



Government  
of Canada

Gouvernement  
du Canada

Canada



# ACHIEVING A SUSTAINABLE FUTURE

**DRAFT FEDERAL SUSTAINABLE  
DEVELOPMENT STRATEGY**

2022 TO 2026

Cat. No.: En4-136/2022E-1-PDF

ISBN: 978-0-660-42243-5

Unless otherwise specified, you may not reproduce materials in this publication, in whole or in part, for the purposes of commercial redistribution without prior written permission from Environment and Climate Change Canada's copyright administrator. To obtain permission to reproduce Government of Canada materials for commercial purposes, apply for Crown Copyright Clearance by contacting:

Environment and Climate Change Canada

Public Inquiries Centre

7<sup>th</sup> Floor, Fontaine Building

200 Sacré-Cœur Boulevard

Gatineau QC K1A 0H3

Telephone: 819-938-3860

Toll Free: 1-800-668-6767 (in Canada only)

Email: [enviroinfo@ec.gc.ca](mailto:enviroinfo@ec.gc.ca)

Photos: © Environment and Climate Change Canada

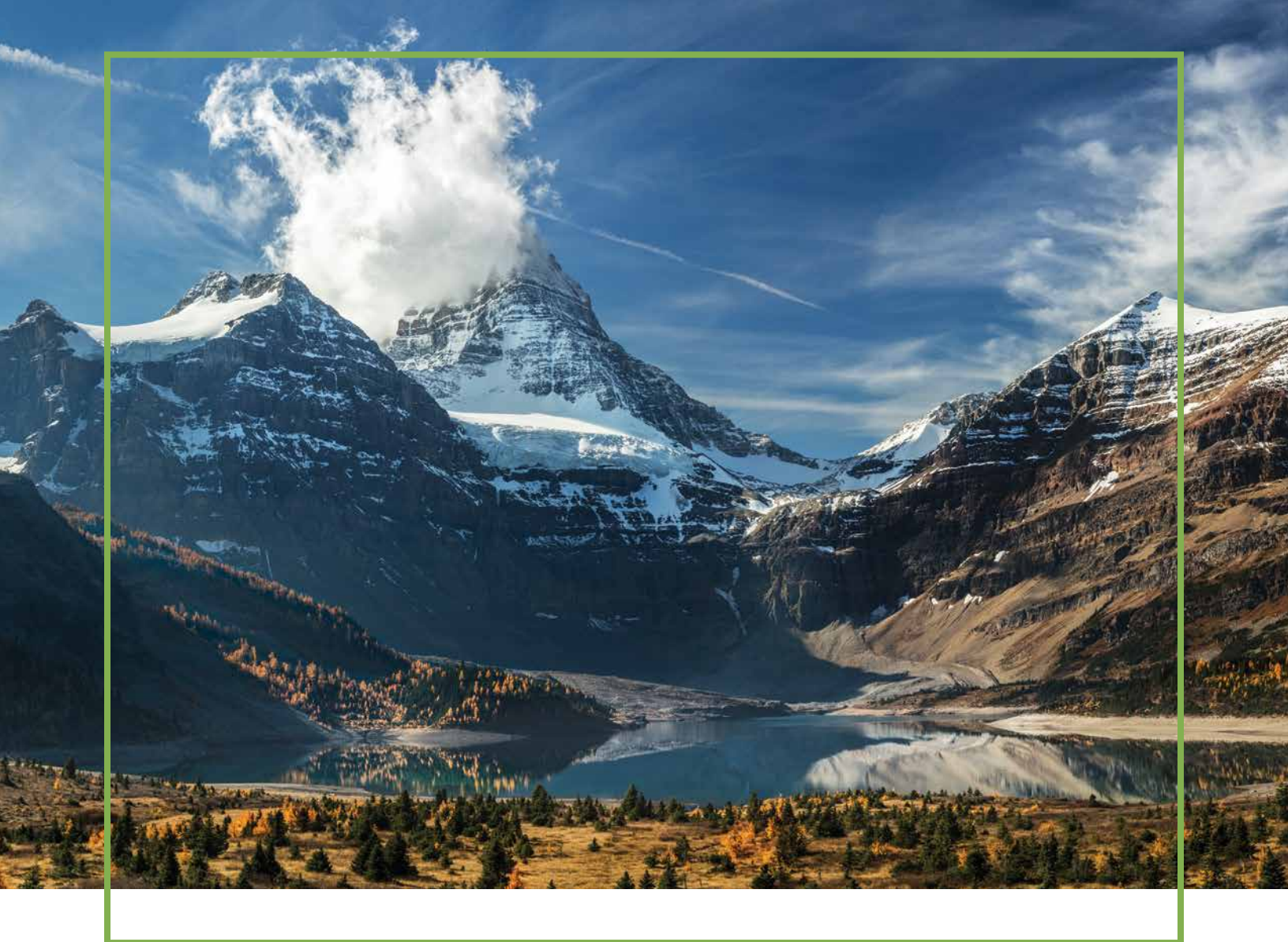
© Her Majesty the Queen in Right of Canada,  
represented by the Minister of Environment and Climate Change, 2021

Aussi disponible en français

# TABLE OF CONTENTS

MESSAGE FROM THE MINISTER .....	4
EXECUTIVE SUMMARY .....	6
INTRODUCTION .....	8
Chapter 1: Support Canadians' Preparedness for Natural Disasters and Emergencies.....	21
Chapter 2: Support A Healthier and More Sustainable Food System .....	28
Chapter 3: Protect Canadians from Air Pollution and Harmful Substances.....	36
Chapter 4: Publicize Research, Knowledge and Data for Sustainable Development.....	45
Chapter 5: Promote Canadian Women's Participation in the Environmental and Clean Technology Sector .....	53
Chapter 6: Ensure Clean and Safe Water for All Canadians .....	60
Chapter 7: Increase Canadians' Access to Clean Energy .....	69
Chapter 8: Encourage Inclusive and Sustainable Economic Growth in Canada.....	79
Chapter 9: Foster Innovation and Green Infrastructure in Canada.....	87
Chapter 10: Take Action on Environmental Inequalities and Collaborate on Environmental and Natural Resource Management.....	96
Chapter 11: Improve Access to Transportation, Parks, and Green Spaces, as well as Cultural Heritage in Canada .....	108
Chapter 12: Reduce Waste and Transition to Zero-Emission Vehicles .....	116
Chapter 13: Take Action on Climate Change and Its Impacts .....	125
Chapter 14: Conserve and Protect Canada's Oceans.....	139
Chapter 15: Protect and Recover Species, Conserve Canadian Biodiversity .....	149
Chapter 16: Enforce Environmental Laws, Manage Impacts, and Evaluate Sustainable Development Activities .....	163
Chapter 17: Strengthen Partnerships to Promote Global Action on Sustainable Development.....	170
ANNEX 1: About the Federal Sustainable Development Strategy.....	178
ANNEX 2: Performance Measurement .....	182
ANNEX 3: Responsibilities of Federal Organizations .....	203
ANNEX 4: Sustainable Development Goals.....	230





## MESSAGE FROM THE MINISTER

I am pleased to share the draft 2022 to 2026 Federal Sustainable Development Strategy for your input and ideas.

This draft strategy is important in many ways. It is the first to be developed under the strengthened *Federal Sustainable Development Act*, which reflects a higher level of ambition, raises the bar for transparent and accountable sustainable development decision making, and has expanded the number of participating federal organizations from 28 to 99. It is also the first draft strategy to be produced since we announced our commitment to reduce greenhouse gas emissions by 40 to 45% below 2005 levels by 2030, and to halt and reverse nature loss in Canada by 2030.

The draft strategy brings together priorities and actions from across government to advance sustainable development in Canada. It outlines targets and measures to ensure the future we want for our children and our grandchildren, with a focus on the environmental aspects of the 17 Sustainable Development Goals of the 2030 Agenda for Sustainable Development. It shows how 99 organizations across the federal government will work together to promote a clean environment and tackle the crises of climate change and biodiversity loss, all while growing our economy and making sure that no one is left behind. It also shows how the Government of Canada leading by example by transitioning to net-zero carbon and climate-resilient operations by 2050.

The Federal Sustainable Development Strategy is informed by principles outlined in the strengthened Act. These principles shape the strategy and give it direction. They include recognizing that sustainable development is a concept that continuously evolves in response to new and emerging issues. The draft strategy also reflects the principle of intergenerational equity, or the ability of present generations to meet their needs without comprising the ability of future generations to meet their needs. And it supports openness and transparency and a results and delivery approach. This means bringing federal environmental sustainability targets across all 17 Sustainable Development Goals together in one place, and requiring all of the strategy's targets to be specific and measurable, with clearly identified indicators, time frames, and baselines for future reporting.

Now is a critical time. In the face of a global pandemic, unprecedented biodiversity loss, extreme climate events affecting Canadians from coast to coast to coast, and a worldwide shift to a clean economy, solving the interrelated environmental, social and economic challenges of sustainable development has never been more important. The Government of Canada's commitment to achieving sustainable development is reflected in this draft strategy and in [Moving Forward Together: Canada's 2030 Agenda National Strategy](#). By focusing on the environmental aspects of the 17 Sustainable Development Goals, this draft strategy complements the actions of federal organizations to advance all 3 pillars of sustainable development in the United Nations 2030 Agenda.

The draft 2022 to 2026 Federal Sustainable Development Strategy is part of an ongoing conversation, and your perspectives will help shape and improve our strategy. This is your chance to have your say and help inform the government's approach to sustainable development, making it even bolder and more ambitious.

Much work to advance sustainable development is underway, but much will change as the government defines new directions. The draft strategy will be refined in the coming months to reflect the full range of the government's sustainable development commitments, including those set out in ministerial mandate letters.

I look forward to hearing your thoughts and ideas over the next 4 months as we finalize the 2022 to 2026 Federal Sustainable Development Strategy and table it in Parliament. I also look forward to continuing the conversation in the coming years as we continue to take action for a cleaner, greener, and more resilient Canada.



**THE HONOURABLE STEVEN GUILBEAULT, P.C., M.P.**  
MINISTER OF ENVIRONMENT AND CLIMATE CHANGE

# EXECUTIVE SUMMARY

## THE DRAFT 2022 TO 2026 FEDERAL SUSTAINABLE DEVELOPMENT STRATEGY: WHAT'S NEW

- A strengthened *Federal Sustainable Development Act* that promotes a broader view of sustainable development, supports a whole-of-government approach and introduces new requirements to ensure transparency and accountability
- A new frame for the draft strategy based on the 17 Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda for Sustainable Development, with a focus on the environmental aspects
- 99 federal organizations will play a role in achieving the draft strategy's goals and targets
- All targets are specific and measurable, include a time frame, identify one or more ministers responsible for achieving them, and are consistent with the principles set out in the Act
- "Where the Government of Canada is going" sections in each chapter show how new commitments and priorities will advance the environmental aspects of the SDGs
- Call-out boxes in each chapter highlight how environmental sustainability issues affect diverse communities in Canada, including Indigenous peoples
- Although a domestic strategy, each chapter makes links to corresponding environmental targets in the 2030 Agenda's Global Indicator Framework

The draft 2022 to 2026 Federal Sustainable Development Strategy (FSDS, the draft strategy) sets out the Government of Canada's sustainable development goals and targets and outlines implementation strategies and short-term milestones for achieving them, from an environmental perspective. It provides a whole-of-government view, bringing programs, priorities and actions to advance sustainable development together in one place. This draft strategy is the first step in establishing the Government of Canada's environmental sustainability plan for the next 4 years. New commitments that are currently being defined will be reflected in the final strategy following public consultation.

While this draft will become the fifth Federal Sustainable Development Strategy, it is the first to be developed under an amended *Federal Sustainable Development Act* (the Act), improving accountability through time-bound targets and milestones as well as whole-of government participation across 99 federal organizations.

It is also the first draft strategy oriented toward the 17 Sustainable Development Goals (SDGs) of the [United Nations 2030 Agenda](#), with a focus on their environmental aspects. The Government of Canada has committed to work with all partners to accelerate progress on the 17 SDGs in Canada and contribute to their achievement internationally.

Framing the draft strategy around the 17 SDGs supports a unified approach to sustainable development within the Government of Canada and shows how the strategy's targets, milestones and actions contribute to advancing the SDGs. It also responds to past recommendations from parliamentarians, the Commissioner of the Environment and Sustainable Development and Canadians, and ensures that the draft strategy respects Canada's domestic and international sustainable development obligations, as outlined in the Act.

The draft 2022 to 2026 strategy complements actions of federal organizations to advance the United Nations 2030 Agenda for Sustainable Development by committing to environmentally focused goals, targets, and milestones supported by indicators to measure their progress, and contributes to implementing [Moving Forward Together: Canada's 2030 Agenda National Strategy](#). Each chapter is influenced by the Agenda 2030 Global Indicator Framework or the 2030 National Strategy's Canadian Indicator Framework.

The draft strategy shows the complex interrelationships between the environment, and economic and social dimensions of sustainable development, including issues such as poverty, education and gender equality. It touches on themes that cut across the environmental aspects of social and economic SDGs, such as sustainable food production, enhancing food security in Indigenous and northern communities, promoting gender equality in the clean technology sector, and financing low-carbon, climate-resilient development in low and middle-income countries.

Public comments will help shape the final version of the strategy and ensure that its targets, milestones, and actions reflect the priorities of Canadians. Your comments will strengthen the strategy and help inform the Government of Canada's sustainable development priorities.

We also invite you to show us what a sustainable Canada looks like by entering our photo contest. Winning submissions will be featured in the final 2022 to 2026 FSDS and the photographer(s) will be profiled in the strategy.

Comments on the draft strategy will be accepted until July 9, 2022. The final 2022 to 2026 Federal Sustainable Development Strategy will take into account these comments and reflect new and evolving Government of Canada priorities. We will also continue the conversation after the strategy is tabled in Parliament. Three years later, keep an eye out for a report on progress of the strategy's goals, targets and milestones. You can also follow annually what actions federal organizations are taking to support the strategy's goals and/or targets by looking at their departmental sustainable development strategies and reports that are tabled in Parliament.





# INTRODUCTION

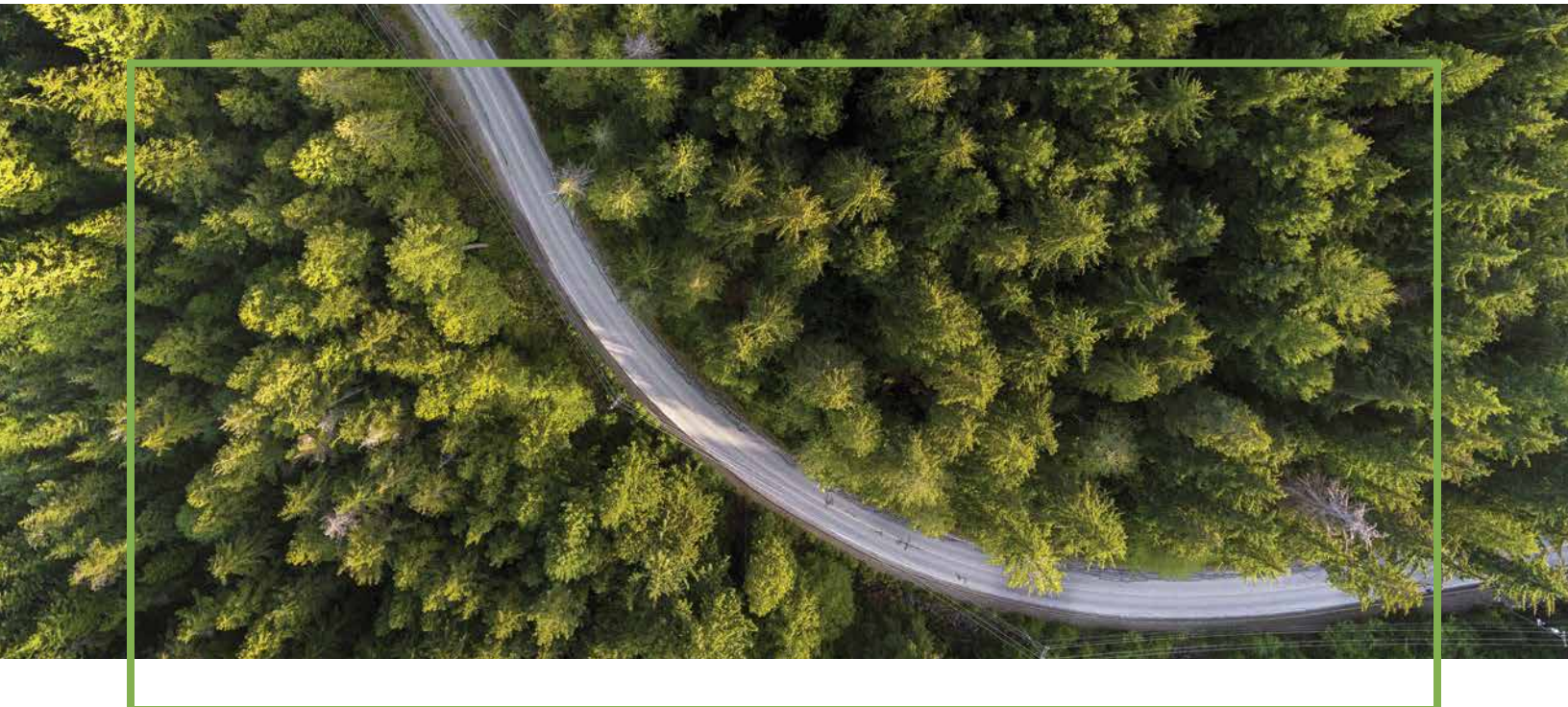
The draft 2022 to 2026 Federal Sustainable Development Strategy (FSDS, the draft strategy) is the first to be developed under a strengthened *Federal Sustainable Development Act* (the Act). Taking a whole-of-government approach, it sets out Government of Canada sustainable development goals, targets, milestones and implementation strategies from an environmental perspective. Unless stated otherwise, information in the draft strategy is current as of February 1, 2022.

The draft 2022 to 2026 strategy supports Canada's efforts to advance the 17 Sustainable Development Goals (SDGs) of the [United Nations 2030 Agenda for Sustainable Development](#). With the 17 SDGs as its frame, the draft strategy shows what the Government of Canada will do over the next 4 years to support the environmental aspects of the SDGs.

## **Strengthening Transparency and Accountability: The *Federal Sustainable Development Act***

Since 2008, the Act has required the Minister of Environment and Climate Change to table and report on a Federal Sustainable Development Strategy every 3 years.

Environment and Climate Change Canada has worked with other federal departments and agencies to develop 4 strategies (covering 2010 to 2013, 2013 to 2016, 2016 to 2019, and 2019 to 2022). Each has built on the one before, reflecting new federal priorities, improved measurement of environmental performance, and comments from Canadians, as well as reviews by the Commissioner of the Environment and Sustainable Development and parliamentary committees.





In 2020, amendments to the Act came into force. They responded to a 2016 review of the Act by the House of Commons Standing Committee on Environment and Sustainable Development. The committee's review highlighted ways in which changes to the Act could facilitate more effective sustainable development strategies.

The amendments have broadened the Act's scope and reach. Its focus has shifted from the environment alone to also include social and economic aspects of sustainable development. The Act's purpose now goes beyond transparency and accountability to include advancing sustainable development in Canada with a view to improving the quality of life of Canadians. New principles have been added to guide the strategy's development and departmental sustainable development strategies.

The amendments also promote a whole-of-government approach. The number of federal organizations required to contribute to the strategy has increased from 28 to 99. This approach provides a comprehensive view of federal sustainable development action and ensures that organizations across government work toward common goals and targets.

Transparency and accountability remain central to the Act. Beginning with the 2022 to 2026 Federal Sustainable Development Strategy, all targets must be measurable and include a time frame. Federal organizations will also be required to report on how they are implementing their own sustainable development strategies.

The amendments support an ongoing dialogue with Canadians. The role of the Sustainable Development Advisory Council, originally established under the 2008 *Federal Sustainable Development Act*, has been revised to ensure the council can advise the Minister of Environment and Climate Change on a range of sustainable development issues. The number of seats on the council that are reserved for representatives of Indigenous peoples has been doubled from 3 to 6. The Act also includes a new requirement for federal organizations to consider public comments when preparing their own sustainable development strategies.

The draft 2022 to 2026 strategy reflects the strengthened *Federal Sustainable Development Act*. In particular:

- through a new frame focused on the environmental aspects of all 17 SDGs, it shows the complex interrelationships between the environment, economy and society
- all 99 departments and agencies included in the Act's schedule were engaged in developing the draft and will play a role in implementing the strategy
- each target included in the draft strategy is supported by an indicator to measure progress, includes a time frame, and identifies a responsible minister

## DEPARTMENTAL SUSTAINABLE DEVELOPMENT STRATEGIES

Under the Act, each federal organization that is required to contribute to the Federal Sustainable Development Strategy must prepare its own departmental sustainable development strategy within one year after the federal strategy is tabled. These complement the federal strategy by setting out what individual organizations will do to support its goals and targets. In preparing their strategies, federal organizations must consider comments from partners, stakeholders and Canadians provided during public consultations on the draft Federal Sustainable Development Strategy. Each federal organization must report on its progress in implementing its departmental sustainable development strategy each year for at least 2 years after it is tabled.

In keeping with the Act, the draft strategy includes 17 goals, with each goal supported by at least one target. Short-term milestones and implementation strategies support achievement of the goals and targets.

Federal Sustainable Development Strategy targets must be specific and measurable, include a time frame, and identify one or more ministers responsible for their achievement. They must also align with the 7 sustainable development principles set out in the Act. Targets generally take a medium-term view.

Short-term milestones represent interim steps that will help ensure the Government of Canada stays on track to achieve the goals and targets set out in the draft strategy. They highlight results to be achieved within the strategy's 2022 to 2026 cycle.

