects that contribute significantly to reducing the conservation funding gap.
- **Recovering costs from services provided.** Certification services provided to businesses through the CX could be fully or partially cost-recovered should business volume increases significantly and departmental resource allocation is not sufficient to support growth. The viability of this option is dependent on a robust demand for participation in the CX which is not deterred by additional costs. The lower ECCC spending is compared to funders' investment, the less likely private-sector conservation partners would be deterred by these costs. Full cost-recovery could be considered for conservation projects which do not meet the aforementioned threshold ratio.

Ultimately, ECCC management should have a clear understanding of the opportunity cost of running the Conservation Exchange. Resources allocated to the CX are not available to fund other conservation programs with direct outcomes for biodiversity, such as ECCC's [Protected Areas program](#) or the [Natural Heritage Conservation funding program](#). As the CX scales up, the opportunity cost becomes larger. At the same time, the conservation funding gap remains a real issue and there is widespread consensus that delivering on Global Biodiversity Framework targets will require a substantial ongoing, cross-sectoral, pan-Canadian effort.

4. Opportunities

Beyond its current objectives, the Conservation Exchange is presented with a few opportunities to achieve incremental results for nature conservation. Additional resources would likely be required in the short- and medium-term to seize the following opportunities.

4.1 Assess the applicability of biodiversity benefits estimation to other conservation programs

Key findings. The biodiversity benefits estimation process developed for the Conservation Exchange could be used in several applications within ECCC and beyond. Exploring these applications would leverage departmental investments made to date in the pilot and promote standardized and transparent assessments of biodiversity benefits across programs and sectors.

Given the magnitude of the current conservation funding gap, a decision to fund any given conservation action entails an implicit decision to forego funding other actions. Nevertheless, halting and reversing nature loss requires that spending and investment be directed to conservation measures and projects which are likely to have the largest positive impact. The biodiversity benefits estimation process developed for the CX was designed to support exactly this instance of decision-making under uncertainty, in order to enhance the effectiveness and efficiency, as well as transparency and accountability of conservation expenditures.

The process and indicator developed by the Conservation Exchange could support decision-making for species at risk recovery planning as well as for area-based conservation. In species recovery planning, a consistent system to prioritize recovery actions and determine how to allocate funding is desirable. The benefits-estimation approaches used in the Conservation Exchange can be used to determine the effectiveness of proposed conservation actions. In area-based conservation, it is essential to understand how conserving and protecting natural habitats is expected to benefit species. Without the benefit of insights into expected biodiversity impacts compared to baseline trends, area-based conservation decisions tend to focus on area size and securement cost, which can lead to suboptimal resource allocation and results. While other approaches exist to estimate the benefits of conservation actions, the CX biodiversity benefit metric differs from other approaches being developed and implemented around the world, such as [Priority Threat Management](#), in that the approach for scaling benefits allows for direct comparisons across projects.

At ECCC, the Wildlife Assessment and Information Directorate, the Environmental Assessment Directorate, and the Priority Places & Sectors Division all have expressed interest in the CX biodiversity benefit metric to support their work. There is additional potential to use the biodiversity benefit estimate to inform assessment and selection of projects applying for contribution funding programs, as well as to support biodiversity offsetting for regulatory compliance.

Exploring these applications would leverage departmental investments made to date in the Conservation Exchange pilot and promote standardized and transparent assessments of biodiversity benefits across

programs and sectors. Should the workload associated with the biodiversity benefits estimation process not be shared across teams, its widespread application would increase CX staff workload and likely require additional dedicated resources. Potential efforts to improve the process so that it can handle larger CX request volumes would also benefit additional applications. It is also necessary to confirm the availability of experts, who provide key inputs to the biodiversity benefits estimation process.

4.2 Leverage effectiveness monitoring

Key findings. The Conservation Exchange is not monitoring the effectiveness of participating conservation projects, but conservancies responsible for delivering the projects are. Monitoring information could be used to improve biodiversity benefits estimation, which could in turn strengthen the Exchange's credibility and increase reputational benefits for corporate partners.

Conservation outcomes are achieved – or not – over time. For the purposes of making decisions under uncertainty and increasing private-sector investments in nature conservation, it is not practical to wait for benefits realization before issuing a certificate. For all intents and purposes, verifying project completion as per the agreed-upon plan gives CX staff sufficient assurance that conditions which will lead to the realization of estimated biodiversity benefits are met.

Conservancies responsible for delivering conservation projects on the ground also commit to monitoring project effectiveness, a standard operating procedure of their business model. In concrete terms, conservancy staff monitor project sites over time, documenting in the process several conservation outcomes caused by the original intervention and possibly from additional environmental and human factors. Over time and across projects, data points obtained from direct observation in the field provide granular, high-validity evidence and enable statistical analysis. Under the current Conservation Exchange design, this valuable information resource is the sole property of participating conservancies.

To improve understanding of conservation actions' effectiveness and to improve biodiversity benefits estimation for future projects, the CX should enter into information-sharing agreements with conservancies to obtain long-term actual outcomes data. In addition, standardized monitoring protocols and metrics could be co-developed with participating conservancies to ensure data collected across several projects is comparable. Consideration could also be given to making this database open by default, as per the [Directive on Open Government](#), as well as to having ECCC occasionally contribute to monitoring efforts in order to build and share expertise across sectors.

Leveraging effectiveness monitoring data to improve biodiversity benefit estimates would not only better support decision making under uncertainty, but also increase the Exchange's credibility and potentially the reputational benefits that are sought by corporate partners. Furthermore, if established, open databases rich in region-specific habitat and species data could significantly reduce the cost of assessing site feasibility and developing siting plans for conservation partners. In turn, this could translate into more conservation projects in the pipeline, ready for delivery once funding is secured. Finally, a

sufficiently large database could greatly streamline the CX biodiversity benefits estimation process, by being a source of information that experts could verify rather than having experts create new estimates.

4.3 Diversify corporate participation beyond resource sectors

Key findings. The Conservation Exchange would likely benefit from engaging with firms from the financial and service sectors to mobilize additional private investments in nature conservation and to strengthen its value proposition for potential participants.

ECCC's relationship with Canadian corporate sectors is shaped by the department's extensive regulatory mandate, which focuses on mitigating climate change, preventing and managing pollution, and conserving nature. The pilot rightly focused on private-sector partners with whom some degree of relationship was already established: firms in the mining, oil and gas, and forestry sectors. In addition, investment in conservation can be easier to pitch to companies that have a tangible environmental footprint and that have done conservation and remediation work in the past, including to comply with regulatory obligations.

Looking ahead beyond the pilot and towards program establishment, there is untapped potential in engaging businesses in the financial and service sectors. Corporations in the financial sector such as responsible investors, impact investors, and pension funds administrators are likely to have well established ESG commitments, including signed commitments on biodiversity. Although service sector firms typically do not have a large biodiversity footprint as a result of their direct operations, they may nevertheless have ESG goals and be interested in investing in nature conservation.

Corporations from the financial and service sectors command large amounts of capital. A modest portion of this wealth could contribute significantly to closing the conservation funding gap. In addition, getting key actors in these sectors to participate in the CX could have a major effect on peers, helping to create the network effect which is key to the Exchange having a significant impact on national conservation outcomes.

Additionally, engaging with banks and other investing firms could increase the CX's value proposition for other potential funders. If large institutional investors come to recognize the Exchange as a credible enabler and certifier of positive conservation outcomes, they might direct capital to firms which can show they deliver on their biodiversity commitments through participation in the CX. It follows that, in addition to gaining reputational benefits, businesses participating in the CX may secure access to investment funding.

Because there are little to no existing relationships with financial or service sector corporations to leverage, ECCC would likely need to allocate senior official time to kickstart partnerships for conservation. Partnerships established with firms from these sectors for climate change mitigation could potentially be leveraged to extend an invitation to participate in the CX.

4.4 Contribute to sustainable finance norm- and rule-making

Key findings. The ongoing global transition to a sustainable finance sector aligned with environmental goals could position the Conservation Exchange for substantial positive impacts. To seize this opportunity, the Exchange should consider developing internal expertise in sustainable finance and participate actively in shaping nature-related disclosure norms and standards for publicly traded corporations.

Sustainable finance is a rapidly evolving field, as attested by the recent example of climate change related financial disclosures. Initially, reporting to investors and stakeholders on climate-related dependencies, impacts, risks, and opportunities was a voluntary best practice for ESG-minded corporations. Increasingly, disclosures are becoming mandatory for publicly traded corporations, including in Canada as outlined by the Government in [Budget 2022](#).