Finally, implementation strategies set out what the Government of Canada will do to achieve its goals and targets. They describe the actions that federal organizations are committed to taking to make progress. Implementation strategies set out in the Federal Sustainable Development Strategy are complemented by specific commitments in departmental sustainable development strategies.



# Talking With Canadians About Sustainable Development

## PUBLIC CONSULTATION AND THE *FEDERAL SUSTAINABLE DEVELOPMENT ACT*

This draft strategy is only the first step toward establishing the Government of Canada's environmental sustainability plan for the next 4 years. We need your suggestions, thoughts and priorities as we develop the final version.

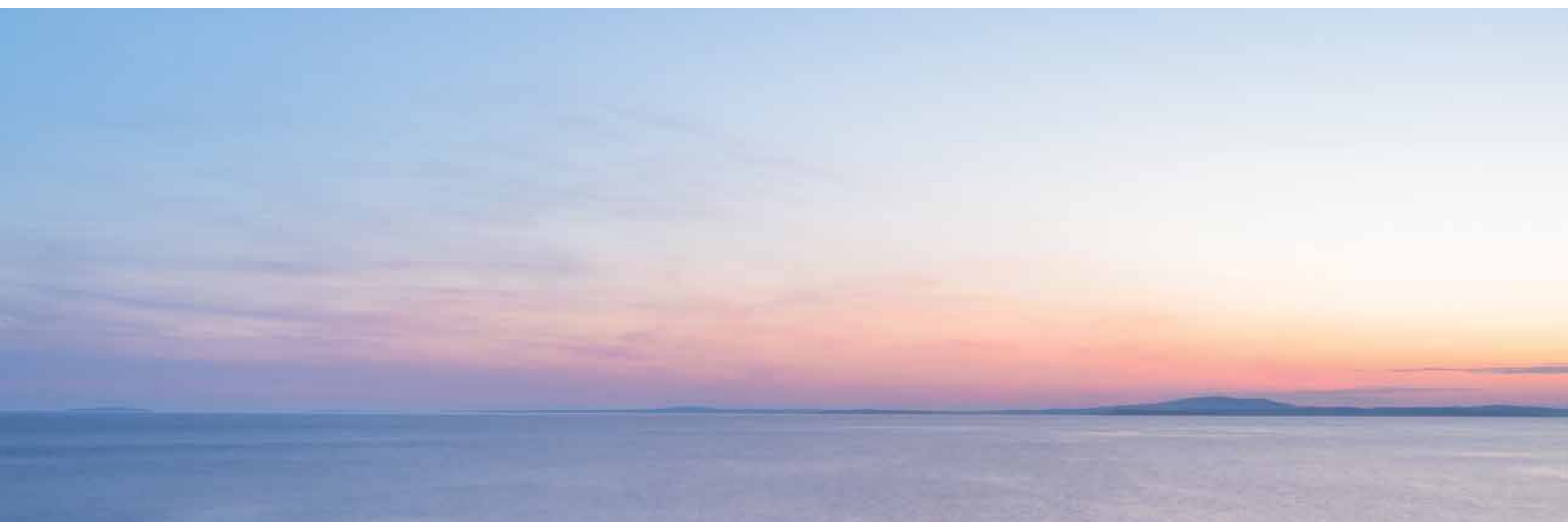
Each new Federal Sustainable Development Strategy is released for a public consultation period of at least 120 days before it is tabled in Parliament. Public consultation is an important part of developing the strategy, helping to ensure that its targets, milestones and actions reflect the priorities of Canadians.

Under the Act, during the public consultation period the draft strategy must be provided for review and comment by:

- the House of Commons Standing Committee on Environment and Sustainable Development
- the Standing Senate Committee on Energy, the Environment and Natural Resources
- the Commissioner of the Environment and Sustainable Development
- the Sustainable Development Advisory Council, which includes members from each province and territory, Indigenous peoples, environmental non-governmental organizations, business, and labour
- the public

Comments on the draft strategy will be accepted until July 9, 2022. The Government of Canada will review all input and take it into account when developing the final version of the strategy. The final strategy will also reflect new and evolving Government of Canada priorities. After the consultation period, we will publish a report summarizing public comments alongside the final strategy.

All 99 participating federal organizations will work collaboratively to incorporate public feedback and develop the final strategy. As required by the strengthened *Federal Sustainable Development Act*, they will also consider public consultation comments as they shape their own departmental sustainable development strategies.





## HOW TO PARTICIPATE

Your comments will help strengthen the strategy and contribute to a more sustainable Canada. We encourage you to share your thoughts on the draft strategy as well as your sustainable development priorities.

- Given the climate crisis facing Canada and the world today, does the structure of the draft 2022 to 2026 strategy—highlighting the environmental aspects of the 17 SDGs, including its more social and economic goals—resonate with you? How would you change it?
- Do the goals, targets and actions highlighted in the draft strategy cover the key sustainable development issues that the federal government should be focusing on?
- Which sustainable development issue(s) do you think are missing or need more emphasis?
- Sustainable development encompasses environmental, social, and economic issues. Are these linkages captured well (for example in the chapters on SDG 1, No Poverty, SDG 4, Quality Education, and SDG 10, Reduced Inequalities)?
- What do you think is the Government of Canada's primary role in driving sustainable development forward?
- Do we have the right targets and indicators to advance and measure performance?
- What is the future of sustainable development? How do you see this concept changing?

Share your views by:

- submitting comments through the [online version of the draft strategy](#) using the comment boxes
- providing your feedback and answering questions through the [interactive consultation website](#)
- replying to Facebook, Twitter and LinkedIn posts or tweeting with the hashtag #FSDS
- sending your written comments or videos by email to [SDO-BDD@ec.gc.ca](mailto:SDO-BDD@ec.gc.ca)
- writing to us at the Sustainable Development Office, 200 Sacré-Coeur Boulevard 7<sup>th</sup> floor, Gatineau, Québec, K1A 0H3
- sharing your expertise in webinars

## SUBMIT A PHOTO

We also invite you to participate in a photo contest. Environment and Climate Change Canada invites Canadians from across the country to send us your best original snaps. We're looking for photos that capture the environmental aspects of sustainable development (for example, a community garden, an electric vehicle, the natural environment) to feature in the final 2022 to 2026 Federal Sustainable Development Strategy. Top prize is the cover page and a short write-up in the strategy. Other photos selected will be featured throughout the different chapters.

The contest opens March 15, 2022, at 9:00 a.m. Eastern time. Entry deadline is May 15, 2022, at 9:00 a.m. Eastern time. For full contest details and to submit a photo, visit [placespeak.com/FSDS](https://placespeak.com/FSDS).

## CONTINUING THE CONVERSATION

In the 2019 to 2022 Federal Sustainable Development Strategy, the Government of Canada committed to continue talking with Canadians about ideas and actions to advance sustainability. While adapting to the unique pandemic situation, we continued to seek feedback from Canadians over the past 3 years by email, through webinars, and through social media. This feedback has helped shape our understanding of Canadians' sustainability priorities and has influenced this draft strategy.

The conversation with Canadians will continue after the 2022 to 2026 strategy is tabled in Parliament. Ongoing input will continue to inform the Government of Canada's sustainable development approach and future strategies.

We also encourage you to participate in other Government of Canada consultations. While consultations on the draft Federal Sustainable Development Strategy will help shape the government's overall sustainable development approach for the next 4 years, you can also participate in consultations on specific policies and programs that contribute to the strategy's goals. Find other Government of Canada consultations at [Consulting with Canadians](#).

## Respecting Canada's Sustainable Development Commitments

In September 2015, United Nations Member States, including Canada, adopted the 2030 Agenda for Sustainable Development. The 2030 Agenda's 17 Sustainable Development Goals (SDGs) apply to all countries and balance the 3 dimensions of sustainable development: social, economic, and environmental. The pledge to leave no one behind, and to reach the furthest behind first, is central to the 2030 Agenda and the SDGs.



For the first time, the draft 2022 to 2026 Federal Sustainable Development Strategy is organized around the 17 SDGs, with a focus on their environmental aspects. This new frame will enable the strategy to foster coordinated action across government, focus on sustainable development decision making and respect Canada's domestic and international obligations related to sustainable development. It also addresses recommendations from the House of Commons Standing Committee on Environment and Sustainable Development resulting from their 2016 review of the *Federal Sustainable Development Act*, reviews by the Commissioner of the Environment and Sustainable Development, and comments from Canadians, who recognize the importance and value of the SDGs.

The draft 2022 to 2026 strategy supports [Moving Forward Together: Canada's 2030 Agenda National Strategy](#) by focusing primarily on federal action to advance the environmental aspects of the SDGs. Structuring the strategy around the 17 SDGs will ensure there is a common frame for sustainable development in Canada, both at the federal and whole-of-society levels.

Wherever possible, targets and indicators in the draft 2022 to 2026 strategy align with the [Canadian Indicator Framework for the 2030 Agenda](#) to promote policy coherence and transparency. To help guide the environmental aspects of the social and economic-focused SDGs, the [Global Indicator Framework](#) was also consulted. Annex 2 of the draft strategy, which sets out the indicators that will be used to measure progress toward the goals and targets, identifies indicators which also appear in the Canadian Indicator Framework.

By focusing on the environmental aspects of the SDGs, the draft strategy highlights the environment as a critical component of sustainable development in the context of the climate crisis, biodiversity loss, and other urgent environmental challenges facing Canada and the world. It also shows how environmental issues interact with economic and social issues such as poverty, education and gender equality. In keeping with the broadened focus of the strengthened *Federal Sustainable Development Act*, the draft strategy addresses themes that cut across the environmental aspects of social and economic SDGs, such as supporting sustainable food production, enhancing food security in Indigenous and northern communities, promoting gender equality in the clean technology sector, and financing low-carbon, climate-resilient development in low and middle-income countries.

While actions in the draft 2022 to 2026 Federal Sustainable Development Strategy show what the federal government is doing to support environmental aspects of the SDGs, relevant departments and agencies are also taking action to implement Canada's 2030 Agenda National Strategy.



## MOVING FORWARD TOGETHER: CANADA'S 2030 AGENDA NATIONAL STRATEGY

[Canada's 2030 Agenda National Strategy](#) sets out an approach to accelerate progress toward meeting the SDGs in Canada and contributing to their achievement internationally. Led by Employment and Social Development Canada, the strategy promotes a whole-of-society effort to achieving the SDGs. It also sets out a national vision to help build the world envisioned in the 2030 Agenda for Sustainable Development.

Canada's 2030 Agenda National Strategy is about building an environment that enables everyone and every sector of Canadian society to see how they can be part of achieving the SDGs, and then act in ways that are right for them. It aims to reflect the diversity of experiences, knowledge, strengths and resources of Canada. It seeks to meaningfully engage people and groups, with special attention to those facing systemic barriers—and then drive progress through collaborations for greater impacts.

The Government of Canada will report annually to Canadians on progress toward implementing the 2030 Agenda and advancing the SDGs. To track progress on the SDGs and the targets of the 2030 Agenda, the United Nations Member States have agreed to the [Global Indicator Framework](#), a set of global indicators. Canada's domestic indicator framework, the [Canadian Indicator Framework](#), will help measure progress on Canadian SDG ambitions and targets. The Canadian Indicator Framework may be complemented by other government, local, community-driven and Indigenous-owned approaches to measurement. These approaches can enable a more holistic reporting of sustainable development.

The [Federal Implementation Plan](#), supporting the National Strategy, articulates how the Government of Canada will contribute to advancing the 2030 Agenda National Strategy at the federal level. The plan supports coordinated implementation across the federal government to advance progress on the SDGs and provides details on:

- the roles and responsibilities of federal departments and agencies
- an Annual Report to Canadians on progress
- ongoing opportunities for public engagement
- the creation of an External Advisory Committee
- the SDG Funding Program

Lead departments and agencies are named for each of the 17 SDGs. Other federal organizations are identified as key contributors, and will also contribute to the advancement of the SDGs through their policies, programs and initiatives. In addition, horizontal leads are responsible for integrating crosscutting objectives of Leaving no one behind, advancing Reconciliation, and Canada's international efforts to advance the SDGs, into the Government of Canada's work on advancing the 2030 Agenda.

## THE GREENING GOVERNMENT STRATEGY

The Greening Government Strategy is a set of government-approved commitments that apply to all core government departments and agencies. It shows how the Government of Canada will transition its own operations to reach net-zero carbon and become more climate-resilient, while also reducing environmental impacts beyond carbon, including on waste, water and biodiversity. The strategy is led by the Centre for Greening Government of the Treasury Board of Canada Secretariat.

The Greening Government Strategy targets net-zero emissions from operations by 2050, including:

- government-owned and leased real property
- mobility: fleets, business travel and commuting
- procurement of goods and services
- national safety and security operations

The draft 2022 to 2026 Federal Sustainable Development Strategy includes the Government of Canada's commitment to lead by example by greening its operations, achieving net-zero emissions and becoming climate resilient. Key actions to support the government's 2030 and net-zero emissions target can be found under SDG 13, Climate action. For more information on the Government of Canada's targets, actions, inclusions and exclusions for greening operations, please see the [Greening Government Strategy](#).



# Sustainable Development Vision And Principles

## THE FSDS VISION

The draft 2022 to 2026 Federal Sustainable Development Strategy supports the government's vision that Canada's economic, social, and environmental health is secure and our quality of life continues to improve.

Achieving this vision requires addressing environmental challenges while recognizing the importance of investing in activities that strengthen our environment and economy for future generations.

## PRINCIPLES FOR THE 2022 TO 2026 FSDS

The *Federal Sustainable Development Act* sets out 7 principles that must be considered in the development of the Federal Sustainable Development Strategy as well as departmental sustainable development strategies. Each of these principles is reflected in the draft 2022 to 2026 strategy.

### **1. Sustainable development is based on an efficient use of natural, social and economic resources and the need for the Government of Canada to integrate environmental, economic and social factors in the making of all of its decisions**

The draft 2022 to 2026 strategy provides evidence that the environment is at the forefront of government decision making, while taking into account issues that are more socially or economically focused. The strategy continues to be systemically considered in decision making through the conduct of strategic environmental assessments as required by the Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals. The strategy includes targets and actions on important environmental issues facing Canadians, including climate change, air quality and biodiversity loss. By looking at each of the 17 SDGs through an environmental lens, the draft strategy considers certain key links between the environment and broader sustainable development issues such as poverty, hunger, human health, economic growth, infrastructure, consumption and production, and education.

The Government of Canada is strengthening its capacity to consider climate mitigation and adaptation in a rigorous, consistent, and measurable manner. Budget 2021 announced \$36.2 million over 5 years, starting in 2021 to 2022, to develop and apply an Integrated Climate Lens that ensures climate, economic and inclusivity considerations are integrated throughout federal government decision making. This includes resources to increase economic and emissions modelling capacity.

Impact assessment contributes to informed decision making on designated projects in support of sustainable development. The Impact Assessment Agency of Canada leads all federal reviews of major resources projects. The purposes of impact assessment include fostering sustainability, ensuring respect for the rights of Indigenous peoples, protecting components of the environment, and social, health, and economic factors, and establishing a fair, predictable, and efficient impact assessment process that enhances Canada's competitiveness and promotes innovation. Impact assessments also provide opportunities for meaningful public engagement. Additionally, strategic and regional assessments help the government understand impacts from a broader perspective compared to project-level impact assessments.

Finally, the Government of Canada is committed to intersectional policy development that considers how diverse groups of women, men, and gender-diverse people may experience policies, programs, and initiatives, while seeking to advance equitable outcomes and addressing systemic inequalities. For example, federal departments and agencies are currently required to integrate Gender Based Analysis Plus (GBA Plus) into all Memoranda to Cabinet, Treasury Board submissions, legislation, regulations, and budget proposals. The 2018 *Canadian Gender Budgeting Act* further enshrined gender budgeting in federal budgetary and financial processes.



## **2. Sustainable development as a continually evolving concept**

The 3-year Federal Sustainable Development Strategy cycle enables the strategy to reflect new and emerging issues in sustainable development and supports continuous improvement. The draft 2022 to 2026 strategy reflects lessons learned through 4 previous cycles, including through the introduction of a new frame based on the 17 SDGs, with a focus on their environmental aspects, stronger targets that are measurable and include a time frame, as well as new targets in areas such as disaster risk reduction (complementing commitments to achieve net-zero greenhouse gas emissions and release Canada's first national strategy on climate change adaptation), information about sustainable development, and employment of women in the clean technology sector.

The draft strategy reflects new and emerging sustainable development issues such as environmental equity and environmental justice — the equitable treatment and meaningful inclusion of all people in laws, regulations, and programs to protect them from environmental hazards, regardless of their income or identity, and which facilitates their access to environmental benefits and opportunities in the clean economy (see chapter 10).

The draft provides strengthened transparency and accountability: for the first time, it includes a table (Annex 3) clearly indicating which federal organizations are responsible for individual targets, milestones and implementation strategy actions.

Actions set out in the draft strategy reflect the diverse ways in which sustainable development can be advanced. For example, The Government of Canada's actions to protect the environment and health are guided by a precautionary approach, which states that "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." The Government of Canada's approach to sustainable fisheries (under SDG 14, Life Below Water) also reflects the precautionary principle, while work to ensure carbon pollution pricing systems are in place in Canada (under SDG 13, Climate Action) reflects the "polluter pays" principle.

## **3. Intergenerational equity**

The goals, targets and implementation strategies of the 2022 to 2026 draft strategy reflect a commitment to intergenerational equity, or the principle that it is important to meet the needs of the current generation without compromising the ability of future generations to meet their own needs.

Considering intergenerational equity also means accepting the reality that environmental challenges, as well as action to address them, do not affect all Canadians in the same way. For example, a decision that benefits seniors may, for example, have little direct impact on children, and vice-versa. In addition to age or generation, people experience climate change and other environmental challenges differently based on many characteristics inherent to who they are. These include (and are not limited to) gender, race, religion, sexuality, ability, class and citizenship status. Youth in Canada should be at the center of work to ensure a stable climate, clean air and water, and healthy ecosystems.

The focus of the draft strategy is on addressing environmental challenges facing Canada so that future generations are able to thrive. This includes driving down emissions; taking the actions needed to minimize current and future harm from climate change, including minimizing economic and social risks for future generations; ensuring that Canadians have clean air to breathe and clean water to drink; and conserving Canada's unique ecosystems and the services they provide, including those key to food security such as pollination and access to traditional foods. At the same time, it emphasizes the importance of ensuring a healthy economy and a healthy environment for Canadians today—for example, by supporting businesses and workers so that they can succeed in the clean growth economy.

Recent amendments to the Act further promote intergenerational equity. The Minister of Environment and Climate Change takes into account demographic considerations such as age, gender and diversity when appointing members of the Sustainable Development Advisory Council. This helps ensure that the council reflects the diversity of Canadian society and that the voices of Canadians of all ages can shape this and future strategies.

#### **4. Openness and transparency**

The draft 2022 to 2026 strategy supports openness and transparency by bringing federal environmental sustainability targets across all 17 SDGs together in one place. It presents a whole-of-government picture of how 99 federal organizations contribute to advancing the environmental perspectives of the SDGs. Once the final strategy is tabled, departmental sustainable development strategies will set out how individual federal organizations are taking concrete action within their own mandates.

The Act requires regular departmental reporting as well as a whole-of-government Federal Sustainable Development Strategy progress report in each 3-year period. The Canadian Environmental Sustainability Indicators (CESI) program builds on this requirement to support transparency. CESI indicators that support the strategy's reporting are updated on an ongoing basis, enabling Canadians to track progress on goals and targets.

Wherever possible, indicators for measuring progress on the draft 2022 to 2026 Federal Sustainable Development Strategy—including a number of CESI indicators—align with the Canadian Indicator Framework for the 2030 Agenda. This helps to support a consistent and coherent sustainable development reporting approach across the Government of Canada.

#### **5. Involving Indigenous peoples**

Canada adopted the *United Nations Declaration on the Rights of Indigenous Peoples Act* in June 2021 to advance the implementation of the Declaration as a key step in renewing the Government of Canada's relationship with Indigenous peoples. The UN Declaration Act will provide a legislative framework to advance the Government of Canada's implementation of the Declaration at the federal level, in partnership with Indigenous peoples.

The Government of Canada recognizes the importance of involving Indigenous peoples in developing the Federal Sustainable Development Strategy given their Traditional Knowledge and their unique understanding of, and connection to, Canada's lands and waters. Indigenous youth will inherit the results of Canada's sustainable development efforts, and play an important role in social and economic outcomes where no new generation of Indigenous youth is "left behind". Indigenous peoples are encouraged to comment on the draft and help to shape the final strategy that is tabled in Parliament.

The Sustainable Development Advisory Council plays a key role in shaping the strategy and advising the Minister of Environment and Climate Change on sustainable development. Since 2020, 6 seats on the Council (up from 3) are reserved for members representing Indigenous peoples.

The draft strategy reflects a broad range of Government of Canada initiatives, many of which involve collaboration with Indigenous peoples. For example, Indigenous peoples work closely with the federal government to conserve and protect lands and waters and help species at risk recover. Indigenous peoples are also taking action in their own lands and communities to protect the environment and promote climate resilience.

## 6. Collaboration

The draft 2022 to 2026 strategy promotes collaboration by presenting common goals and targets that apply to departments and agencies across government. Compared with past strategies, the current draft enhances collaboration by including contributions from many more federal organizations—99 compared to 44 in the 2019 to 2022 strategy (28 that were required to participate and 16 that participated voluntarily).

While the draft strategy focuses on federal targets and actions, partners such as provincial and territorial governments, Indigenous peoples, municipalities, businesses, and non-governmental organizations collaborate with the federal government on many initiatives that support its goals and targets. For example, the Government of Canada is working with other governments, the private sector and Indigenous peoples to advance the development and deployment of clean and renewable energy.

## 7. Results and delivery approach

As required by the strengthened *Federal Sustainable Development Act*, all targets in the draft 2022 to 2026 strategy are measurable and include a time frame. For each target, the strategy identifies an indicator that will be used to measure progress. Baseline data provided for each indicator make the starting point clear and provide a basis for future reporting.

Within one year after the final Federal Sustainable Development Strategy is tabled in Parliament, each federal organization that contributes to it will be required to prepare its own departmental sustainable development strategy that supports the goals of the broader federal strategy. Each federal organizations must also report on progress in implementing its departmental sustainable development strategy and report on its implementation each year for at least 2 years after it is tabled. This way, federal organizations will have the opportunity to make course corrections as required throughout the Federal Sustainable Development Strategy cycle. Through this reporting, parliamentarians and Canadians will also be able closely track what is being achieved by individual federal organizations over the next 4 years.

A whole-of-government Federal Sustainable Development Strategy progress report will complement individual departmental reports. While federal organizations will report on the implementation of their specific commitments through departmental reporting, the whole-of-government progress report will assess how the government is progressing overall on the strategy's targets and short-term milestones. It will include a rating system to assess progress using the most recent target-level indicator results. By examining the results achieved during the strategy's cycle, the rating system will provide an assessment of "achieved", "underway", "attention required", or "no new data available" for each target. Federal organizations will collect data and track progress on the targets and milestones for which they are responsible and will contribute to the development of the whole-of-government progress report.

Updates to the online version of the strategy between 2022 and 2026 will support a results and delivery approach. Throughout the cycle, information will be added to the online version of the strategy on results achieved and on the contributions of individual federal organizations.





## CHAPTER 1

# SUPPORT CANADIANS' PREPAREDNESS FOR NATURAL DISASTERS AND EMERGENCIES

Federal Environmental Perspective on SDG 1

## The Environmental Perspective

Canada needs to build resilience to current and potential climate change impacts that threaten our communities, our health and our well-being. This chapter's focus on Canadians' preparedness for natural disasters and emergencies directly supports [SDG Global Indicator Framework](#) Target 1.5: by 2030, build the resilience of the poor and those in vulnerable situations and strengthen their capacity to respond to and recover from climate-related extreme events and other economic, social and environmental shocks and disasters.

As the frequency and severity of climate-related disasters rise, impacts of the loss of biodiversity and ecosystem services threaten the foundations of our economy, food security, health, and quality of life. Poverty and climate-related disasters are interlinked: although natural disasters can affect all Canadians, various social factors (including income, education, employment, and living conditions) may accelerate their impacts on individuals and communities, as well as affect their capacity to prepare and adapt. Poverty can [worsen](#) the impacts of a disaster, while disasters can cause or exacerbate poverty. Over the last 20 years, the world has experienced more floods, wildfires, and other climate-related disasters than in any other documented 20-year period in history. This has affected communities, the environment and the resources it provides, as well as overall poverty levels.

Despite substantial progress in reducing poverty over the past several years, in 2019 [about 1 in 10 people](#) continued to live in poverty in Canada. Groups such as single people, persons with disabilities, lone parents, recent immigrants, First Nations, Inuit, and the Métis Nation are more likely to have low incomes and face systemic barriers that affect their ability to prosper.

Extreme events such as heat waves, floods and storms are causing costly damage to Canadian communities, as well as injury, illness, death, and longer-lasting impacts on people's mental health. Across Canada, health facilities have been flooded, procedures have been canceled due to extreme heat or power losses from storms, and facilities have been evacuated due to wildfires. An increased frequency and intensity of multiple climate extremes in a region may lead to compounding or cascading extreme events affecting populations, communities and health systems, and outstripping their ability to respond.

According to the [Insurance Bureau of Canada](#), insured damage for severe weather events across Canada reached \$2.1 billion in 2021, ranked as the year with the sixth-highest loss. Further, during the prolonged heatwave in southwestern British Columbia in 2021, more than 569 people were reported to have died due to the heat, and 79% of the deceased were over 65 years old.

First Nations, Inuit, and the Métis Nation face disproportionate health risks from climate change and remain some of the groups most vulnerable to a changing environment. These populations experience unique challenges due to the remote geographic location of many communities, disproportionate fiscal and population pressures, a legacy of sub-standard infrastructure, limited access to services, and a heavy reliance on the natural environment. For example, Inuit communities are experiencing the effects of thawing permafrost, including damaged homes, schools, roads and other infrastructure. Climate change, biodiversity loss, and environmental degradation are also reducing access to traditional food sources such as seals, caribou and fish. For example, a declining caribou herd population in the Arctic is currently affecting food security for Indigenous groups in northern Quebec and Labrador.





## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 1 are listed below.

- Strengthen the governance and service delivery for First Nations emergency preparedness, management and recovery (Minister of Indigenous Services and Minister responsible for the Federal Economic Development Agency for Northern Ontario; Minister of Crown-Indigenous Relations; Minister of Northern Affairs; President of the Queen's Privy Council for Canada and Minister of Emergency Preparedness).
- Develop a whole-of-government planning and preparedness strategy to ensure the Government of Canada is fully prepared to protect lives and livelihoods from the catastrophic impacts of climate change (President of the Queen's Privy Council for Canada and Minister of Emergency Preparedness).
- Take action to help Canadians be prepared for, and recover from the impact of floods in high risk areas, by:
  - Creating a portal informed by mapping to provide centralized access to information on flood risks as well as resources and suggestions on how best to protect their homes and communities (President of the Queen's Privy Council for Canada and Minister of Emergency Preparedness; with support from the Minister of Natural Resources);
  - Creating a low-cost national flood insurance program to protect homeowners who are at high risk of flooding and do not have adequate insurance protection (President of the Queen's Privy Council for Canada and Minister of Emergency Preparedness);
  - Developing strategies to lower insurance premiums and identify cost-effective ways to protect communities and homes from climate impacts (President of the Queen's Privy Council for Canada and Minister of Emergency Preparedness); and
  - Co-Chairing the joint Committee of British Columbia and Government of Canada ministers on disaster response and climate resilience, ensuring effective coordination across all orders of government, including with Indigenous communities, and that lessons learned from the recent climate-related floods and fires are translated into effective policy action (President of the Queen's Privy Council for Canada and Minister of Emergency Preparedness).
- Protect homes and communities from the impacts of climate change by completing work to develop flood maps for higher-risk areas, advancing work to complete flood mapping nation-wide, supporting the development of a portal to provide centralized access to information on flood risks, and expanding the eligibility requirements of the Canada Greener Home Grants to include more climate resilience measures (Minister of Natural Resources).

## How the Government of Canada Contributes

Vulnerable populations that may experience the impacts of natural disasters more acutely are supported by programs such as [Opportunity for All – Canada's First Poverty Reduction Strategy](#). Opportunity for All established an official measure of poverty—Canada's Official Poverty Line—and set ambitious and concrete poverty reduction targets, including a 50% reduction by 2030, which, relative to 2015 levels, will lead to the lowest poverty rate in Canada's history.

Emergency management and disaster risk reduction are shared responsibilities. Provincial, municipal, and territorial governments and Indigenous peoples lead within their respective jurisdictions. The Government of Canada provides leadership at the national and international levels, including on lands and properties under federal responsibility.

In 2019, federal, provincial, and territorial governments endorsed the [Emergency Management Strategy for Canada: Toward a Resilient 2030](#). This strategy helps fulfill the Government of Canada's commitment under the [Sendai Framework for Disaster Risk Reduction](#) for a pan-Canadian disaster risk reduction strategy. Its purpose is to build resilience in Canada by guiding governments, and their respective partners, in carrying out priorities aimed at strengthening Canada's ability to assess risks and to prevent/mitigate, prepare for, respond to, and recover from disasters. It recognizes that pre-existing socioeconomic disadvantages tend to amplify the negative impacts of climate-related disasters.

The Government of Canada supports programs that strengthen community resilience to extreme weather events. For example, the [Disaster Mitigation and Adaptation Fund](#), launched in 2018, is a national program for communities across Canada that aims to reduce the socioeconomic impacts of climate change. Meanwhile, the First Nation Infrastructure Fund supports structural mitigation projects to make communities more resilient to natural hazard events. The Rural and Northern Communities Infrastructure stream of the Investing in Canada Infrastructure Program is also investing in the unique and wide-ranging infrastructure priorities of small, rural, and remote communities.

In June 2021, Canada joined the [Coalition for Disaster Resilient Infrastructure](#), a partnership of 26 countries and 7 international organizations, the private sector, and knowledge institutions. The coalition aims to promote the resilience of new and existing infrastructure systems to climate and disaster risks.



## EMERGENCY MANAGEMENT IN INDIGENOUS AND NORTHERN COMMUNITIES

Indigenous peoples living in remote northern areas are among those most at risk in Canada to extreme weather events and the slow-onset impacts of climate change. Many communities lack year-round road access (all-season roads) and rely on small airports and seasonal winter roads that operate for a few weeks per year as vital links for the delivery of diesel fuel for heat and electricity, bulk non-perishable food and construction materials, and large equipment. Winter roads, especially segments built over water bodies (ice bridges) are especially susceptible to climate change impacts. Winter road seasons are opening later and closing earlier with more frequent mid-season disruptions due to warm spells. Disruptions to transportation infrastructure due to wildfires, floods, storms, or the increasingly unpredictable availability of winter ice roads, can cause this disproportionately poor segment of Canadian society to experience even greater economic hardship.

The Government of Canada recognizes this reality and seeks to strengthen programs that help equip Canadians with resources, information, and data that improve adaptation, and allow for effective preparation and emergency management services in the most remote of locations in the country. As the knowledge and expertise of Indigenous peoples is vital to emergency management, the Government of Canada is committed to developing multilateral service agreements that make Indigenous peoples full and equal partners in the design and delivery of emergency services.



# EMERGENCY MANAGEMENT AND DISASTER RISK REDUCTION

## Target and indicator

**By March 2023, 55% of Canadians are aware of disaster risks facing their household (Minister of Public Safety; Minister of Emergency Preparedness)**

### ➤ **Percentage of Canadians who are aware of disaster risks facing their household**

Public Safety Canada will track progress on this target. A baseline survey conducted in 2020 to 2021 indicated that 52% of Canadians were aware of weather-related emergency and disaster risks facing their household—for example, floods and wildfires.

## Implementation strategy

### ◆ **Conduct research and analysis on emergency preparedness**

Apply research-based strategies to improve the prevention, response and management of emergencies and disasters and assist in decision making to support resilience to disasters such as floods, wildfires, and earthquakes.

### ◆ **Enhance public awareness of and preparedness for natural disasters**

Provide information to support public awareness of and preparedness for natural disasters to help Canadians respond to climate change.

### ◆ **Provide space-based data for emergency management**

Facilitate the provision of geospatial data to support domestic and international emergency management efforts.

### ◆ **Support emergency preparedness in Indigenous communities**

Support Indigenous communities by building capacity and carrying out activities such as risk assessments and flood protection studies within the 4 pillars of emergency management: mitigation, preparedness, response and recovery.

### ◆ **Support transboundary climate risk management**

Identify and assess climate risks and vulnerabilities associated to human mobility and trade across Canadian borders.

### ◆ **Work with partners on emergency management and disaster risk reduction**

Enhance partnerships and collaboration among international partners, federal departments and agencies, provinces and territories, national and local institutions and Indigenous organizations for disaster risk reduction, and emergency preparedness and response.

## Short-term milestone

### ■ **Publier National Risk Profile reports**

Issue public reports on the National Risk Profile on a biennial basis. These reports will improve Canadians' understanding and awareness of disaster risk.

## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 1.

### ⦿ **Emergency geomatics services provided to Canadians**

This indicator tracks the percentage of emergency geomatics services provided in a timely manner to assist during floods and other natural hazards. RADARSAT data is uniquely positioned to support relief efforts for water-related events such as floods and tsunamis, given its effectiveness at night and through cloud cover. In 2021 to 2022, Emergency Geomatics Services responded to 100% of support requests from the Government of Canada.

### ⦿ **Proportion of investments in disaster mitigation by Infrastructure Canada that benefits/targets climate-vulnerable populations**

This indicator tracks the percentage of total Infrastructure Canada investments in disaster mitigation that benefits climate-vulnerable populations (coastal, northern and Indigenous). Of the funding provided under the first intake of the Disaster Mitigation and Adaptation Fund, 20% went to coastal areas, 4% to Indigenous communities, and 4% to northern communities.

### ⦿ **Structural and natural assets**

This indicator tracks the number of structural assets (such as dams and dikes) and natural assets (naturally-occurring resources or engineered use of natural resources), funded through the Disaster Mitigation and Adaptation Fund, with improved structural capacity to adapt to climate change, disasters and weather. Under the first intake of the Disaster Mitigation and Adaptation Fund, 71% of structural assets, 9% of natural assets, and 20% of hybrid (natural and structural) assets will have had improved capacity to adapt.



## CHAPTER 2

# SUPPORT A HEALTHIER AND MORE SUSTAINABLE FOOD SYSTEM

Federal Environmental Perspective on SDG 2

## The Environmental Perspective

Canada's food system helps to provide safe and healthy food for Canadians and ensure long-term food security. This chapter's focus on a healthier and more sustainable Canadian food system directly supports [SDG Global Indicator Framework](#) Target 2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.



Canada's food system is grounded in nature and depends on a healthy environment, including clean water, healthy soils, and stable pollinator populations. Both agriculture and aquaculture are important contributors to Canada's economy. In 2020, the agriculture and agri-food systems, including food retail and food services, contributed \$139 billion to Canada's gross domestic product, while in 2019, Canada produced 187,026 tonnes of [aquaculture products](#), valued at more than \$1.2 billion.

Sustainable agricultural practices, innovative food policies, food security and resilient food systems have never been more critical. Canadian farmers and ranchers are stewards of the land and continue to help identify solutions to climate change and species at risk recovery. Canada's agricultural practices and food policies support efforts to achieve food security, improve nutrition, reduce food loss and waste, and promote sustainability. Farmers and ranchers must be resilient to climate change, extreme weather events, invasive alien species, and other risks to continue producing a consistent supply of food for Canadians while maintaining a decent income and standard of living.

Aquaculture is the world's fastest-growing food production sector. It represents almost 20% of total seafood production in Canada, and about a third of the total economic value of fisheries. In the coming decade, a shortfall in wild-caught fish and seafood is projected that can be met by increased sustainable aquaculture production.

Wild capture fisheries are a lifeline in Canada's coastal communities, providing food security and well-being, as well as cultural continuity and economic development. This is especially the case for Indigenous communities that are more dependent on fish for food than non-Indigenous communities. In 2019, 9.14 kilograms per person of sea fish, shellfish and freshwater fish products were available in Canada for consumption.

Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Food insecurity is the inability to have access to enough quality or quantity of food in socially acceptable ways, or the uncertainty that individuals will be able to do so. As of 2018, nearly 1.2 million Canadian households experienced food insecurity due to financial barriers.

For Indigenous peoples, access to safe and nutritious food includes both store-bought and traditional or country food. Indigenous peoples have much higher rates of food insecurity compared to the general Canadian population. The high rates of food insecurity among northern and Indigenous populations can be explained by factors such as the relative remoteness and isolation of their communities, financial hardship and socioeconomic inequities, climate change and environmental dispossession and contamination. For example, the effects of climate change significantly impact the availability and sustainability of traditional food sources. The Government of Canada is advancing efforts towards reconciliation with Indigenous peoples by strengthening traditional food systems, recognizing the importance of food to Indigenous culture and well-being, and, in so doing, supporting Indigenous food self-determination and food sovereignty.

Maintaining the resilience of Canada's food systems includes managing the spread and introduction of invasive plant and animal species that could pose a risk to Canada's livestock, crops, and overall agricultural production. Promoting compliance and carrying out enforcement activities at Canada's borders limits the introduction and spread of invasive species.

For Canada's food system to be resilient and contribute to food security, it must be environmentally sustainable. Canada's agriculture sector is adopting innovative technologies and practices to improve environmental performance—for example, by reducing greenhouse gas emissions, storing carbon in soils, protecting water resources, and supporting wildlife habitat. The agriculture sector can continue to improve its environmental sustainability by efficiently using fertilizers, adopting clean technologies, implementing practices to conserve and recover species and ecosystems, and improving soil health. Biomass produced on agricultural land can also be used to generate bio-energy and replace fossil fuels.

## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 2 are listed below.

- Update business risk management programs, including by integrating climate risk management, environmental practices and climate readiness. Ensure that producers, including Indigenous, young and women farmers, have the opportunity to contribute (Minister of Agriculture and Agri-Food).
- As part of a green agricultural plan for Canada, increase support to farmers to develop and adopt agricultural management practices to reduce emissions, store carbon in healthy soil and enhance resiliency; triple funding for clean tech on farms, including for renewable energy, precision agriculture and energy efficiency; and work with farmers and stakeholders to reduce methane and fertilizer emissions in the agricultural sector (Minister of Agriculture and Agri-Food).
- Continue to work on a responsible plan to transition from open net-pen salmon farming in coastal British Columbia waters by 2025 and work to introduce Canada's first-ever Aquaculture Act (Minister of Fisheries, Oceans and the Canadian Coast Guard).
- Continue to improve food security in Inuit Nunangat, including through the Harvesters Support Grant and the Nutrition North Canada program, amended to make it more transparent and responsive to Inuit needs (Minister of Northern Affairs, Minister responsible for Prairies Economic Development Canada and Minister responsible for the Canadian Northern Economic Development Agency; Minister of Crown-Indigenous Relations).

## How the Government of Canada Contributes

The Government of Canada contributes to sustainable food systems by supporting sustainable agriculture and aquaculture production systems, including through science-based decision making and enhanced policies, programs, and regulations. Canada is committed to eliminating hunger through actions and policies that support sustainable agricultural and aquaculture sectors and strengthen the security of its food systems.

Food systems in Canada are a shared responsibility between federal, provincial, territorial and Indigenous governments. Federal authority is used to enact and enforce laws, regulations, and policies for land use and soil management, fisheries and fish habitat, water and air quality, biodiversity and ecosystem health. Legislation related to Canada's food systems includes, for example, the [Fisheries Act](#) and [Safe Food for Canadians Regulations](#). The government uses a number of tools to support aquaculture management, including regulations, policies, scientific research, monitoring, enforcement, engagement and collaboration.

Canada is also investing in ways to increase production, access, and consumption of safe and nutritious food, while continuing to develop programming that promotes food security in Indigenous and remote communities through financial assistance for local and community initiatives. Working toward sustainable food systems and food security requires collaboration. For example, in partnership with provinces, territories, civil society and industry, as well as Indigenous governments and organizations, the Government of Canada developed [A Food Policy for Canada](#) to tackle food issues that matter to Canadians. The Food Policy serves as a roadmap to a healthier and more sustainable food system for Canada with a vision that all are able to access safe, nutritious and culturally diverse food.

Similarly, the [Canadian Agricultural Partnership](#) is a federal-provincial-territorial shared agricultural policy framework that shows how cooperation among governments guides environmental programming. The Canadian Agricultural Partnership will expire in 2023, so work on the next agricultural policy framework has begun.

Meanwhile, through the [Natural Climate Solutions Fund](#), the Government of Canada is investing in the development and adoption of environmentally-friendly farming practices that store carbon and mitigate climate change while helping protect biodiversity, improve water and soil quality, and strengthen farmers' bottom lines.

Investing in science and innovation, the environment and climate change, public trust, and risk management helps the agriculture and aquaculture sectors grow sustainably, manage risks, and create better opportunities for fishers, farmers, businesses and Canadians.

Internationally, Canada plays an active and constructive role in the [United Nations Convention to Combat Desertification](#), the [United Nations Convention on Biological Diversity](#), and the [United Nations Framework Convention on Climate Change](#). Canada takes part in global conservation programmes such as the [Commission on Genetic Resources for Food and Agriculture](#) chaired by the [United Nations Food and Agriculture Organization](#). Canada supports initiatives under the United Nations World Food Program and has co-sponsored a World Trade Organization statement committing to not using export restrictions or prohibitions on non-commercial humanitarian food purchases by the World Food Programme, which will help to ensure that trade rules support progress toward SDG 2.



## FOOD SECURITY IN INDIGENOUS AND NORTHERN COMMUNITIES

The legacies of colonial policies in northern and Indigenous communities in Canada have contributed to a reliance on market foods from the south. High levels of food insecurity are present in Indigenous, northern, and isolated communities, where a lack of access to traditional and market sources of nutritious food is exacerbated by climate change. For example, degrading permafrost and volatile weather patterns disrupt traditional hunting and fishing practices of Indigenous communities and have contributed to an increasing reliance on the transportation of less nutritious and more costly food from southern Canada.



To address this complex issue, the Government of Canada offers programs that aim to improve food security through subsidies, nutrition education initiatives, emergency funding, infrastructure and capacity building, and is committed to working with Indigenous partners to address food insecurity, including through programs developed collaboratively with Indigenous peoples.

A key partnership is the Inuit-Crown Food Security Working Group, a sub-working group of the Inuit-Crown Partnership Committee as part of the Permanent Bilateral Mechanism process. This working group was established in 2019 to provide a whole-of-government approach to the issue of food security and to leverage the contributions of Inuit Tapiriit Kanatami, the 4 regional Land Claim Organizations, Inuit Circumpolar Council Canada, Pauktuutit Inuit Women of Canada, and the National Inuit Youth Council, as well as multiple federal departments and agencies.

## SUSTAINABLE FOOD SYSTEMS

### Targets and indicators

**By 2026, maintain 90% compliance with *Fisheries Act* regulations related to aquaculture (Minister of Fisheries, Oceans and the Canadian Coast Guard)**

#### 📌 Management of Canadian aquaculture

Aquaculture operators' compliance with environmental standards helps to protect Canada's aquatic environment. This indicator reports the rate of compliance of aquaculture operations with *Fisheries Act* regulations, by tracking the total number of inspected aquaculture sites against the number of inspected aquaculture sites where charges were laid for violations of the *Fisheries Act*. It provides a measure of how well aquaculture operators meet environmental protection standards as set out in the *Fisheries Act* regulations.