The global [Taskforce on Nature-related Financial Disclosures](#) was launched in 2021 with the aim of supporting a shift in global financial flows away from nature-negative outcomes and toward nature-positive outcomes. The Taskforce is currently developing recommendations and guidance for organizations to report and act on evolving nature-related dependencies, impacts, risks, and opportunities. As of [January 2024, 320 organizations from over 46 countries have committed](#) to start making voluntary nature-related disclosures based on the [Recommendations of the Taskforce on Nature-related Financial Disclosures](#). This first cohort of adopters of the Recommendations includes publicly listed companies across geographies and industry sectors representing US\$ 4 trillion in market capitalization, over 100 financial institutions representing US\$ 14 trillion in Assets under Management (AUM), as well as banks, insurers, and other leading market intermediaries such as stock exchanges and audit and accounting firms.

Experts in the field of sustainable finance are expecting that a similar shift from voluntary to mandatory disclosures will happen in the coming years across the globe for environmental impacts beyond climate change. In January 2023, the European Union adopted [biodiversity reporting requirements](#) for corporations, making it the first jurisdiction in the world to do so and paving the way for other state actors to align financial markets with environmental conservation and restoration goals.

Businesses are increasingly paying attention to this changing investment and reporting context. A growing number of firms are realizing that they will likely have to comply with [climate-related](#) and [nature-related](#) disclosure obligations in the future, and that they will have to report on them by using robust, validated, and recognized metrics. Current [biodiversity commitments from companies are rare](#) and are often not specific enough to allow enable accountability controls. The CX value proposition aligns with the Recommendations of the Taskforce on Nature-related Financial Disclosures and can help businesses comply with them on a voluntary basis.

The Conservation Exchange is currently focused on its policy rationale: incentivizing new private-sector investments in conservation projects to improve area-based conservation outcomes in Canada. It may well be that CX's potential for scaling up and achieving significant conservation outcomes is critically

contingent upon the development of sustainable finance norms, rules, and standards. In other words, structural changes in the regulation of financial markets are more likely to help the CX achieve high levels of participation, than allocating incremental resources to outreach activities. However, the latter is important in the short to medium term to generate a network effect and to be poised for faster growth when the sustainable finance transition picks up speed.

It follows that in order to benefit maximally from the transformations currently underway in the financial sector, ECCC would do well to build capacity to work effectively in this space. To strengthen this capacity, officials may consider the following options:

- **Develop internal capacity.** Currently the CX is reliant on external expertise for advice on matters of sustainable finance. While external support can be useful, the pilot team has no ability to independently assess received advice. Developing a permanent internal expertise in sustainable finance would offer a complementary perspective to the dominant policy focus, one that offers more insight into businesses' drivers, expectations, and constraints.
- **Have peer-to-peer conversations with industry.** If the CX is to scale significantly, outreach to potential participants cannot always be driven by senior executives, due to time and resource constraints. Collaboration on conservation with business partners requires a team competency approach where each CX staff member can work effectively with ESG staff from corporations of various sizes and from all economic sectors.
- **Liaise with other federal organizations.** Several federal organizations have both the mandate and the expertise to regulate, monitor or otherwise influence the financial sector, including the [Department of Finance Canada](#), the [Bank of Canada](#), and the [Office of the Superintendent of Financial Institutions](#). CX sustainable finance experts would do well to participate in federal public administration communities of practice to stay informed on developments and to ensure that federal organizations align their respective and collective roles in shaping the transition to a sustainable finance sector, including through the definition of norms, rules, and standards for nature-related financial disclosures.

5. Lessons Learned and Management Response

The following lessons learned are addressed to the Assistant Deputy Minister of the Canadian Wildlife Services, as the senior departmental official responsible for the Conservation Exchange pilot. Because the Exchange is not an ongoing program, there are no recommendations made in the report, and management is not required to provide an action plan. The lessons learned aim to support reflection and discussion on the future of the Conservation Exchange.

5.1 Lessons learned

Lesson learned 1

The Conservation Exchange is a relevant and timely intervention for ECCC.

Report findings that support the lesson learned

Corporate investment in voluntary biodiversity conservation projects is increasing in Canada, matching the global trend. Over the last 18 months, the top 10 Canadian firms by market capitalization have overall increased their financial contributions to nature conservation and their biodiversity disclosures.

Governments are uniquely positioned to enable private sector investments in biodiversity conservation. Although only a small fraction of private sector investments in nature conservation is currently spent through voluntary contributions, this proportion is expected to increase in response to policy signals and to evolving financial norms and rules.

The Conservation Exchange pilot is an innovative approach to supporting conservation in Canada which provides enabling conditions for voluntary private sector investments in nature conservation. The CX provides value to private-sector funders of voluntary conservation projects by ensuring their contributions can translate into reputational benefits. In addition, participating in the Exchange entails a low participation cost for businesses and conservancies.