**By 2030, support improvement in the environmental performance of the agriculture sector by achieving a score of 71 or higher for the Index of Agri-Environmental Sustainability (Minister of Agriculture and Agri-Food)**

➤ **Index of Agri-Environmental Sustainability for water, soil, air and biodiversity**

Agriculture and Agri-Food Canada has developed a set of science-based agri-environmental indicators that integrate information on soils, climate and topography with statistics on land use and crop and livestock management practices. The indices are divided in 5 "health classes". Specifically, 80–100 is defined as "desired"; 60–79 is "good"; 40–59 is "moderate"; 20–39 is "poor"; and 0–19 is "at risk". As of 2011 the water index was 74, the soil index was 77, the air index was 64 and the biodiversity index was 44 for a combined index of 65.

**Implementation strategy**

◆ **Enhance Indigenous and northern food security**

In collaboration with Indigenous partners, improve Indigenous and northern food security by supporting local, community-led and defined projects that reduce dependence on the southern food industry and the associated costs for northern communities. In addition, support research that advances Canada's food policy and is relevant to northern programming.

◆ **Ensure the resilience of Canada's food system**

Ensure the resilience of Canada's food system through regulations, monitoring and programming, including inspections of food, plants and animal products entering Canada to prevent the introduction and spread of invasive species.

◆ **Support natural climate solutions in Canada**

Make progress toward unlocking the power of Canada's natural landscape to reduce emissions in the atmosphere through the Natural Climate Solutions Fund by planting trees, restoring grasslands, wetlands and urban forests, and improving agricultural land management to fight climate change, while achieving co-benefits for the environment and human well-being.

◆ **Support sustainable agriculture**

Support research, development, knowledge transfer, and adoption of sustainable agricultural practices. Conduct research on the environmental effects of agriculture, as well as ways the sector can help combat climate change and become more economically and environmentally sustainable, including by developing nature-based agricultural climate solutions. Promote innovation and encourage the adoption of sustainable agricultural practices, as well as the use of clean fuels and technologies at farm and landscape levels.

◆ **Support sustainable aquaculture**

Support sustainable aquaculture research, management, and knowledge transfer. Conduct research on the environmental impact of aquaculture and facilitate industry contributions to climate change mitigation and environmental sustainability. Use legislation and regulations to ensure sustainable aquaculture practices.

## Short-term milestones

### ■ **Develop a Canadian Agri-Environmental Strategy**

By 2022 to 2023, develop a Canadian Agri-Environmental Strategy, which will set ambitious goals and targets for improving environmental outcomes in the agricultural sector.

### ■ **Improve the affordability of nutritious food**

By 2026, annually improve the affordability of nutritious food in communities eligible for the Nutrition North Canada program by 3 to 5% over the previous year, starting in 2022. The Nutrition North Canada Retail Subsidy Program helps lower the cost of nutritious food and other essential items in 121 isolated communities whose food insecurities are heightened because of climate change and environmental dispossession and contamination. This program makes nutritious food and other essential items more affordable and accessible than it would otherwise be.

### ■ **Increase support through the Northern Isolated Community Initiatives Fund**

By 2023 to 2024, increase support to new food-related projects across the territories to strengthen regional food systems in the North, reduce food insecurity, and seek creative solutions to nutritional challenges, from a second-year baseline of 20 food-related projects with approximately \$1.7 million in funding in fiscal year 2020 to 2021.

### ■ **Promote and support the Canadian Agricultural Partnership Policy Framework**

Conclude the Canadian Agricultural Partnership by 2023 and develop the next Canadian agricultural policy framework.

### ■ **Reduce nitrous oxide emissions in the agriculture sector**

By 2030, work to reduce nitrous oxide emissions from fertilizers in the agriculture sector by 30% from 2020 levels, as part of federal efforts to take effective action on climate change.

### ■ **Support Indigenous self-determination through food cultures and ways of living**

By the end of 2022, work with Indigenous partners to co-develop indicators for the Harvesters Support Grant. The Harvesters Support Grant was launched in 2020 to support hunting and harvesting related activities in eligible communities to strengthen local food systems and support cultural restoration and revitalization. It is rooted in Indigenous peoples' self-determination, local and traditional decision-making structures, and the preservation of Traditional Knowledge around Indigenous food cultures and ways of living.

## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 2.

### 🕒 **Greenhouse gas emissions by economic sector – agriculture**

This indicator tracks emissions for 7 greenhouse gases (carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, perfluorocarbons, hydrofluorocarbons and nitrogen trifluoride) in the agriculture sector. In 2019, there was a value of 72.7 megatonnes of carbon dioxide equivalent reported for the agriculture sector.

### 🕒 **Land-use change**

This indicator measures the amount of land-use change from 2010 to 2015. It reports the proportion of agricultural land that has been converted to settlement and the amount of forest that has been converted to cropland or settlement in Canada south of 60 degrees north. Looking at land-use changes between cropland, forest and settlement south of 60 degrees north (the southern territorial border of Yukon, Northwest Territories and Nunavut) from 2010 to 2015:

- 3,473 square kilometres of land-use change was observed, representing well under 1% of the overall area
- Of the land-use change observed, a large proportion (65% or 2,258 square kilometres) was the conversion of forest to cropland
- About 1,215 square kilometres of cropland and forest were converted to settlement

### 🕒 **Wildlife habitat capacity on agricultural land**

This indicator calculates the relative value of farmland and provides an assessment of the status and the general changes in the potential of the Canadian agricultural landscape to provide suitable habitat for terrestrial birds, mammals, reptiles, and amphibians.

- In 2017, in western Canada, wildlife habitat capacity is generally higher in British Columbia than in the prairies with the exception of the Fraser Valley.
- In 2017, in eastern Canada, southwestern Ontario and the greater Montreal area have the lowest wildlife habitat capacity.
- On average, wildlife habitat capacity on agricultural land has seen little change since 2011.
- Where it has changed, it has increased in a slightly larger area (3.4% of agricultural land) than it declined (3.1% of the area).



### 3 GOOD HEALTH AND WELL-BEING



#### CHAPTER 3

## PROTECT CANADIANS FROM AIR POLLUTION AND HARMFUL SUBSTANCES

Federal Environmental Perspective on SDG 3

### The Environmental Perspective

Air pollution and the release of chemicals into the environment pose risks to human and animal health and the environment. This chapter's focus on addressing air quality and protecting Canadians from harmful substances directly supports several [SDG Global Indicator Framework](#) targets, including 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management; and 3.9: By 2030 substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination.



In 2021, it was estimated that air pollution contributes to 42 out of 100,000 premature deaths in Canada every year. [Air pollution](#) also worsens health issues, such as asthma, for millions of Canadians. The total economic cost of all health impacts attributed to air pollution is an estimated \$120 billion per year from issues such as medical cost and reduced workplace productivity.

About one third of Canadians live in areas where air quality does not meet one or more national standards. Children and those with pre-existing cardiovascular and respiratory diseases are more vulnerable to detrimental effects from air pollution.

Air pollution also reduces the growth and productivity of crops and contributes to the decline of certain forests. These environmental impacts in turn threaten food security, land use, and cultural activities, which can further impact the mental and physical health of people living in communities across Canada.

Canadians depend on chemical substances for everyday life. Some chemical substances are made deliberately, while others are by-products of chemical processes and still others occur naturally in the environment. Unfortunately, some [chemical substances](#) can negatively affect Canadians' health and environment. Exposure to toxic substances may lead to serious health issues including cancer. Harmful substances can also affect wildlife, traditional and country foods, and the quality of Canada's air, soil and water.

Climate-driven infectious diseases also affect the health and well-being of Canadians. As the climate changes, certain pathogens and vectors for infectious diseases can establish in new areas, expand and shift in geographic range, or become more abundant.

As temperatures in Canada rise, Canadians will experience growing risks associated with tick-borne diseases such as Lyme disease (which is already moving northward into Canadian communities), mosquito-borne diseases such as West Nile Virus, other zoonotic infectious diseases, and foodborne and waterborne illnesses. When Canada loses natural habitats, or they become degraded and altered, there will continue to be an increased risk of infectious disease emergence and re-emergence.

## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 3 are listed below.

- Enact a strengthened *Canadian Environmental Protection Act* to protect everyone, including people most vulnerable to harm from toxic substances and those living in communities where exposure is high (Minister of Environment and Climate Change).
- To ensure Canadians are protected from risks associated with the use of pesticides and to better protect human health, wildlife and the environment, modernize and strengthen the *Pest Control Products Act* to ensure it supports transparency, use of independent scientific evidence and input to the decision-making process (Minister of Health).
- Identify, and prioritize the clean-up of, contaminated sites in areas where Indigenous peoples, racialized and low-income Canadians live (Minister of Environment and Climate Change).

## How the Government of Canada Contributes

The Government of Canada is committed to improving air quality, protecting Canadians and the environment from harmful substances, and increasing communities' resilience to infectious disease challenges. The [Canadian Environmental Protection Act, 1999](#) provides the basis for a range of federal environmental and health protection programs, including activities to address air pollution and assess and manage chemicals.

The Government of Canada's Air Quality Program focuses on domestic and international work to improve air quality and reduce the effects of outdoor and indoor air pollution on human health and the environment. It helps to inform Canadians about the health risks of outdoor and indoor air pollution and encourages personal actions to reduce these risks.

Working with provinces and territories, the Government of Canada also helps to improve air quality through the Air Quality Management System. A key element of this approach is the [Canadian Ambient Air Quality Standards](#), which are in place for 4 air pollutants—sulphur dioxide, nitrogen dioxide, fine particulate matter, and ground-level ozone—to protect human health and the environment and to drive continuous improvement in air quality across Canada.

The Government of Canada also works to address air pollutant emissions from industrial sectors and equipment, the transportation sector, and consumer and commercial products that are used every day.

The Government of Canada works with other countries to address air pollution originating from outside its borders through international agreements such as the Canada-United States Air Quality Agreement, the [Convention on Long-Range Transboundary Air Pollution, and the Gothenburg Protocol](#). Canada is also party to other international treaties that address chemicals and greenhouse gases such as the [Montreal Protocol on Substances that Deplete the Ozone Layer](#), and the [Kigali Amendment to the Montreal Protocol](#) to reduce the consumption and production of hydrofluorocarbons.

### DIFFERENCES IN EXPOSURE TO AIR POLLUTANTS

Canadians are exposed to varying levels of [air pollution](#) that depend on factors such as the proximity to emissions sources and the long-range transport of pollutants by wind. The highest concentrations of most [air pollutants](#) are found around Canada's Census Metropolitan Areas, with the Windsor to Québec City corridor generally having the highest levels of air pollution. This is primarily due to the [large concentration of population](#) and associated emissions sources, such as cars, trucks and industry, as well as the transport of air pollutants over long distances by wind from the United States. Exposure to air pollutants is particularly felt amongst visible minority and immigrant populations living in Canada's largest cities. Additionally, those living in areas impacted by wildfire smoke can experience higher levels of air pollution.

The [Federal Contaminated Sites Action Plan](#) was established in 2005 to reduce environmental and human health risks from known federal contaminated sites and associated federal financial liabilities, while focusing on the highest priority sites. Since the beginning of this program, assessment activities have been conducted at 10,930 sites, while remediation has been completed at 1,100 sites.

Meanwhile, the [Chemicals Management Plan](#) aims to reduce risks posed by chemicals, polymers, and organisms. These substances are assessed for potential effects on human health and the environment. Risk management actions are developed and implemented to mitigate these impacts if substances are found to be harmful to human health and/or the environment.

Finally, the Infectious Disease and Climate Change Program and Fund delivers actions such as increasing the capacity of public health professionals to respond to the rising demands posed by climate-driven infectious diseases, and enabling access to information and tools to better understand risks and measures to prevent infection. It helps improve adaptability and resiliency to the health impacts of climate-driven infectious diseases through surveillance and monitoring activities and access to education and awareness tools. It also helps to advance work under the [Federal Framework on Lyme Disease and Action Plan](#) by supporting projects that enhance surveillance and monitoring efforts and develop new education and awareness resources and tools for the public and health professionals.



## INDIGENOUS COMMUNITIES AND NORTHERN CONTAMINATED SITES

Lands across the North have been subject to resource extraction, infrastructure development, and other industrial operations for decades. This has resulted in contaminated sites and other brownfield lands that pose a risk to the environment and human health. These sites have a disproportionate effect on Indigenous peoples and communities through their impact on cultural lands and water and soil quality, affecting access to clean drinking water and traditional and country foods.

Crown-Indigenous Relations and Northern Affairs Canada's Northern Contaminated Sites Program is responsible for managing 162 contaminated sites in the North, to reduce risks to human health and the environment, decrease federal liabilities, and maximize socioeconomic benefits for Indigenous peoples and Northerners. Remediation projects are managed in partnership with Indigenous and territorial governments, and the private sector. The 8 largest abandoned mine projects in Yukon and the Northwest Territories are funded through the department's Northern Abandoned Mine Reclamation Program, while the remaining sites are funded through the Federal Contaminated Sites Action Plan.

Other federal organizations contribute to addressing contaminated sites, such as Indigenous Services Canada's Contaminated Sites on Reserve program which is responsible for more than 2,000 sites south of the 60<sup>th</sup> parallel. Since 1992, this program has successfully remediated over 2,400 contaminated sites on reserve, resulting in additional land available for community or economic development.



## AIR QUALITY

### Target and indicator

**Increase the percentage of the population living in areas where air pollutant concentrations are less than or equal to the Canadian Ambient Air Quality Standards from 60% in 2005 to 85% in 2030 (Minister of Environment and Climate Change; Minister of Health)**

#### Population exposure to outdoor air pollutants

This indicator tracks the proportion of the Canadian population living in areas where outdoor concentrations of air pollutants are less than or equal to the 2020 Canadian Air Ambient Quality Standards. Between the first (2005 to 2007) and most recent (2016 to 2018) reporting periods, the percentage of Canadians living in areas where outdoor concentrations of air pollutants were less than or equal to the 2020 Canadian Ambient Air Quality Standards increased from 60 to 68%.



## Implementation strategy

### ◆ **Develop, administer and enforce measures addressing air pollution**

Develop, administer, and enforce regulatory and non-regulatory measures that reduce the impacts of air pollution on the environment and human health.

### ◆ **Inform Canadians about air quality**

Help Canadians make informed decisions related to their health and the environment by providing them with up to date and accurate information on local outdoor air quality and strategies to improve their indoor air quality.

### ◆ **Research the impacts of air pollution**

Invest in and support research across multiple sectors of the economy that will enable Canadians and scientists to gain a better understanding of the impacts of air pollution on ecosystems, wildlife, and human health and well-being.

### ◆ **Work with partners to address air quality**

Work collaboratively with provinces, territories, and stakeholders to develop and regularly update the Canadian Ambient Air Quality Standards and associated tools and guidance.

## Short-term milestones

### ■ **Maintain reduced air pollutant emission levels**

By 2025, air pollutant emission levels are maintained at or below the targets in the amended Gothenburg Protocol for sulphur dioxide (55% reduction from 2005 levels by 2020), nitrogen oxides (35% reduction from 2005 levels by 2020), volatile organic compounds (20% reduction from 2005 levels by 2020), and fine particulate matter (25% reduction from 2005 levels by 2020).

### ■ **Strengthen Canadian Ambient Air Quality Standards**

By 2025, strengthened Canadian Ambient Air Quality Standards will be in place for sulphur dioxide, nitrogen dioxide, ozone and fine particulate matter.

## SOUND MANAGEMENT OF CHEMICALS AND CONTAMINATED SITES

### Targets and indicators

**By 2024, 100% of the 4,363 existing chemicals that were prioritized under the Chemicals Management Plan have been addressed (Minister of the Environment and Climate Change; Minister of Health)**

### ➤ **Existing chemicals addressed under the Chemicals Management Plan**

This indicator tracks the percentage of the 4,363 existing chemicals that were prioritized under the Chemicals Management Plan that have been addressed. A total of 4,363 priority existing chemicals were identified under the Chemicals Management Plan in 2006. As of December 1, 2021, the Government of Canada has addressed 91% of these priority chemicals.

## **By March 31, 2025, 60% of Federal Contaminated Sites Action Plan eligible sites are closed or in long-term monitoring (Minister of Environment and Climate Change)**

### **➤ Number of Federal Contaminated Sites Action Plan eligible sites that are closed or in long-term monitoring**

This indicator tracks the percentage of Federal Contaminated Sites Action Plan eligible sites on the Federal Contaminated Sites Inventory that are closed or in long-term monitoring. At the end of fiscal year 2020 to 2021, 45.9% of Federal Contaminated Sites Action Plan eligible sites were closed or in long-term monitoring since 2005.

## **Implementation strategy**

### **◆ Address contaminated sites**

Reduce environmental and human health risks from known federal contaminated sites and associated federal financial liabilities, while focusing on the highest priority sites.

### **◆ Assess and manage risks from chemicals**

Assess new substances and address existing substance priorities to determine risks to Canadians and the environment. Develop and implement regulatory and non-regulatory instruments to manage those risks.

### **◆ Continue review of pesticides**

Re-evaluate pesticides currently on the Canadian market by applying modern, evidence-based scientific approaches to assess whether they are still acceptable, and when alerted to potential issues, conduct a special review to determine continued acceptability. Implement regulatory decisions to protect the health of Canadians and the environment from risks associated with the use of pesticides.

### **◆ Inform and increase understanding of harmful substances**

Research, monitor, and better understand the effects of substances harmful to human health and the environment, and communicate these findings in a timely, clear, open and transparent way to inform decision making by Canadians, the private sector and governments.

### **◆ Work with partners to reduce the risks of harmful substances**

Work with domestic, Indigenous, and international partners to develop and implement policies and programs aimed at addressing the environmental and human health risks from harmful chemicals.

## **Short-term milestones**

### **▣ Implement the Chemicals Management Plan**

Between 2022 and 2024, assess and manage risks posed by substances to the environment and human health:

- Each year, from 2022 to 2024, 100% of new chemicals, polymers, and animate products of biotechnology are assessed within prescribed timelines.
- Each year, from 2022 to 2024, 100% of actions are taken in a timely manner every year to protect Canada's environment and the health of Canadians from chemicals found to be a risk to the environment and/or human health.

#### ■ **Implement the Federal Contaminated Sites Action Plan phase IV**

By March 31, 2025, 65% of Federal Contaminated Sites Program-funded sites during Phase IV have completed remediation and risk management work.

#### ■ **Reduce environmental liability**

By March 31, 2025, reduce total environmental liability by \$554 million (from \$917 million) by implementing remediation at Federal Contaminated Sites Program-funded sites that have existing risk reduction plans (highest step completed is greater than or equal to 7).

## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 3.

#### ◎ **Air quality**

Air quality indicators present the concentrations of 5 key air pollutants for Canada. Between 2002 and 2016:

- nitrogen dioxide, sulphur dioxide, volatile organic compounds, and peak ground-level ozone concentrations decreased
- average ground-level ozone concentrations showed almost no change
- fine particulate matter concentrations exhibited variable results

#### ◎ **Emissions of harmful substances to air**

This indicator tracks human-related emissions to air of mercury, lead, cadmium, and their compounds. These substances may have an immediate or long-term harmful effect on the environment and constitute a danger to human life or health.

- mercury, lead and cadmium emissions decreased by 90%, 89% and 95%, respectively, between 1990 and 2019
- the decrease in emissions came mostly from large reductions in the non-ferrous refining and smelting industry

#### ◎ **Household use of chemical pesticides and fertilizers**

The indicators track the percentage of households using chemical pesticides or fertilizers.

- Between 1994 and 2019 there has been an overall decrease in the percentage of households in Canada using chemical pesticides and fertilizers on their lawns and gardens.
- Nonetheless, since 2013, the percentage of households using pesticides has remained stable at 19% and increased slightly to 20% in 2019.
- Further, despite the decrease in the percentage of households using chemical fertilizers from 1994 to 2011, their use has increased since 2011 to reach 28% in 2019.

### ⊙ **Human exposure to harmful substances**

The federal government monitors concentrations of many substances, including mercury, lead, cadmium and bisphenol A in the Canadian population through the Canadian Health Measures Survey. For the 5 survey cycles from 2007 to 2017:

- the average concentrations of mercury remained stable
- the average concentrations of lead showed a declining trend, with a decrease of 28% between Cycle 1 and Cycle 5
- the average concentrations of cadmium showed a declining trend in the total population, with a decrease of 18% between Cycle 1 and Cycle 5
- the average concentrations of bisphenol A showed a declining trend, with a decrease of 33% between Cycle 1 and Cycle 5

### ⊙ **Releases of harmful substances to water**

The mercury, lead and cadmium releases to water indicators track facility-based releases of these substances to water.

- Most releases of mercury, lead and cadmium to water are contained in effluent from wastewater treatment facilities whose main source of these substances usually comes from industrial discharges to sewers.
- Facility-based releases of mercury, lead and cadmium to water were 72%, 60% and 41% lower in 2019 than in 2003, respectively.





## CHAPTER 4

# PUBLICIZE RESEARCH, KNOWLEDGE AND DATA FOR SUSTAINABLE DEVELOPMENT

Federal Environmental Perspective on SDG 4

## The Environmental Perspective

Canadians need knowledge and information about the environment to take action on sustainable development. This chapter's focus on sharing research, knowledge and data for sustainable development with Canadians supports [SDG Global Indicator Framework](#) Target 4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles.

[Climate change education](#) is recognized as a priority in the Paris Agreement and the SDGs. Effective climate change education is fundamental to overcoming climate denial, increasing climate literacy and supporting climate action. [The Canada Climate Change and Education report](#), released by [Learning for a Sustainable Future](#) in 2019, showed that while the majority of Canadians are concerned about climate change, 86% indicated that they need more information.

Schools, universities and other educational institutions are [taking action](#) for sustainable development. For example, a Canada-wide census by the Sustainability and Education Policy Network in 2019 showed that 43% of school divisions had participated in a sustainability certification program, and 25% had sustainability staff. Further, in a 2018 survey undertaken for Canada's 6th National Report to the Convention on Biological Diversity, 10 out of 10 participating provinces and territories reported that biodiversity had been incorporated into elementary and secondary school curricula.

The report also underscores the importance of Indigenous Knowledge in contributing to the effectiveness of Canada's various biodiversity initiatives, providing information regarding the sustainable use of plants and animals, as well as the relationships and current stresses in ecosystems.

Moving toward sustainability will require action across Canadian society, including informal education beyond the classroom.

#### **WHERE THE GOVERNMENT OF CANADA IS GOING**

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 4 are listed below.

- Develop a climate data strategy to ensure that the private sector and communities have access to data to inform planning and infrastructure investments (Minister of Environment and Climate Change; Minister of Public Safety; President of the Queen's Privy Council for Canada and Minister of Emergency Preparedness; Minister of Innovation, Science and Industry).
- Support innovation ecosystems across the country to support job creation, technology adoption and scale-up. This includes safeguarding Canada's world-leading research ecosystem, as well as our intellectual property intensive businesses (Minister of Innovation, Science and Industry; Minister of Public Safety).

## **How the Government of Canada Contributes**

In Canada, provinces and territories are responsible for organizing, delivering and assessing all levels of education. One way in which the Government of Canada contributes to sustainable development knowledge and education is by funding research, through the Natural Sciences and Engineering Research Council of Canada and the Social Sciences and Humanities Research Council for example.

The Government of Canada is implementing the Science Literacy Promotion Initiative with Environment and Climate Change Canada scientists to improve understanding of the science behind environmental issues related to a changing climate and what our future climate will look like. The Scientists-at-Large activity under this initiative will connect scientists with the Canadian public through speaking opportunities and other communications activities to allow the government to communicate science in a meaningful way.

The Government of Canada is working to build knowledge through research in areas such as water-related sustainability, sustainable fisheries, clean technology, plastic pollution and waste prevention, lands and forests management, wildlife species recovery, coastal and marine ecosystems and marine protected areas. It also plays a role in providing information about and raising awareness of sustainable development. This includes enhancing public awareness of and preparedness for natural disasters, providing information about local outdoor air quality and harmful substances, as well as supporting sustainable choices.

For example, the [Canadian Centre for Climate Services](#) provides information to improve Canadians' understanding of how the climate is changing and how those changes could affect them, as well as guidance and resources to make climate-smart decisions. The government also provides information on how to assess and improve the energy performance of old and new homes that they can implement through government programs and incentives to consume less energy, save money and fight climate change, such as the [Canada Greener Homes Grant](#). Through its [Energy Efficiency Insider](#), Natural Resources Canada provides newsletters with tips on managing energy usage for commercial and institutional buildings.

The Government of Canada is implementing the [Roadmap for Open Science](#). This will make the scientific research process more inclusive and accessible to scientists and Canadians through making data and publications open and making research understandable and useful.

In addition, the government has conducted a national assessment process of how and why Canada's climate is changing, the impacts of these changes on communities, environment, and the economy and how Canadians are adapting. The assessment resulted in a series of [reports](#) that raise awareness of the issues facing the country and provide information to support sound decisions and actions that address climate change and adapt to its impacts. For example, the [National Issues Report](#) was released in June 2021. Environment and Climate Change Canada has also undertaken preliminary research that will be used to support the government's ongoing communication with Canadians about climate change and its impacts. The key results from this survey show an increase in: knowledge and awareness of climate change, environmental and nature conservation topics; the perception that individual actions have a positive impact on environmental change; and actions taken to help fight climate change, conserve nature and achieve a cleaner and safer environment.

The Government of Canada works with provinces and territories through the [Council of Ministers of Education in Canada](#) (CMEC). [This council](#) provides leadership in education at the pan-Canadian and international levels. CMEC has included education for sustainable development as one of the key activity areas in [Learn Canada 2020](#), its framework to enhance Canada's education systems, learning opportunities, and education outcomes.

Canada also demonstrates leadership internationally. As a member state of the [United Nations Economic Commission for Europe](#), through CMEC, the Government of Canada has committed to incorporate sustainable development themes into formal, non-formal, and informal education and to report on its implementation. The Social Science and Humanities Research Council of Canada has also funded the Monitoring and Evaluating Climate Communication and Education Project that supports a global network working to improve the quantity and quality of climate change communication and education.

The [Program of Applied Research on Climate Action](#) was launched in 2021. It is a multi-year research initiative into the application of behavioural science insights and methods accompanied by robust policy analysis. It aims to provide data, knowledge and insight to support policy, program and communications efforts that will advance climate and environmental action.

## INDIGENOUS KNOWLEDGE IN ENVIRONMENTAL RESEARCH

Indigenous peoples have used Indigenous Knowledge in decision making about environmental management for millennia. While there is no single definition of Indigenous Knowledge, the term refers to a set of complex knowledge systems based on the worldviews of Indigenous peoples. Indigenous Knowledge reflects the unique cultures, languages, governance systems and histories of Indigenous peoples from a particular location. Indigenous Knowledge is dynamic and evolves over time. It builds on the experiences of earlier generations and adapts to present conditions. First Nations, Inuit and the Métis Nation each have a distinct way of describing their knowledge. Knowledge-holders are the only people who can truly define Indigenous Knowledge for their communities.



Many international agencies and instruments have addressed Indigenous Knowledge, including the [United Nations Convention on Biological Diversity](#) and the [United Nations Declaration on the Rights of Indigenous Peoples](#). Many sections of the Declaration work together to protect Indigenous Knowledge. The Declaration recognizes “that respect for Indigenous Knowledge, cultures and traditional practices contributes to sustainable and fair development and proper management of the environment.” Canada is obliged to respect and protect the rights articulated in the Declaration. Indigenous Knowledge is defined in article 31 as: the right to maintain, control, protect and develop their cultural heritage, Traditional Knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. Indigenous peoples also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, Traditional Knowledge, and traditional cultural expressions. [Guides](#) such as the First Nations Principles of ownership, control, access, and possession (OCAP®) can be used to ensure that Indigenous peoples have more control over their intellectual property.

The [United Nations Declaration on the Rights of Indigenous Peoples Act](#) mandates Canada to implement the Declaration in cooperation with Indigenous peoples in a whole-of-government approach. Indigenous Knowledge helps federal organizations improve their understanding of Indigenous worldviews, Indigenous cultures, the environment, issues affecting the environment, impacts those issues are having now and in the future, and ways to address them. The Government of Canada is working to renew its relationship with Indigenous peoples based on a recognition of rights, respect, cooperation and partnership. This work includes collaborating with Indigenous Knowledge Holders on research projects. Working with Indigenous partners, the Government of Canada is beginning to understand the importance of Indigenous Knowledge systems that have been handed down since time immemorial. The Government of Canada will continue to collaborate with Indigenous partners and Indigenous Knowledge Holders to ensure that Indigenous Knowledge systems are supported and considered in all stages of environmental research and monitoring activities.



# SUSTAINABLE DEVELOPMENT INFORMATION

## Targets and indicators

**By 2026, increase the number of Canadians accessing climate information through the Canadian Centre for Climate Services from a baseline of 200,815 visits to the portals in 2021 (Minister of Environment and Climate Change)**

### ➤ **Number of clients accessing climate information through Canadian Centre for Climate Services' Climate Information Portals**

This indicator tracks user visits to the Canadian Centre for Climate Services portals, which provide Canadians with information and support to consider climate change in their decisions. In 2020 to 2021 there were 200,815 visits to the portals.

**By 2026, increase the annual number of Canadians accessing environmental sustainability information through the Canadian Environmental Sustainability Indicators website, and through the Canadian Indicator Framework portal, to 260,000 visits from a baseline of 239,188 visits in 2020 (Minister of Environment and Climate Change)**

### ➤ **Number of Canadians accessing environmental sustainability information through the Canadian Environmental Sustainability Indicators website and the Canadian Indicator Framework portal**

This indicator tracks user visits to the Canadian Environmental Sustainability Indicators website and the Canadian Indicator Framework portal, which provide Canadians with information on the environment. In 2020 there were 239,188 visits to the Canadian Environmental Sustainability Indicators website.

## Implementation strategy

### ◆ **Promote environmental knowledge and data sharing**

Provide Canadians with access to information related to biodiversity, ecosystems, air quality, nature conservation, climate change action and adaptation, as well as environmental and weather prediction services through reports, interactive platforms, communication activities, and applications such as the WeatherCAN app.

### ◆ **Provide information to help consumers make more sustainable choices**

Support education, information sharing, and labelling initiatives that provide individuals with the appropriate skills and competencies to become sustainable consumers and improve transparency for supply chain managers and enhance labelling for consumer products, giving Canadians greater access to information about the substances to which they are exposed. These actions will also provide consumers with greater assurance about the accuracy of environmental claims.

### ◆ **Provide science and knowledge to inform ambitious climate action**

Provide evidence that identifies emission reduction opportunities, addresses gaps in knowledge, provides access to open data to track climate change, informs resiliency and adaptation priorities, and evaluates the effectiveness of our actions. Generate knowledge and enable collaborations to address the impacts of climate change in the Arctic, through studies and initiatives such as the Canada's Climate Change Adaptation Platform, which provides a multi-sectoral forum that brings together jurisdictions and sectors to foster greater collaboration on emerging adaptation issues.

## Short-term milestones

### ■ Implement an environmental marketing campaign

By 2026, develop and implement a multi-year marketing campaign to generate increased awareness and incite behavioural change on climate change, nature conservation, and a cleaner, safer environment.

### ■ Roll out the Science Literacy Promotion Initiative

By the end of 2023, have a critical mass of trained scientists able to support partners' activities.

## SUSTAINABLE DEVELOPMENT RESEARCH

### Target and indicator

**Increase Canada's ranking for Average Relative Citation in natural sciences, engineering, and life sciences to the top 10 of OECD countries by 2025 (Minister of Innovation, Science and Industry)**

### ↗ Canada's ranking for Average Relative Citation in natural sciences, engineering, and life sciences

This indicator tracks the Average Relative Citation factor, a measure of research excellence. It compares countries by how frequently their average publication in a specific field is cited. Average Relative Citation factor does not reflect the quantity of a country's research output. While Canadian publications in natural sciences and engineering have been cited more frequently since 2002, Average Relative Citation factors in some other OECD nations have increased at higher rates, thereby decreasing Canada's relative ranking.

### Implementation strategy

#### ◆ Promote better environmental decision making

Support data collection and dissemination initiatives aimed at building a robust foundation of data to better understand the impacts of climate change and other environmental issues, and protect our diverse ecosystems. Take steps to increase knowledge of Canada's ecosystems, help monitor environmental trends, and promote better decision making for a nature-positive world (through, for example, Canada's Census of the Environment).

#### ◆ Work with partners on sustainable development research initiatives

Support environmental research through increasing capacity and leveraging Canadian and international research partnerships and fund projects that address identified research gaps in areas such as plastic pollution, climate change science and behavioural science. These knowledge gaps include research related to the potential human health effects and ecotoxicology of plastics in Canada and research that supports generating new knowledge and/or technology to address complex challenges and creates economic, social and/or environmental benefits. It could also include the application of behavioural science insight and methods to promote climate and environmental action.

## Short-term milestones

### ■ Establish the national freshwater data strategy

By March 2024, ensure that the National Freshwater Data Strategy is established

### ■ Establish the national freshwater science agenda

By March 2024, ensure that the National Freshwater Science agenda is established

## TRAINING AND SKILLS IN SUSTAINABLE DEVELOPMENT

### Target and indicator

**175,000 students in science, technology, engineering and mathematics (STEM) graduate in Canada by December 2025 (Minister of Innovation, Science and Industry)**

### ➤ Number of science, technology, engineering and mathematics graduates in Canada

This indicator tracks the number of post-secondary graduates in the science, technology, engineering and mathematics fields in Canada each year. In 2017, a total of 124,974 Canadians graduated from these fields.



## Implementation strategy

### ◆ **Increase the number of young Canadians pursuing skills training or careers in environmental sectors**

The Youth Employment and Skills Strategy (YESS) is the Government of Canada's commitment to help young people (ages 15 to 30) gain the skills, abilities and experience they need to make a successful transition into the labour market. YESS puts a particular focus on supporting those who face barriers such as youth living with disabilities and racialized youth, as well as supporting culturally-safe programming that addresses the unique challenges Indigenous youth may face. YESS will help connect youth participants to important skills, experience and quality jobs in the green economy.

### ◆ **Support youth skill development in environmental sectors**

Continue to work with partners to deliver programming for youth, including programs specifically for Indigenous youth, as well as youth that may face barriers to employment such as those from racialized communities or youth with disabilities, to prepare young Canadians for success in high-growth sectors such as the green economy. Support employers providing internship and other work opportunities that give youth hands-on experience working on environmental projects. These programs support Canadian youth in preparing for future employment and gaining the necessary skills to participate in the environmental and clean technology sectors.

## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 4.

### ◎ **Funding invested in research related to the environment and sustainable development**

This indicator tracks the amount of funding invested each year in research related to the environment and sustainable development by the 3 federal granting agencies: the Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council of Canada, and the Social Sciences and Humanities Research Council of Canada. In 2020 to 2021, the amount invested in research related to the environment and sustainable development by the 3 federal granting agencies was \$293.9 million.

### ◎ **Ground-based infrastructure to receive earth observation data to monitor climate action**

This indicator tracks the amount of earth observation data received by the Canada Centre for Mapping and Earth Observation and made available to Canadians and critical government services. These datasets enable monitoring of climate change effects on phenomena such as permafrost, arctic and sea ice, coastal conditions, flooding extents, land cover (including forest, agriculture, inland waters) and infrastructure (for example, roads, bridges, and runways). In 2020 to 2021, the number of successful satellite receptions across augmented infrastructure was 13,400 receptions.

### ◎ **Number of international data partnerships and engagements that support decision making on sustainable development**

This indicator tracks international data partnerships that enable accessibility, interoperability, and integrated data to support decision making, including on climate change. Since 2020, there have been 4 ongoing international engagements.





## CHAPTER 5

# PROMOTE CANADIAN WOMEN'S PARTICIPATION IN THE ENVIRONMENTAL AND CLEAN TECHNOLOGY SECTOR

Federal Environmental Perspective on SDG 5

## The Environmental Perspective

The impacts of climate change, biodiversity use and loss, and other environmental issues can be experienced differently by women, men, and gender-diverse people due to pre-existing social inequalities based on social identity factors such as gender, race, ethnicity, age, physical or mental disability, and many others. This chapter's focus on increasing Canadian women's participation in the environmental and clean technology sector to advance gender equality in decision making related to the environment and climate change supports [SDG Global Indicator Framework](#) targets 5.1: End all forms of discrimination against all women and girls everywhere; 5.5: Ensure women's

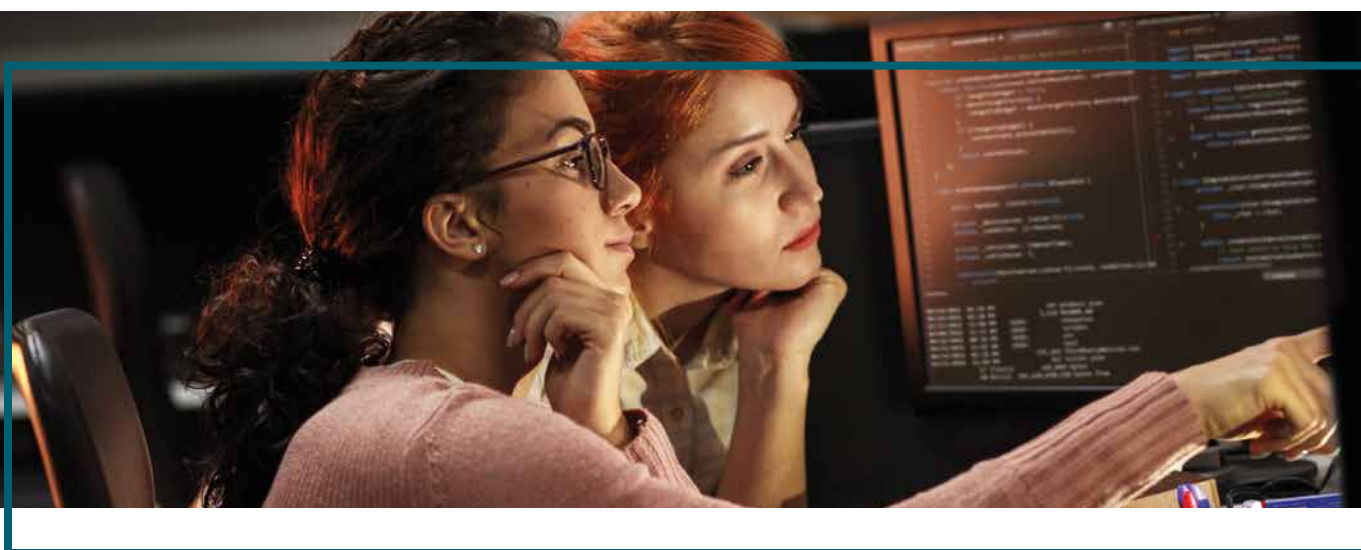
full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life; and 5.c: Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

In Canada, there are [gendered differences](#) in attitudes concerning the environment, biodiversity use and loss and climate change that can affect support for mitigation and adaptation efforts; substantial differences in participation in environmental governance and employment activities; and links between natural disasters and decreases in mental health, especially among women and gender-diverse people, and increases in [gender-based violence](#).

Despite the [gendered and intersectional impacts](#) of climate change and biodiversity loss, women in Canada and around the world are significantly underrepresented in decision-making processes related to the environment and climate action. Women are also often underrepresented in particular sectors of the economy and in government positions, including the environmental sector and occupations. For example:

- in 2016, women accounted for less than one third (28.7%) of farm operators in Canada, and female farm operators on average also owned less land, borrowing more of their total farm land (71.3%) than their male counterparts who borrowed just over 50% of their total farm land
- in 2016, women made up only 14% of the Canadian mining labour force
- in 2017, women made up 26% of people employed in the energy sector in Canada
- in 2019, women held 41% of jobs in the Canadian clean technology sector
- in 2019, two thirds of Canadian post-secondary graduates in science, technology, engineering and mathematics were male, with an even greater disparity in engineering and computer science programs and skilled trades
- in 2020, globally, women held 15% of top jobs as ministers of environmentally-related ministries

It is important to include diverse individuals and groups of people, especially those who have faced systemic inequality in environmental decision-making processes, as full, equal, and meaningful participants. Doing so will help to ensure diverse input and meaningful participation in climate and environmental action that will lead to more equitable and sustainable solutions.



## INDIGENOUS WOMEN IN CANADA

Indigenous women's physical, spiritual, and cultural relationship with the environment is unique and differs across First Nations, Inuit, and the Métis Nation. The relationship between Indigenous women and the land is often characterized by a sense of responsibility ranging from acting as keepers and teachers of community-based ecological knowledge, to initiating action to defend the land, water, nature, and the environment.

Indigenous women have experienced the impacts of climate change, biodiversity loss, and a changing environment for generations. For example, [northern food insecurity](#) disproportionately affects Inuit women, and women's cultural activities such as language, food harvesting and picking medicinal plants can be affected by loss of access to land. Many elders also express [ecological grief](#) associated with loss of their own knowledge and identity associated with "knowing the land," and the loss of a cultural system of land-based knowledge that was passed on through generations.

Nevertheless, First Nations, Inuit and Métis women have been leaders in conserving the environment, and their knowledge and experiences in fighting climate change and biodiversity loss greatly contributes to community-led [adaptation and mitigation initiatives](#). They continue leading these efforts despite the continued prevalence and impact of systemic violence on Indigenous women.



### WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 5 are listed below.

- Continue to support ministers working to advance gender equality, notably as it relates to economic participation and prosperity, including economic recovery, leadership and democratic participation, and poverty reduction, health and well-being (Minister for Women and Gender Equality and Youth).
- Ensure that public policies are informed and developed through an intersectional lens, including applying frameworks such as Gender-based Analysis Plus (GBA Plus) and the quality of life indicators in decision making (whole-of-government commitment).

## How the Government of Canada Contributes

Canada is taking domestic and international action to address systemic barriers to equality for all women, girls and gender-diverse people. This includes working to advance gender equality and diversity in the fields of science, technology, engineering, and mathematics (STEM) and at all levels of decision making.

The Government of Canada's [Gender-based Analysis Plus](#) (GBA Plus) tool is an analytical process for the assessment of systemic inequalities, as well as a means to ensure that an intersectional lens—one that considers biological (sexes) and socio-cultural (gender) differences, as well as other identity factors such as race, ethnicity, religion, age, mental or physical disability—is applied to all policies, programs, and initiatives, including those pertaining to the environment, to support diverse groups in Canada equitably. GBA Plus involves taking a gender- and diversity-sensitive approach to all work. In Budget 2018, the Government of Canada also introduced the [Gender Results Framework](#), a whole-of-government tool designed to track how Canada is currently performing, define what is needed to achieve greater equality, and determine how progress will be measured.

The [Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls](#) and its [Calls for Justice](#) called upon the Government of Canada, provincial, territorial, Indigenous, and municipal governments and Indigenous partners to work together to develop a National Action Plan in response to the issues identified by the Inquiry. This led to the [2021 National Action Plan: Ending Violence Against Indigenous Women, Girls, and 2SLGBTQQIA+ People](#) and the [Federal Pathway to Address Missing and Murdered Indigenous Women, Girls and 2SLGBTQQIA+ People](#).