Lesson learned 2

Delivery and design should be strengthened to maximize impact.

Report findings that support the lesson learned

While the Conservation Exchange pilot is delivering on its original implementation plan, it is unlikely to produce nationally significant positive conservation outcomes under the current design and delivery model. To demonstrate that it can make a significant contribution, the CX needs to scale up in the short

to medium term. The CX also needs to define what success looks like in terms of closing Canada's conservation funding gap, to best focus efforts and resources.

Options to strengthen delivery and design and create conditions for high demand include: increasing businesses' awareness and understanding of the Exchange; supporting the realization of reputational benefits for participating businesses; and increasing businesses' awareness of financial benefits that are available to them and compatible with CX certification. ECCC should also invest time and effort to diversify corporate outreach and participation beyond resource-sector businesses. The CX should also continue its work to adapt the biodiversity benefits estimation process to work at a larger scale.

Moving forward, the Conservation Exchange should also consider making biocultural benefits assessment mandatory for conservation projects developed with Indigenous partners, with the caveat that Indigenous partners can decline to participate in the assessment without compromising a project's participation in the Exchange. This would strengthen alignment with the Government of Canada's and ECCC's commitment to support Reconciliation while respecting Indigenous partners' capacity and interest to participate into those assessments.

Lesson learned 3

More effort, data, and time are needed to assess results.

Report findings that support the lesson learned

Considerable additional effort is required to create general conditions needed for closing Canada's conservation funding gap. ECCC should contribute actively to norm- and rule-making in sustainable finance, and help the sector mature in ways that are aligned with the Government of Canada's commitment to halt and reverse nature loss, and to achieve a full recovery for nature. In addition to the expertise developed and the partnerships established through the pilot, the current make-up of the Conservation Exchange team should be supplemented with personnel that has demonstrated sustainable finance knowledge and expertise.

In addition, the Exchange should develop a robust performance measurement strategy to account for impacts beyond outputs. Project-level outputs are an important source of performance information, but they are not sufficient to assess expected program contribution to closing the conservation funding gap in Canada. Leveraging long-term effectiveness monitoring would also help to strengthen biodiversity benefits estimation and lend even more scientific credibility to the CX's value proposition. Finally, monitoring delivery costs closely would enable future cost-effectiveness assessments, including comparison with conservation programs designed to achieve similar goals.

It is too early to assess whether the Conservation Exchange can deliver a significant contribution to Canada's ambitious nature goals. Success is uncertain and depends on several contextual factors which

ECCC does not have control over but can only influence to some degree. Incremental effort, additional data, and more time would be needed to achieve the Conservation Exchange's potential and assess its results.

5.2 Management Response

The Assistant Deputy Minister of the Canadian Wildlife Service (CWS) appreciates the analysis undertaken by the Evaluation team, acknowledges the lessons learned, and commits to take them into consideration in work plans for the Conservation Exchange Pilot extension and, if the extension of the Exchange is successful, any request for continuation as part of the Enhanced Nature Legacy renewal.

The CWS will consider options to strengthen the design and delivery of the Conservation Exchange Pilot that would allow for the scaling up of the number and expected biodiversity impact of projects. The CWS is working with ECCC's Science and Technology Branch (STB) to streamline the assessment process. Refinement and adaptation of the methods, along with the potential development of supporting data infrastructure, could streamline the evaluation process. The CWS is also collaborating with the STB to explore strategies to align with other departmental initiatives and this work could support assessment of impacts. Conservation impacts occur over time, and Conservation Exchange staff will also seek information as appropriate from the conservation organizations involved in pilot projects to better understand and communicate the long-term effectiveness of the projects.

The CWS will review and update engagement and communication plans to better reach key stakeholders in the business sector. For the extension of the pilot, we are already seeking to encourage participation from other businesses beyond the resource sector.

The CWS recognizes that more effort, data, and time are needed to assess the potential impact of the Conservation Exchange Pilot. The CWS has extended the Conservation Exchange Pilot until the end of March 2026 and is exploring program best-fit options to enable access and input from ECCC personnel that have demonstrated conservation finance knowledge and expertise. The CWS will explore ways in which it can contribute actively to norm- and rule-making in sustainable finance, to help the financial sector better align with the Government of Canada's commitment to halt and reverse nature loss by 2030 and achieve a full recovery for nature by 2050. The Conservation Exchange Pilot presents a real opportunity for ecosystem restoration, positive biodiversity outcomes, and resource mobilization, creating linkages to multiple Global Biodiversity Framework themes and contributing to several targets.

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