Canada is working to strengthen its relationship with Indigenous women's organizations. Canada is finalizing and implementing whole-of-government agreements with 3 national Indigenous women's organizations: the [Native Women's Association of Canada](#), [Pauktuutit Inuit Women of Canada](#), and [Les Femmes Michif Otipemisiwak](#). The agreements set out how the Government of Canada will work with these organizations to ensure that the voices of Indigenous women in Canada are heard. The government is also working with grassroots Indigenous women's and 2SLGBTQQIA+ organizations to help these organizations bring forward their priorities and perspectives to support the development of federal policy, as well as ensuring that their priorities, including those related to the environment, biodiversity loss, and climate change, are advanced.

Internationally, Canada supports a number of international instruments that advance gender equality and the empowerment of all women and girls within the context of the environment. Canada continues to support implementation of the [Gender Action Plan adopted under the United Nations Framework Convention on Climate Change](#) (UNFCCC), which aims to increase women's participation and leadership in climate action and to better integrate gender considerations in climate plans and policies.

Canada also established the first Group of Seven (G7) Gender Equality Advisory Council, which helps integrate gender equality and gender-based analysis across all G7 themes, and supports the [Convention on Biological Diversity's \(CBD\) Gender Plan of Action](#). More recently, Canada supported actions to advance the consideration of gender perspectives in the process to develop the post-2020 Global Biodiversity Framework. Canada has also taken a leading role in advocating for including gender issues in implementing the CBD.

Canada's international climate finance commitment aligns with Canada's Feminist International Assistance Policy, which targets gender equality and empowerment of women and girls. See chapter 17 for more details.



# WOMEN'S PARTICIPATION IN THE ENVIRONMENTAL AND CLEAN TECHNOLOGY SECTOR

## Target and indicator

**By 2026, increase the number of women employed in the clean technology sector from a baseline of 86,694 in 2019 (Minister of Innovation, Science and Industry)**

### ▮ Number of women working in the clean technology sector

This indicator tracks women's participation in the clean technology sector and comes from Statistics Canada's [Environmental and Clean Technology Products Economic Account](#). In 2019, 86,694 women were employed in the clean technology sector.

## Implementation strategy

### ◆ Disaggregate data

A better understanding of the context in which diverse women, men, and gender-diverse people participate in environmental sectors and activities requires robust data from a variety of sources disaggregated by a number of factors. These include but are not limited to race, national and ethnic origin, Indigenous origin, age, sexual orientation, socio-economic condition, place of residence and disability. Robust data, both quantitative and qualitative, provide the evidence required to identify and address disproportionate impacts and needs of various individuals and groups.

### ◆ Invest in women

Fund and support women's involvement in environmental, clean technology, intellectual property, agricultural, energy, and natural resource fields, including through the Women's Entrepreneurship Strategy and partnerships with Indigenous women's organizations.

### ◆ Support skills and training

Eliminate barriers and promote women's participation in environmental activities, sectors, and decision-making processes through skills, training, leadership, professional internship opportunities, mentorship and coaching initiatives, including through Environment and Climate Change Canada's Science Horizons Youth Internship program under the federal Youth Employment and Skills Strategy, as well as international activities facilitated through the Feminist International Assistance Policy and the Equal by 30 Campaign.

## Short-term milestone

### ▣ Support GBA Plus across the Government of Canada

By 2024, support the development and inclusion of Indigenous, culturally-competent Gender-based Analysis Plus frameworks and perspectives across the Government of Canada

## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 5.

### 🕒 **Persistence and representation of women in science, technology, engineering and mathematics (STEM) programs**

This indicator examines the occupational pathways of women and men with postsecondary credentials in STEM fields, in which women are underrepresented. It supports Canada's Gender Results Framework pillar of Education and skills development. The proportion of women among STEM graduates or sixth-year students in 2015 was 43%.

### 🕒 **Proportion of leadership roles held by women**

This indicator consists of 6 separate sub-indicators which measure the proportion of women in various leadership roles. The leadership roles include members of national Parliament and federal cabinet, federal and provincial judges, various types of management position, Chiefs in First Nation communities and First Nations band council members. In 2020, 29% of members of national Parliament, 48.6% of members of federal cabinet and 35.9% of all management occupations were women. In 2019, 18.5% of Chiefs in First Nation communities and 27.4% of First Nations band council members were women. In 2016, 39.3% of federal and provincial judges were women.

### 🕒 **Number of female farm operators in Canada**

This indicator tracks women's participation in managerial/decision-maker positions in the primary agriculture sector to support diversity and inclusiveness efforts in the sector, contributing to the sector's competitiveness and prosperity. Over the past 20 years, the proportion of female farm operators has increased. In 1996, females represented 25.2% of farm operators. By 2016, that proportion had risen to 28.7%, accounting for 77,970 female farm operators.

### 🕒 **Number of individuals with an enhanced awareness, and/or knowledge and/or skills to promote women's participation and leadership in public life**

This indicator tracks the number of individuals with enhanced awareness, knowledge and/or skills to promote women's participation and leadership in public life, supported by Global Affairs Canada programming. It supports Global Affairs Canada's Feminist International Assistance Policy's inclusive governance action policy action area that includes actions related to democracy, human rights and the rule of law. There is currently no data.

🕒 **Number of people newly-employed in the environment sector, including in technical, supervisory and management roles supported by Global Affairs Canada programming**

This indicator supports Global Affairs Canada's Feminist International Assistance Policy's environment and climate action policy action area, which focuses on adaptation and mitigation, as well as on sustainable resource and water management and environmental protection. In 2019 to 2020, 3,597 people (112 women; 133 men; 3,352 gender not indicated) were newly employed in the environment sector, including in technical, supervisory and management roles.

🕒 **Percentage of bilateral international development assistance investments that either target or integrate gender equality and the empowerment of women and girls**

This indicator tracks the percentage of bilateral international development assistance investments that either target or integrate gender equality and the empowerment of women and girls, supported by Global Affairs Canada programming. It supports Global Affairs Canada's Feminist International Assistance Policy's 6 policy action areas: gender equality and the empowerment of women and girls, human dignity, growth that works for everyone, environment and climate action, inclusive growth, and peace and security. In 2019 to 2020, 97% of bilateral international development assistance targeted or integrated gender equality and the empowerment of women and girls.







## CHAPTER 6

# ENSURE CLEAN AND SAFE WATER FOR ALL CANADIANS

Federal Environmental Perspective on SDG 6

## The Environmental Perspective

While Canada has about 20% of the planet's fresh water resources, with the Great Lakes as one of the largest systems of fresh surface water in the world, and 7% of the world's renewable fresh water, ensuring the country has clean and safe water remains an important issue. This chapter's focus directly supports [SDG Global Indicator Framework](#) targets 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all; 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally; and 6.5: By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.



In Canada, lakes and rivers supply drinking water to millions of Canadians and sustain a rich variety of plants and animals. These waters also provide opportunities for swimming, boating, and recreational fishing and support economic activities such as tourism, commercial fisheries, agriculture, shipping, manufacturing, and energy production. Groundwater also provides drinking water to Canadians, sustains stream and river base flow during dry periods, and supports ecological services.

Canada's waters are an irreplaceable natural heritage that Canadians should use sustainably and be able to access equitably. Sustainably using Canada's water resources means ensuring that all Canadians have access to clean, safe and healthy drinking water, as well as to the other ecosystem services that healthy waters provide. It also means ensuring that effective wastewater systems are in place that achieve high standards with low operating risks so that sanitation systems across Canada protect the health and well-being of Canadians and ecosystems.

Many lakes and rivers are affected by water pollution and contamination. For example, [150 billion litres](#) of untreated and undertreated wastewater (sewage) is released into Canadian waterways every year. Urban and agricultural run-off and undertreated wastewater have caused excessive nutrient levels in some lakes, streams, and rivers, leading to algal blooms and zones of low oxygen, thereby impacting the water sources Canadian communities rely on and eroding access to safe water for swimming and recreation. Agricultural actions related to sustainable water management are addressed in chapter 2.

The Government of Canada works with provinces, territories, Indigenous peoples, academics and stakeholders to reduce water pollution and ensure ecosystem health—for example, by reducing phosphorus loading to Lake Erie and Lake Winnipeg.

Canada and the United States have a long history of effective cooperation in managing their shared waters. More than 40% of the Canada-U.S. border is water. In addition, more than 300 rivers and lakes (some of the largest in the world) lie along, or flow across, the border between Canada and the United States. Both countries rely on boundary and transboundary waters as a source of drinking water, as well as to support farming, tourism and recreation, economic growth and clean energy production.

## **WHERE THE GOVERNMENT OF CANADA IS GOING**

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 6 are listed below.

- Establish a Canada Water Agency and implement a strengthened Freshwater Action Plan, including a historic investment to provide funding to protect and restore large lakes and river systems, starting with the Great Lakes-St. Lawrence River System, Lake Simcoe, the Lake Winnipeg Basin, the Fraser River Basin and the Mackenzie River Basin. Invest in the Experimental Lakes Area in northern Ontario to support international freshwater science and research (Minister of Environment and Climate Change; supported by the Minister of Agriculture and Agri-Food).
- Following the establishment of a Canada Water Agency, advance the modernization of the *Canada Water Act* to reflect Canada's freshwater reality, including climate change and Indigenous rights (Minister of Environment and Climate Change).

## How the Government of Canada Contributes

Freshwater management in Canada is a responsibility shared between federal, provincial, territorial, and Indigenous governments. The Government of Canada is involved in areas such as fisheries, pollution prevention, shipping and navigation, international relations, transboundary waters, and creating and managing protected areas. The federal government is also responsible for managing fresh water on federal lands, and plays a leadership role in science and research on drinking water by developing the Guidelines for Canadian Drinking Water Quality in partnership with the provinces and territories.

The [Canada Water Act](#) provides a framework for collaboration among federal, provincial, and territorial governments in matters related to water resources. Each level of government has a different role and there are many areas of shared responsibility. Joint projects involve regulating, dividing up, monitoring, and/or surveying water resources, as well as planning and implementing programs related to conserving, developing, and using water resources.

The [Boundary Waters Treaty](#) of 1909 is the basis for collaborative management of Canada-U.S. boundary and transboundary waters. Environment and Climate Change Canada contributes to managing boundary and transboundary water through the International Joint Commission, created under the Boundary Waters Treaty. Canada is also a signatory to a number of other international agreements with the U.S. to manage boundary and transboundary waters including the [Great Lakes Water Quality Agreement](#) and the [Columbia River Treaty](#), among others. This work includes actions to restore and protect Lake Erie and other Great Lakes, as well as the 2016 commitment to reduce annual phosphorous loadings into Lake Erie by 40% from 2008 levels.



## BILATERAL AND DOMESTIC ACTION TO RESTORE AND PROTECT THE GREAT LAKES

The Great Lakes Basin is home to 1 in 3 Canadians and 1 in 10 Americans. It provides significant environmental and economic benefits to both countries. The Governments of Canada and the United States recognize the integral relationship between an environmentally healthy Great Lakes system and the social and economic well-being of both countries, as well as the direct connection between water quality and human health.

For 50 years, the Canada-United States Great Lakes Water Quality Agreement (GLWQA) has provided a binational framework for pursuing cooperative binational and domestic actions to restore and protect the water quality of the Great Lakes. Environment and Climate Change Canada and the United States Environmental Protection Agency lead the implementation of the GLWQA in cooperation with other federal government agencies, state and provincial governments, Tribal governments, First Nations, Métis, municipal governments, watershed management agencies, and other local public agencies.

The Government of Canada is working in partnership with the Government of Ontario to address Great Lakes issues and deliver on GLWQA commitments through the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health (2021 to 2026). In addition, it is working with the province and other partners on the Canada-Ontario Lake Erie Action Plan, which outlines over 120 actions to reduce phosphorus levels in Lake Erie in 5 key areas: reducing phosphorus loadings; ensuring effective policies, programs and legislation; improving the knowledge base; educating and building awareness; and strengthening leadership and coordination.



The Government of Canada also has agreements with provinces to work collaboratively on water issues such as the Canada-Quebec Agreement on the St. Lawrence 2011 to 2026 ([St. Lawrence Action Plan](#)), the 2021 Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, and the Canada-Manitoba Memorandum of Understanding Respecting Lake Winnipeg and the Lake Winnipeg Basin (2021 to 2026).

Indigenous peoples have freshwater-related rights under many historic and modern treaties and self-government agreements. They are also involved in transboundary freshwater management, including through some water management boards.

## COLLABORATING TO IMPROVE THE HEALTH OF LAKE WINNIPEG

Lake Winnipeg is the sixth largest freshwater lake in Canada, providing important social and economic benefits to Manitobans and to nearby Indigenous communities. Excessive nutrient loading and climate change have led to high phosphorus levels in the lake, which can result in harmful algal blooms and excessive plant growth that reduces the availability of oxygen. Reducing phosphorus loads in Lake Winnipeg is important to maintaining its water quality and ecological health.

The Government of Canada is working with the Government of Manitoba to address these challenges through the [Canada-Manitoba Memorandum of Understanding Respecting Lake Winnipeg and the Lake Winnipeg Basin](#), which was first signed in 2010 and renewed in 2021. The Government of Canada is also promoting recovery of the lake through the [Lake Winnipeg Basin Program](#), which provides targeted funding for activities such as building retention ponds to intercept water flow and capture nutrients, stabilizing riverbanks and lake shorelines, restoring wetlands, and implementing livestock management practices.

Provinces and territories have responsibility over areas of water management and protection within their borders, including water allocation and use, drinking water and wastewater services, source water protection, and thermal and hydroelectric power development. Most delegate some authority to municipalities, and, in certain cases, local conservation authorities develop and deliver watershed-based resource management programs on behalf of provinces and municipalities.

Health Canada works with provincial and territorial governments to develop guidelines that set out the maximum acceptable concentrations of specific contaminants in drinking water. These guidelines are designed to protect the health of the most vulnerable members of society, such as children and the elderly. They set out the basic parameters that every water system should strive to achieve in order to provide the cleanest, safest and most reliable drinking water possible. All provinces and territories use the guidelines as the basis for their regulations and requirements for drinking water quality and safety, ensuring that Canadians benefit from evidence-based decisions on Canadian fresh water.

Through the Green Infrastructure stream of the Investing in Canada Infrastructure Program, Infrastructure Canada is upgrading wastewater treatment or collection infrastructure, upgrading drinking water treatment and distribution infrastructure and increasing capacity to reduce and address soil and air pollutants. Investments under other infrastructure legacy programs and the Canada Community-Building Fund are also contributing to these priorities.

Federal regulations developed under the *Fisheries Act* help to protect the ecosystem health of Canada's waters by managing impacts to fish and fish habitat, and to the use of fish by humans. The [Metal and Diamond Mining Effluent Regulations](#) govern the discharge of mining effluent into water frequented by fish and improve the monitoring of environmental effects, while the [Pulp and Paper Effluent Regulations](#) govern the discharge of harmful substances from pulp and paper mills into water frequented by fish. The [Wastewater Systems Effluent Regulations](#), also established under the *Fisheries Act*, include mandatory minimum effluent quality standards that can be reached through secondary wastewater treatment, and specify requirements for monitoring, record-keeping, reporting and toxicity testing.



## TRANSBOUNDARY ACTION PLAN FOR THE SALISH SEA ECOSYSTEM

Environment and Climate Change Canada and the United States Environmental Protection Agency recently signed a new 4-year Action Plan under their Joint Statement of Cooperation—first signed in 2000—that commits both countries to work together on transboundary issues and challenges facing the Salish Sea ecosystem. Under the Action Plan, the Government of Canada is engaging with partners across the region to advance shared priorities for ecosystem health, including information sharing, improving transboundary coordination, and jointly reporting on transboundary ecosystem health.

Recognizing the importance of clean drinking water for all Canadians and that access remains an issue in First Nations communities on reserve, the draft Federal Sustainable Development Strategy includes a target, indicator, and action on this issue in Chapter 10: Take action on environmental inequalities and collaborate on environmental and natural resource management.

## CLEAN AND SAFE WATER

### Targets and indicators

**By 2026, complete all actions required to restore 6 Areas of Concern in the Great Lakes (Minister of Environment and Climate Change)**

#### ➤ Number of actions taken to restore 6 Areas of Concern in the Great Lakes

This indicator tracks actions taken to restore 6 Areas of Concern in the Great Lakes. Areas of Concern are geographic locations where water quality and ecosystems have been severely degraded by human activities. Implementing actions outlined in the 2021 to 2026 [Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health](#) will contribute to restoring these Areas of Concern. As of 2021, there are 14 remaining Areas of Concern in the Canadian Great Lakes of which 5 are binational and shared with the United States.

**By 2026, report on all 9 objectives to be achieved for the Great Lakes (Minister of Environment and Climate Change)**

#### ➤ Reporting on 9 objectives to be achieved for the Great Lakes

This indicator provides an overview of reporting efforts on the status of the Great Lakes in relation to the 9 objectives outlined in the Canada-U.S. [Great Lakes Water Quality Agreement](#). The 9 objectives relate to clean drinking water; good swimming and other recreational uses; consumption of fish and wildlife; pollutants in quantities or concentrations that could be harmful to human health, wildlife, or aquatic organisms; productive wetlands and other habitats; excess nutrients that promote growth of algae and cyanobacteria; introduction and spread of aquatic and terrestrial invasive species; harmful impacts of contaminated groundwater; and other conditions that may negatively impact the waters of the Great Lakes. The Agreement, first signed in 1972, has been amended several times to address ongoing and emerging environmental issues. The 2012 Agreement outlines [9 general objectives](#) to collaborate towards, which are the basis for this target. Canada and the United States report on the health of the Great Lakes in relation to the 9 objectives every 3 years through State of the Great Lakes reporting.

**By 2027, action plans are in place to advance restoration and protection of major lakes and rivers in Canada (Minister of Environment and Climate Change)**

**➤ Number of action plans to advance restoration and protection of major lakes and rivers**

This indicator tracks the number of action plans in place to advance restoration and protection of major lakes and rivers in Canada—specifically, the Great Lakes, Lake Winnipeg, Lake of the Woods, St. Lawrence River, Fraser River, Mackenzie River, the Wolastoq/St. John River and Lake Simcoe. As of January 2022, 3 action plans were in place.

**By March 2030, 85% of wastewater systems on reserve achieve effluent quality standards (Minister of Indigenous Services)**

**➤ Percentage of wastewater systems on reserve where effluent quality standards are achieved**

This indicator is based on wastewater systems subject to the [Wastewater Systems Effluent Regulations](#) or an equivalency agreement. Indicator under development. No baseline data is available.

**By December 2040, 100% of wastewater systems achieve effluent quality standards (Minister of Environment and Climate Change)**

**➤ Percentage of wastewater systems where effluent quality standards are achieved**

This indicator is based on wastewater systems subject to the *Wastewater Systems Effluent Regulations* or an equivalency agreement. Indicator under development. No baseline data is currently available.

**Implementation strategy**

**◆ Develop knowledge of water-related sustainability in Canada**

Take action to build knowledge and scientific understanding of freshwater resources, including lakes and rivers, aquifers and groundwater, as well as water usage, consumption, and the monitoring of evaporation rates to increase sustainability in Canada.

**◆ Develop knowledge to better understand the St. Lawrence River ecosystem**

Develop acquired knowledge to better understand the St. Lawrence River ecosystem, in support of domestic priorities and bilateral agreements. Conduct research and projects to better understand the ecosystem, monitor its health, and provide information to support stakeholder decision making.

**◆ Implement the *Wastewater Systems Effluent Regulations***

Implement the *Wastewater Systems Effluent Regulations* mandatory minimum effluent quality standards through secondary wastewater treatment and other federal activities.

**◆ Implement water quality and ecosystem partnerships programs**

Take action to improve water quality by, among other activities, reducing nutrient loading to lakes and basins in Canada, such as Lake Erie and Lake Winnipeg, restoring degraded environments in Canadian Great Lakes Areas of Concern and in other transboundary watersheds, and better understanding the impacts of climate change and other stressors to inform priority setting and decision making.

**◆ Work with partners on drinking water quality**

Work with provinces and territories to develop the Guidelines for Canadian Drinking Water Quality.

## Short-term milestones

### ■ Create a new Canada Water Agency

By the end of 2023, create a new Canada Water Agency to work together with the provinces, territories, Indigenous communities, local authorities, scientists and others to find the best ways to keep our water safe, clean and well-managed.

### ■ Complete approved water and wastewater projects

By March 31, 2026, over 90% of the 834 water and wastewater projects approved, but not yet completed, under the Investing in Canada Infrastructure Program will be complete.

### ■ Renew the Freshwater Action Plan

By the end of 2022, develop further protections and take active steps to restore large lakes and river systems, including the Great Lakes-St. Lawrence River System, Lake Simcoe, the Lake Winnipeg Basin, the Fraser River Basin, and the Mackenzie River Basin.

### ■ Reduce risk to public water systems and public wastewater systems on reserve

By March 31, 2026, achieve low risk ratings for 68% of public water systems from a baseline of 57% in 2019 to 2020 and 68% of public wastewater systems on reserve from a baseline of 48% in 2019 to 2020.

### ■ Publish the State of the St. Lawrence River report

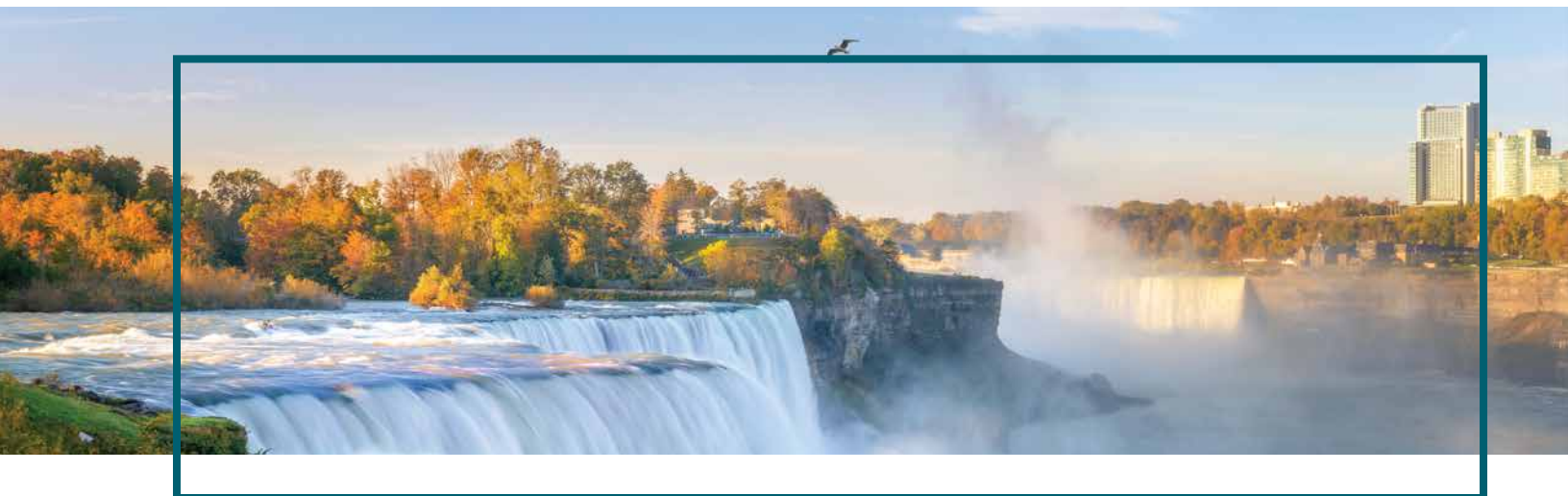
By 2024, publish the 2024 State of the St-Lawrence River Monitoring program.

### ■ Publish the Great Lakes Progress Report of the Parties

By 2025, publish the Great Lakes Progress Report of the Parties.

### ■ Publish the State of the Great Lakes report

By 2025, publish the State of the Great Lakes report.



## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 6.

### ☉ **Drinking water advisories**

This indicator shows a long-term view of why boil water advisories are issued. They also show the relationship between community size and the frequency of boil water advisories. In 2019:

- 2% of boil water advisories were due to the detection of *Escherichia coli* (E. coli)
- 11% were due to other microbiological water quality parameters
- the remaining 87% were due to equipment and process-related problems

### ☉ **Metal and diamond mining effluent quality**

This indicator helps to evaluate the degree of compliance with the *Metal and Diamond Mining Effluent Regulations* and the effectiveness of pollution prevention and control technologies, practices, and programs in the metal and diamond mining sectors. Between 2003 and 2018, for reported results:

- fish toxicity test results varied up to 2017 to reach 98.6% compliance and then declined to 91.6% compliance in 2018
- the percentage of mining operations meeting regulatory standards for total suspended solids increased from 92.1% to 97.8%
- test results for all other deleterious substances and pH levels ranged from 97.7% to 100% compliance

### ☉ **Pulp and paper effluent quality**

This indicator shows the results achieved under the *Pulp and Paper Effluent Regulations* since 1985. Between 1985 and 2019, the quality of pulp and paper effluent released directly to the environment improved.

- Tests for toxicity met regulatory standards 25% of the time in 1985 and 97.8% of the time in 2019.
- Tests for biochemical oxygen demand and total suspended solids met regulatory standards 68% and 60% of the time, respectively, in 1985. Both tests met the standards 99.9% of the time in 2019.

### ☉ **Water quality in Canadian rivers**

This indicator provides a measure of the ability of river water across Canada to support plants and animals. For the 2017 to 2019 period, water quality in rivers in Canada was rated fair to excellent at 82% of the monitored sites.

### ☉ **Water quantity in Canadian rivers**

This indicator provides information about water flows in Canada. From 2001 to 2017, most Canadian rivers had normal water quantity.

### ☉ **Sustainable water use indicator in development (Environment and Climate Change Canada)**

This indicator will combine 2 Canadian Environmental Sustainability program indicators: residential water use and water withdrawal and consumption by sector.





## CHAPTER 7

# INCREASE CANADIANS' ACCESS TO CLEAN ENERGY

Federal Environmental Perspective on SDG 7

## The Environmental Perspective

This chapter's focus on increasing Canadian's access to clean energy supports [SDG Global Indicator Framework](#) targets 7.1: By 2030, ensure universal access to affordable, reliable and modern energy services; 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix; and 7.3: By 2030, double the global rate of improvement in energy efficiency.

Access to affordable and reliable energy is essential to eradicating poverty, a crucial enabler of economic growth and improved living standards, and a cornerstone of modern lifestyles. At the same time, energy production and use is currently the dominant contributor to climate change, accounting for around 78% of total global greenhouse

gas emissions. In Canada, as in the rest of the world, greenhouse gas emissions primarily come from activities such as non-renewable electricity production, oil and gas production, transportation, and heating and cooling of buildings using fossil fuels. Clean and affordable energy is essential to Canada's and the world's aspirations to decarbonize the economy and achieve net zero greenhouse gas emissions. There are 3 key pathways to decarbonize how we use energy: efficiency, electrification, and clean fuels.

Canada reduced its [energy consumption](#) per dollar of economic activity by approximately 31% from 1990 to 2017 but remains one of the world's largest per-capita consumers of energy and approximately 81% of its greenhouse gas emissions come from energy production and use. Canadians use more energy per capita due to the country's extreme temperatures, vast landscape and dispersed population. Energy efficiency has an important role in meeting Canada's emissions reduction targets, while also helping individual Canadians and businesses save money on energy costs, improving competitiveness, and creating jobs.

Canadians have access to some of the world's cleanest electricity. In 2019, 82% of electricity generated in Canada came from non-greenhouse-gas-emitting sources, including 67% from renewables and 15% from nuclear. However, remote and northern communities are not afforded equal access to reliable sources of clean energy and typically rely on diesel fuel for electricity and heat. Increasing access to reliable and affordable clean energy is vital for enhancing the economic development and well-being of remote and northern communities, and for meeting the Government of Canada's climate change targets.

Electrification provides a foundation for decarbonization strategies such as electrifying transportation, heating and cooling of buildings, and certain industrial applications. It also underpins digitization, smart technology, and the internet of things, all of which play a critical role in managing energy and increasing demand.

Clean fuels produce fewer greenhouse gas emissions than traditional fuels. Growing Canada's clean fuels market will help reduce our carbon footprint by cutting emissions from hard-to-abate sectors. Canada is rich in a variety of feedstocks that can be used to make clean fuels like hydrogen, cellulosic ethanol, renewable natural gas, and sustainable aviation fuel. Even our abundant fossil fuel resources can be converted to clean hydrogen when coupled with carbon capture and storage technologies. These fuels can be used to power our transportation and industrial sectors, supporting Canada's energy sector transition to a net-zero economy.





## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 7 are listed below.

- Work on the development of model building codes, including publishing a net-zero emissions building code and model retrofit code by the end of 2024 that align with national climate objectives and provide a standard for climate-resilient buildings (Minister of Natural Resources; Minister of Innovation, Science and Industry).
- Expand the eligibility requirements of the deep home retrofit loan program to include more climate resilience measures, while also ensuring the program remains accessible to both individual homeowners and multi-unit residential buildings (Minister of Housing and Diversity and Inclusion).
- In support of Canada's efforts to achieve a net-zero electricity grid by 2035, advance near-term consultations with provinces, territories, Indigenous communities and interested parties to develop and implement strategies to decarbonize electricity systems (Minister of Natural Resources; with support from the Minister of Intergovernmental Affairs, Infrastructure and Communities).
  - Work to connect regions with carbon intensive electricity systems to more clean power by supporting transmission lines and the integration of renewables and clean fuels (Minister of Natural Resources; with support from the Minister of Intergovernmental Affairs, Infrastructure and Communities).
- Provide grants of up to \$5,000 for home retrofits through the Canada Greener Homes Grants Program and creating a Climate Adaptation Home Rating Program as a companion to the EnerGuide home energy audits (Minister of Natural Resources).
- Advance the Atlantic Loop initiative to connect surplus clean power to regions transitioning away from coal and to help transform how we power our economy and communities (Minister of Intergovernmental Affairs, Infrastructure and Communities; Minister of Environment and Climate Change; Minister of Natural Resources; Minister of Official Languages and Minister responsible for the Atlantic Canada Opportunities Agency).

## How the Government of Canada Contributes

The Government of Canada is committed to working with partners to develop and implement strategies to decarbonize regional electricity systems, grow the market for clean fuels and transform Canada's building stock for the climate era.

Canada's strengthened climate plan, [A Healthy Environment and a Healthy Economy](#), as well as the 2030 Emissions Reduction Plan, build on the Pan-Canadian Framework on Clean Growth and Climate Change. It is the federal plan to build a better future with a healthier economy and environment, helping to make life more affordable for households, make Canadian communities more livable, and ensure a focus on workers and their careers in a stronger and cleaner economy. Through the plan, Canada is expanding the supply of clean electricity through investments in renewable and next generation clean energy and technology; provide incentives to make clean energy and technology more affordable and improve the energy efficiency of Canadian homes and buildings; incent the uptake of technologies that reduce the carbon intensity of liquid fuels and invest in clean fuels production; and support the transition of Indigenous and northern communities to clean, renewable and reliable energy.

The [Investing in Canada Infrastructure Program](#) supports energy security in communities in the North, including Indigenous communities, by investing in upgrades to existing fossil-fuel-based energy systems, as well as supplementing or replacing these systems with renewable energy options, improving energy reliability and efficiency and reducing pollution. It also supports projects that increase capacity to manage more renewable energy, improve access to clean energy transportation, increase the energy efficiency of buildings, and improve the production of clean energy.

The Government of Canada collaborated with stakeholders including industry, other levels of government, Indigenous organizations, non-government organizations and academia to develop the [Hydrogen Strategy for Canada](#), a call to action to position Canada to seize environmental and economic opportunities that exist across the country. The government is now working on an implementation plan with stakeholders. The [Clean Fuels Fund](#), a \$1.5 billion investment in the clean fuels sector, is one of many federal initiatives supporting this strategy.

Canada is also working to enhance energy security and efficiency and to accelerate the pace of the clean and inclusive energy transition around the world. As a founding member of the International Energy Agency (IEA), Canada actively supports the development of net-zero roadmaps—tracking progress, enhancing its assistance to priority countries, leveraging its expertise through data, supporting modelling and analysis, and providing policy advice to IEA member governments and key emitters. Recognizing the importance of an inclusive and equitable clean transition, Canada is a strong advocate of a people-centred approach and was an active member of the IEA's Global Commission on People-Centred Clean Energy Transitions.

Canada is a member of the [Clean Energy Ministerial](#), which brings together 29 countries and the European Union to accelerate progress on energy efficiency, clean energy supply and clean energy access. Canada also advances its clean energy agenda through the [Group of Seven \(G7\)](#) and [Group of Twenty \(G20\)](#).

[The Powering Past Coal Alliance](#), co-founded and co-chaired by Canada and the UK, is the world's leading initiative seeking to accelerate clean growth and climate protection through the rapid phase-out of unabated coal power. As of November 2021, the alliance has over 165 members, including national governments, sub-national governments and organizations. It is committed to just transition and an economically-inclusive phase-out of coal through its Just Transition Taskforce. Domestically, Canada has committed to phasing out traditional coal-fired electricity by 2030 and with new regulations in place, will end exports of thermal coal by 2030.

At the 26<sup>th</sup> Conference of the Parties (COP26) climate summit in November 2021, the Prime Minister announced up to \$1 billion for the Climate Investment Funds Accelerated Coal Transition Investment Program through Canada's international climate finance contribution. This investment will help developing countries transition from coal-fired electricity to clean power as quickly as possible. Also at COP26, Canada, together with 39 other countries, development institutions, and multilateral development banks, committed to end new direct public support for the international unabated fossil fuel energy sector by the end of 2022 and prioritize spending on clean energy.



Canada is a founding member of Mission Innovation, an initiative among 23 governments launched in 2015 to enhance collaboration and catalyze action and investment in research, development and demonstration to make clean energy affordable, attractive and accessible for all. Mission Innovation 2.0 was launched in June 2021 and Canada continues to play a leadership role, notably by co-leading the Carbon Dioxide Removal Mission, and participating in the Green Power and Clean Hydrogen Missions.

Finally, Canada is a member of the [International Renewable Energy Agency](#), an intergovernmental organization with more than 160 member countries dedicated to producing energy from clean, sustainable energy sources. Canada recently contributed to the launch of a Multi-stakeholder Platform for Transitioning Remote Communities to Renewable Energy, which will serve as a global communication platform on the topic of energy transitions for remote communities.

## ACCESS TO ENERGY IN INDIGENOUS AND NORTHERN COMMUNITIES

About 200 communities across Canada rely completely on diesel fuel for heat and power. The vast majority are Indigenous or have significant Indigenous populations. Remote communities consume more than 680 million litres of diesel per year and close to two thirds of this is used for heat, as many remote communities are located in harsh environments. Diesel reliance has negative consequences for these communities as it is costly, inefficient, and contributes to local pollution. It can also create ripple effects that deeply impact these communities' socioeconomic development.

Many Indigenous communities view access to energy as a key aspect of reconciliation and energy sovereignty. In response, the Government of Canada is investing in several clean energy projects in Indigenous communities. For example, the Fort Chipewyan Solar Project has received \$4.5 million toward building a 2.2-megawatt solar energy and energy storage project in northern Alberta. The project, Canada's largest off-grid solar project, is owned by 3 neighbouring Indigenous groups in Fort Chipewyan. It will produce 20% of the community's electricity, displacing 650,000 litres of diesel fuel per year and reducing greenhouse gas emissions by 1,743 tonnes annually.



# RENEWABLE AND NON-EMITTING SOURCES OF ELECTRICITY

## Targets and indicators

**By 2030, 90%, and in the long term 100% of Canada's electricity is generated from renewable and non-emitting sources (Minister of Natural Resources)**

### ➤ **Proportion of electricity generated from renewable and non-greenhouse gas-emitting sources**

This [indicator](#) tracks electricity generation from renewable sources, such as solar, tidal, biomass, wind, and hydroelectricity, as well as from non-emitting sources such as nuclear energy. Between 2016 and 2019, the share of electricity produced from renewable and non-emitting sources increased by 1% to reach 82% of the total electricity produced in Canada. This share combines 67% from renewable and 15% from nuclear sources.

**Consult on the development of a Clean Electricity Standard to achieve a net-zero clean electricity grid by 2035 and achieve a 100% net-zero emitting electricity future (Minister of Environment and Climate Change)**

### ➤ **Indicator under development**

## Implementation strategy

### ◆ **Implement and enforce regulations and legislation**

Develop, implement and enforce regulatory measures that keep energy moving safely and efficiently to protect people, the environment, energy markets and the economy.

### ◆ **Invest in research, development and demonstration of clean energy technologies**

Invest in research, development and demonstration of clean technologies for energy generation, storage and distribution.

### ◆ **Play a leading role to promote clean and renewable energy**

Continue to play a leadership role in international agreements on clean and renewable energy policies, innovation and program design, and in international organizations focused on clean and renewable energy.

### ◆ **Support renewable energy deployment**

Invest in renewable energy (for example, hydro, solar, tidal, wind and geothermal), grid modernization, and regional transmission projects to replace greenhouse-gas-emitting energy sources.

### ◆ **Support voluntary action to adopt clean energy technologies**

Encourage businesses to adopt clean energy technologies to reduce greenhouse gas and air pollutant emissions through the accelerated capital cost allowance for clean energy and energy conservation equipment.

### ◆ **Work with partners on clean and renewable energy**

Work with other governments, the private sector and Indigenous peoples to advance the development and deployment of clean and renewable energy.

## Short-term milestones

### ■ Develop regulations on offshore renewable energy

By 2024, develop environmental protection and safety regulations for offshore renewable energy projects with the [Offshore Renewable Energy Regulations initiative](#).

### ■ Demonstrate and deploy the next generation of smart grids

By 2023, complete 22 projects that demonstrate the next generation of smart grid technologies and/or deploy smart grid integrated systems.

### ■ Install renewable energy in Indigenous and northern communities

By 2026, install up to 40 megawatts of renewable energy in rural and remote communities and off-grid industrial sites.

### ■ Provide access to efficient sources of electricity

By March 31, 2026, 11 communities will have access to more efficient sources of electricity as a result of infrastructure investments under Infrastructure Canada's Arctic Energy Fund.

### ■ Support smart renewables

By 2026, support 1,000 megawatts of new renewable energy projects, capable of providing essential grid services.

## ENERGY EFFICIENCY

### Target and indicator

**By 2030, 600 petajoules of total annual energy savings will be achieved as a result of adoption of energy efficiency codes, standards and practices from a baseline savings of 20.0 petajoules in 2017 to 2018 (Minister of Natural Resources)**

### ➤ Total annual energy savings resulting from adoption of energy efficiency codes, standards and practices

This indicator tracks annual energy savings resulting from adopting energy efficiency codes, standards and practices. By the end of fiscal year 2020 to 2021, by adopting energy efficiency codes, standards, and practices, Canada had achieved total annual energy savings of 66.73 petajoules.

### Implementation strategy

#### ◆ Develop and implement energy efficiency codes and regulations

Work with provinces and territories to develop and adopt more ambitious model building codes, and develop, implement, and enforce energy efficiency regulations in Canada to incrementally improve energy efficiency and standardization across industries, homes, businesses and products in Canada.

#### ◆ Invest in research, development and demonstration of energy efficiency technologies

Invest in research, development and demonstration of energy efficiency technologies to overcome barriers to large-scale adoption and unlock solutions to complex and persistent problems.

◆ **Support deployment of energy efficiency technologies and practices**

Invest in large-scale deployment of energy-efficient technologies and practices—for example, through building retrofits.

◆ **Support voluntary action**

Encourage businesses and organizations to adopt energy efficiency technologies and practices.

◆ **Work with domestic and international partners on energy efficiency**

Work with provinces, territories, municipalities, Indigenous peoples, utilities, industry, and non-profit organizations to increase energy efficiency in Canada, and continue to play a leadership role in international agreements and initiatives involving energy efficiency.

### Short-term milestones

■ **Demonstrate energy-efficient and net-zero energy building technologies**

By 2026, support at least 12 projects demonstrating energy-efficient and net-zero energy building technologies.

■ **Promote ENERGY STAR Portfolio Manager**

By 2026, ENERGY STAR performance scores are available for 21 building types, and 480 million square metres of commercial and institutional building floor space is captured in the ENERGY STAR Portfolio Manager benchmarking tool.

■ **Publish energy efficiency regulations**

By 2023, publish the next amendment to the *Energy Efficiency Regulations* in the Canada Gazette, Part II to reduce energy consumption and support the Government of Canada's climate change objectives and commitment to address unnecessary regulatory differences within Canada and North America.

■ **Support greener homes**

By March 2024, homeowners complete 450,000 pre-retrofit EnerGuide evaluations under the Canada Greener Homes Grant initiative.





# CLEAN FUELS

## Target and indicator

**By 2030, grow the production and use of clean fuels while continually reducing life-cycle carbon intensity over the long term (Minister of Natural Resources)**

### ➤ **The proportion of Canada's energy demand met by clean fuels and the carbon intensity of those fuels**

This indicator will track clean fuels production, use and export. Clean fuels met 6% of Canada's energy demand in 2020. The *Clean Fuels Regulations* will set out an increasingly stringent standard for carbon intensity of liquid fuels.

## Implementation strategy

### ◆ **Apply clean fuel regulations**

Implement a modern and robust regulatory framework to drive down the life-cycle carbon intensity of fuels over time to reduce emissions and accelerate the use of clean fuels.

### ◆ **Deliver the Clean Fuels Fund**

Invest \$1.5 billion to de-risk the capital investment required to build new or expand existing clean fuel production facilities, establish sustainable biomass supply chains, and address gaps and misalignment in codes, standards and regulations related to the production, distribution and use of clean fuels.

### ◆ **Develop and update codes and standards**

Work with domestic and international partners to ensure needed codes and standards are in place to support the safe and efficient use of clean fuels.

### ◆ **Invest in research, development and demonstration of clean fuels**

Invest in research, development and demonstration of cleaner fuels pathways to decarbonize the sectors and sources of emissions that are more challenging and less cost-effective to electrify.

### ◆ **Work with stakeholders to advance the Hydrogen Strategy for Canada**

Work with stakeholders to position Canada as a supplier of choice to the world for clean hydrogen and the technologies that use it by advancing the Hydrogen Strategy for Canada, including implementing measures that align with it, such as the Clean Fuels Fund.

## Short-term milestones

### ■ **Develop clean fuel production facilities**

By 2026, at least 10 hydrogen facilities, and up to 8 other clean fuel facilities, will be commissioned across the country.

### ■ **Develop codes, standards and regulations**

By 2026, develop at least 24 new or revised codes and standards in collaboration with industry, provinces and territories, as well as international entities, ensuring alignment and harmonization where possible.

### ■ **Support biomass supply chains**

By 2026, Canada will have at least 7 sustainable biomass supply chains across the country, complementing growth in new clean fuel production.

## BEYOND THE TARGETS

The indicator below provides additional context for targets and other commitments supporting Sustainable Development Goal 7.

### ◎ **Number of projects funded to support First Nation, Inuit and the Métis Nation's capacity and readiness**

This indicator is to capture new programming under the Strategic Partnerships Initiative from 2021 to 2024. It will help to build capacity for local, economically sustainable clean energy projects in First Nations, Inuit, and the Métis Nation's communities and support economic development opportunities. As this is a new indicator, no current data is available.



## CHAPTER 8

# ENCOURAGE INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH IN CANADA

## Federal Environmental Perspective on SDG 8

### The Environmental Perspective

This chapter's focus on encouraging inclusive and sustainable economic growth in Canada directly supports [SDG Global Indicator Framework](#) Target 8.3: Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.

Canada's environmental and clean technology sector accounts for 3% of gross domestic product (GDP) and nearly 2% of jobs in Canada. It includes diverse occupations in sub-industries such as clean electricity, solar panel research, nature conservation, and waste management. Jobs in this sector are well-paid, with annual salaries about 33% higher than the average Canadian wage. At 3.5% GDP growth, Canada's clean technology sector grew twice as fast as the overall economy from 2018 to 2019. Canada ranked first in the G20 for clean technology innovation in the most recent Global Cleantech Innovation Index (2017), and fourth overall, while 11 Canadian companies are highlighted on the [2021 Global Cleantech Top 100 List](#).

Compared to other sectors, small and medium-sized enterprises in the clean technology sector are more likely to apply and be accepted for financing opportunities and export beyond their province and internationally. Meanwhile, [occupations in nature conservation](#) span many industries, signalling growth; however, retention strategies remain a priority to maintain this growth.

There is opportunity across all sectors for businesses to increase their competitiveness and become more sustainable. To transform the economy, Canada will need to decarbonize and reduce the environmental impacts of existing sectors while growing and supporting clean technology and emerging sector jobs.

To succeed in the new clean economy, Canada will also need to respond to evolving workforce needs by upskilling and reskilling workers, increasing workforce participation, and diversifying local economies. If governments, industry, and labour fail to plan ahead for the changing skills and occupational requirements needed for the clean economy, they risk running into skills gaps and labor shortages. This will stall progress on both economic growth and climate change mitigation.

At the same time, the transition toward clean energy sources and clean technology poses risks of disruption, especially for workers with fewer marketable skills. The shift to a clean economy needs to be pursued in a just and inclusive manner, so that no one is left behind. This requires collaboration among governments, industry and organized labor to provide affected workers and communities with new opportunities for training, skills development and well-paid employment.





## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 8 are listed below.

- To support the future and livelihood of workers and their communities in the transition to a net-zero economy:
  - Move forward with legislation and comprehensive action to achieve a Just Transition. This work will be guided by consultations with workers, unions, Indigenous peoples, employers, communities, and provinces and territories (Minister of Natural Resources; Minister of Labour; supported by the Minister of Employment, Workforce Development and Disability Inclusion);
  - Launch a Clean Jobs Training Centre to help workers across sectors upgrade or gain new skills so as to be on the leading edge of the zero carbon industry (Minister of Employment, Workforce Development and Disability Inclusion);
  - Redesign and implement the Canada Training Benefit (Minister of Employment, Workforce Development and Disability Inclusion);
  - Address gaps in training and upskilling to ensure that all Canadian workers can take advantage of sustainable battery industry opportunities (Minister of Employment, Workforce Development and Disability Inclusion);
  - Continue to deliver on investments to train workers and create opportunities for green jobs (Minister of Natural Resources); and
  - Increase inclusion in the clean energy workforce by creating more opportunities for women, LGBTQ2 and other under-represented people in the energy sector (Minister of Natural Resources).
- To ensure that Canada is a world leader in clean technology:
  - Build on existing advisory services to guide emerging clean technology firms from formation to export (Minister of Innovation, Science and Industry);
  - Help to drive the development of Canadian clean technology companies and small and medium-sized enterprises working in the area of decarbonization (Minister of Innovation, Science and Industry; supported by the Minister of International Trade, Export Promotion, Small Business and Economic Development);
  - Support procurement of Canadian clean technology (Minister of Innovation, Science and Industry; Minister of Public Services and Procurement); and
  - Partner with post-secondary institutions and Indigenous organizations to accelerate the creation and growth of Indigenous clean technology businesses (Minister of Innovation, Science and Industry).

## How the Government of Canada Contributes

The Government of Canada is taking action to promote decent work and well-paid jobs by growing the clean technology sector, promoting skills development and training, and diversifying local economies. The government is committed to sustainability across the economy, including a just transition for workers and communities impacted by the shift away from fossil fuels, so that the benefits of a clean economy can be enjoyed by all Canadians.

In addition to advancing these priorities domestically, the federal government promotes decent work and just transitions through participation in multilateral institutions such as the Group of Seven (G7), the Group of Twenty (G20), and intergovernmental organizations such as the International Labor Organization.

The [Innovation and Skills Plan](#) helps support workers and businesses in the clean technology market. It has 3 main pillars: equipping workers with the tools, skills and experience they need to succeed; fostering a nation of innovators through financial assistance and improved innovation programs; and promoting key sectors in Canada's innovation economy such as clean technology, digital industries and agri-food. It also encourages investment in research and supports businesses capitalizing on Canadian inventions.

## JUST TRANSITION

At COP26, Canada was a signatory to the [Declaration Supporting the Conditions for a Just Transition Internationally - Green growth, decent work, and economic prosperity in the transition to net zero](#). That includes the following commitment:

"Support and promote social dialogue and stakeholder engagement: We recognise that the development of effective, nationally coherent, locally driven and delivered just transition plans within countries are dependent on effective and inclusive social dialogue. We intend to support and promote social dialogue between governments and the representative organisations of workers and employers, including those in secondary industries that are dependent on carbon-intensive industries as well as other stakeholders, in accordance with inter alia the relevant fundamental rights at work. We also recognise that other key stakeholders need to be engaged to ensure no one is left behind. This support may include strengthening social dialogue through capacity building of the participants."

Also, in support of Just Transition, in 2018, the government established the Task Force on Just Transition for Canadian Coal Power Workers and Communities. Its mandate was to engage relevant stakeholder groups including labour, provinces and municipal governments, report what was heard and provide recommendations on how the government can support coal power workers and communities. Drawing from meetings and site visits with affected communities, organized labour, industry, and other stakeholders, the task force released its [final report in March 2019](#).

In response, the government committed \$185 million to support affected communities, including \$35 million for the [Canada Coal Transition Initiative](#) focused on skills development and economic diversification, as well as \$150 million for a dedicated infrastructure fund.

As of December 2021, about \$52 million had been invested in [53 projects across New Brunswick, Nova Scotia, Saskatchewan and Alberta](#).

In July 2021, Canada also launched public consultations to develop just transition legislation that could inform government decision making on climate action and establish an advisory body to advise the government on regional and sectoral strategies. Natural Resources Canada is consulting with a broad range of stakeholders including workers and labour organizations, industry, academia, non-governmental organizations, youth, and experts in skills, training, and diversity and inclusion. These virtual consultations are in addition to meetings with provinces, territories and Indigenous organizations.

The [Clean Growth Hub](#) is a whole-of-government focal point for clean technology focused on supporting companies and projects, coordinating programs and tracking results. It helps clean technology developers and adopters identify the federal programs and services most relevant to their needs, simplifying access to government programs and reducing duplication of effort. Services are available to firms of all sizes in the clean technology space and across all sectors of the economy.

The Sectoral Workforce Solutions Program will support key sectors, including those linked to the clean economy. The program funds sectoral projects that focus on a range of industry-driven activities such as training and reskilling workers and helping employers retain and attract a skilled and diverse workforce. This will help connect Canadians with the training they need to access good jobs in sectors where employers are looking for skilled workers. It will also place priority on supporting equity-deserving groups and promoting a diverse and inclusive workforce.

The Community Workforce Development Program was announced in Budget 2021. It provides \$55 million over 3 years, starting in 2021 to 2022, to help communities recover and improve resiliency through workforce planning and skills training. It will test innovative community-based approaches that aim to address regional and national priorities such as decarbonization. It will also help to strengthen local economic diversification efforts with a focus on addressing the needs of underrepresented groups.

In November 2020, the Future Skills Council, an advisory body to the Minister of Employment, Workforce Development and Disability Inclusion, released a report entitled *Canada – A Learning Nation*. The report identified skills development for sustainable futures as a priority area for action. Informed by priorities identified by the council, the Future Skills Centre is working to identify effective practices to support employers and workers in assessing and developing skills to support a greener economy.

The Skills for Success Program will provide training to 90,000 Canadians by 2024 and help them get back to work. Part of the Government of Canada's commitment to create 500,000 new training and work opportunities, the program centres on providing training, tools and resources to help Canadians adapt and thrive in learning, work and life. In particular, it will help vulnerable populations with skill challenges, such as persons with disabilities, Indigenous peoples and racialized Canadians, and will support the ability of workers to transition to jobs in the green economy.

Finally, Canada's 7 regional development agencies contribute to the transition to the green economy and sustainable jobs by supporting clean technology development and adoption, as well as the green transformation and adoption of small and medium-sized enterprises.

## STRENGTHENING CANADA'S CLIMATE TECH

"Climate tech," a subset of clean technology, includes a broad range of innovative technology-based solutions to decarbonize the economy and improve society's adaptation and resilience to climate change. This includes transitioning the energy supply to renewable sources; moving toward zero-emission transportation; reducing the impact of buildings and infrastructure; cultivating sustainable agriculture, forestry and land use; and decarbonizing industrial processes. The Government of Canada is committed to working with the private sector, provinces and territories to position Canada as a global leader in climate tech innovation through funding for climate tech start-ups, strengthening regulatory action, increasing clean tech deployment, and transforming public procurement to achieve positive social and environmental outcomes.

## GREEN JOBS IN INDIGENOUS AND NORTHERN COMMUNITIES

The percentage of jobs attributed to the environmental and clean technology products sector in Nunavut and the Northwest Territories (0.5% and 1% respectively) falls below the Canada-wide average of 2%. As the Government of Canada continues to support research and development into clean technologies and nature based solutions, it will be important to ensure the benefits reach across Canada.

The Government of Canada is helping Indigenous and northern communities access green job opportunities through the Indigenous Skills and Employment Training (ISET) Program and the Skills and Partnership Fund (SPF). The ISET Program is a distinctions-based program designed to help Indigenous people improve their skills and find employment. It provides funding to Indigenous service delivery organizations to build and improve their capacity and deliver culturally-appropriate job training services to First Nations, Inuit, Métis and urban/non affiliated Indigenous people in their communities. The SPF is a project-based program that supports government priorities through strategic partnerships with Indigenous groups and industry employers. It provides Indigenous peoples with demand-driven skills training for economic opportunities, including in the environmental sector, at the local, regional and national levels.

In addition, the [Strategic Partnerships Initiative](#) provides a way for federal partners to coordinate their efforts, reduce administrative burden and pool resources in support of Indigenous communities. It fills gaps in other funding programs that might create a barrier to Indigenous involvement in economic opportunities. As an example, an investment in the [Rat River Development Corporation](#) will support a feasibility study to look at adding a biomass boiler to the community's existing heating system.





# GREEN JOBS

## Targets and indicators

**Achieve 8% growth in jobs in the clean tech products sector by March 31, 2024 (Minister of Innovation, Science and Industry)**

### 📌 Jobs in the clean technology products sector

This indicator reflects the estimated employment growth of the clean technology sector. The target was established using a rolling mean average of employment growth for the 5 previous years. This represents 8% growth in the clean technology products sector from 212,917 workers employed in 2019.

**Between 2022 and 2026, 30% of all Sustainable Development Technology Canada's SD Tech Fund-supported technologies are commercialized annually (Minister of Innovation, Science and Industry)**

### 📌 Percentage of SD Tech Fund-supported technologies commercialized (revenue derived from project technology)

This indicator tracks the percentage of SD Tech Fund supported technologies commercialized (revenue derived from project technology). As of March 31, 2021, 32% of Sustainable Development Technology Canada's supported technologies have been commercialized. Commercialized projects represent those that have entered or were ready to enter the market, as of March 31 of the given fiscal year.

## Implementation strategy

### ◆ Develop our knowledge of clean technologies

Develop our understanding of the impact and benefits of clean technologies on the Canadian economy to ensure evidence-based policies and programs.

### ◆ Support workers, businesses and communities

Support workers, businesses and communities in their transition to a greener and more inclusive economy, including in impacted sectors such as the environmental and clean technology sector, through economic diversification, skills and training investments (where jurisdictions allow), and project development assistance.

## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 8.

### 🕒 **Environmental and clean technology sector compensation**

This indicator tracks the compensation provided to workers in the environmental and clean technology sector in Canada. Wages and salaries in this sector were typically higher than the average salary in the Canadian economy, reaching \$75,816 in 2019, compared with the national average of just over \$56,783.

### 🕒 **Environmental and clean technology sector GDP**

The GDP generated by the environmental and clean technology products sector grew 3.5% from 2018 to 2019—twice the pace in real (volume) terms compared with the total Canadian economy. In nominal terms, the value of the environmental and clean technology products sector in Canada reached \$70.5 billion in 2019, accounting for 3% of Canadian GDP.

### 🕒 **Sustainable business practices**

This indicator tracks the share of establishments investing in environmental protection activities or management practices. Environmental management practices are protocols that businesses adopt to reduce their impact on the environment. In 2018, 41% of businesses had at least one environmental management practice. Using an environmental management system was the most common practice (reported by 22% of businesses), followed by developing or following a pollution prevention plan (20%) and performing a greenhouse gas emissions inventory (13%).

### 🕒 **Value of investments leveraged in clean technologies**

This indicator tracks the value of additional investments that clean technology innovation projects receive as a result of funding from Sustainable Development Technology Canada. As of March 31, 2019, Sustainable Development Technology Canada had achieved a co-investment ratio of \$2.60 per \$1.00 invested.



## CHAPTER 9

# FOSTER INNOVATION AND GREEN INFRASTRUCTURE IN CANADA

Federal Environmental Perspective on SDG 9

## The Environmental Perspective

This chapter's focus on fostering innovation and green infrastructure in Canada directly supports several [SDG Global Indicator Framework](#) targets including 9.1: Develop quality, reliable, sustainable and resilient infrastructure; 9.2: Promote inclusive and sustainable industrialization; and 9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes.

Canada's industrial sector is a major driver of economic activity, including income, jobs and exports. It is also a significant source of greenhouse gas emissions due to industrial processes and energy consumption. In 2019, heavy industry, such as smelting and refining, and the production and processing of industrial goods such as fertilizer, paper and cement, accounted for 11% of Canada's total emissions. However, many sectors in Canada are taking action to green their industries. For example, between 2008 and 2019, Canada's aviation industry improved its fuel efficiency by 17.8% by taking actions such as pre-heating and pre-cooling aircrafts or introducing sustainable fuels. Canadian ports are also taking a variety of actions to reduce emissions in their operations, including investing in green infrastructure that allows ships to plug into shore-power and pursuing the creation of green shipping corridors.

Some of Canada's infrastructure is [aging and at risk](#). [Investing in green infrastructure](#), such as low-carbon transportation, climate-resilient buildings and clean energy, helps build healthy and resilient communities, protects against a changing climate, promotes environmental sustainability and drives economic growth.

As climate change continues, green infrastructure will be increasingly important to sustain economic, environmental and social well-being. For instance, a growing network of electric vehicle chargers and natural gas and hydrogen refueling stations will make low-carbon transportation options more accessible to Canadians. At the same time, natural infrastructure such as wetlands and marshes can help prevent climate change impacts like flash floods and support the conservation and recovery of wild species, including species at risk.

Meanwhile, investing in innovation supports Canada's transition to a net-zero economy while increasing our competitiveness. Innovation can have benefits in areas such as water, air quality, plastic waste and biodiversity, including through increased adoption of clean energy technology, increased resource efficiency and increased demand for low-carbon materials. Research, development and demonstration continues to be needed to develop new technologies and integrate them into existing systems, and to lower capital costs of solutions nearing commercial scale. Sustained innovation over the next decade and beyond will be critical to reduce the costs of technologies and processes that could enable substantial emissions cuts beyond 2030 and support future economic competitiveness.



## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 9 are listed below.

- Implement the Net Zero Accelerator Initiative to support the strategic review of large-scale investments in order to drive industrial transition, significant reductions in greenhouse gas emissions and meaningfully transform Canadian industry (Minister of Innovation, Science and Industry; supported by the Minister of Environment and Climate Change and the Minister of Natural Resources).
- Launch Canada's first National Infrastructure Assessment to help identify needs and priorities in the built environment and support long-term planning toward a net-zero emissions future (Minister of Intergovernmental Affairs, Infrastructure and Communities).
- Introduce a new Buy Clean Strategy to support and prioritize the use of made-in-Canada low-carbon products in Canadian infrastructure projects (Minister of Public Services and Procurement; Minister of Intergovernmental Affairs, Infrastructure and Communities; Minister of Natural Resources).
- Create open-access climate toolkits to help infrastructure owners and investors develop projects that contribute to Canada's path to net-zero emissions (Minister of Intergovernmental Affairs, Infrastructure and Communities).
- Continue advancing the Social Innovation and Social Finance strategy, including fully implementing the Social Finance Fund and launching the Social Innovation Advisory Council (Minister of Families, Children and Social Development).
- Establish a global centre for excellence on methane detection and elimination (Minister of Innovation, Science and Industry, with support from the Minister of Natural Resources).
- Reduce pollution from transportation by adding 50,000 new electric vehicle chargers and hydrogen stations to Canada's network and supporting the installation of charging stations in existing buildings, and by making investments to retrofit large trucks currently on the road, and supporting the production, distribution and use of clean fuels, including low or zero carbon hydrogen (Minister of Natural Resources).

## How the Government of Canada Contributes

The federal government owns just 2.8% of the country's infrastructure. However, it plays a major role in funding, regulating and setting policies and standards for infrastructure projects. In March 2021, the government launched consultations on Canada's first-ever [national infrastructure assessment](#). The assessment will identify needs and priorities in the built environment, and support long-term infrastructure planning. The Government of Canada is also supporting provinces, territories and municipalities with funding for green infrastructure initiatives.

## NATURAL INFRASTRUCTURE FUND

The Government of Canada is establishing a [Natural Infrastructure Fund](#) to support natural and hybrid infrastructure projects to further Canada's commitment to climate change resilience while contributing to national biodiversity goals and targets. This fund will help to improve well-being, mitigate the impacts of climate change, conserve natural landscape features, and prevent costly natural events.



The government has also launched the [Green and Inclusive Community Buildings](#) program, which aims to improve energy efficiency in existing buildings and support the construction of new net-zero ones, particularly in areas with populations with higher needs, while also making the buildings more resilient and higher-performing. This 5-year program will support green and accessible retrofits, repairs and upgrades of existing public community buildings and the construction of new publicly-accessible community buildings that serve high-needs, underserved communities across Canada.

### GREEN BONDS

As part of Budget 2021, the Government of Canada announced its plan to issue its first-ever green bond in 2021 to 2022. The inaugural green bond issuance will target \$5 billion, subject to market conditions, and will be the first of many issuances. Green bonds are a specific type of bond in which the proceeds are used exclusively to fund projects with environmental and climate benefits. These investments will be used for projects such as green infrastructure, clean tech innovations and nature conservation. Work underway to design Canada's green bond framework is being led by the Department of Finance Canada and Environment and Climate Change Canada, in cooperation with Natural Resources Canada; Infrastructure Canada; Innovation, Science and Economic Development Canada; Transport Canada; Agriculture and Agri-Food Canada; Public Safety Canada; and other related Crown corporations with the support of TD Securities and HSBC as structuring advisors.

Industrial emission reduction is essential for Canada to stay competitive in an increasingly low-carbon global economy. Innovation requires investment, partnership from all levels of government, and the ability to realize the full value of intellectual property. As an example, the [Strategic Innovation Fund's Net Zero Accelerator](#) is providing \$8 billion in support of projects targeting technology adoption or development in 3 priority areas: decarbonization of large emitters, shifting Canada's industrial base in sectors such as automotive and aerospace towards a low-carbon model, and development of clean technologies, including a battery ecosystem. Further, at the COP26 climate summit in 2021, Canada joined 22 countries to commit to advance ambitious actions to reduce international aviation emissions and joined 19 countries committed to establish zero-emission green shipping corridors.

Carbon capture, utilization and storage (CCUS) offers a suite of technologies and processes that remove or capture carbon dioxide from the air or from industrial emissions in key sectors (for example, heavy industry, electricity, oil and gas), then store it underground or turn it into products such as cement or low-carbon synthetic fuels. To advance this critical pathway in Canada's transition to a net-zero economy, Canada is supporting the development and deployment of CCUS technologies, including through research, development, and deployment funding support and laboratory research as well as the development of a CCUS Strategy and a CCUS Investment Tax Credit.

Sustainable Development Technology Canada helps Canadian companies develop and deploy clean technology innovations by delivering critical funding support and promoting the development of a robust Canadian market. Since its inception in 2001, Sustainable Development Technology Canada has committed approximately \$1.38 billion to almost 540 projects. The Strengthened Climate Plan included continued support to Sustainable Development Technology Canada with an additional \$750 million to support startups and to scale-up companies to enable pre-commercial clean technologies to successfully demonstrate feasibility as well as to support early commercialization efforts.

## **SUSTAINABLE FINANCE**

Sustainable finance refers to the incorporation of climate and environmental considerations throughout financial decision making. In turn, this enables the mobilization and alignment of private sector investments towards climate and environmental objectives. In May 2021, the Government of Canada launched the Sustainable Finance Action Council (SFAC) to help lead the Canadian financial sector towards integrating sustainable finance into standard industry practice. SFAC will make recommendations on critical market infrastructure, with an initial focus on climate-related financial disclosure, green and transition investment standards, and climate data for the financial sector.

In Budget 2021, the Government of Canada announced its intention to strengthen public climate-related disclosure practices to ensure a stable and predictable transition to a net-zero economy. The government will engage with provinces and territories with the objective of making climate disclosures consistent with the Task Force on Climate-related Financial Disclosures (TCFD), as part of regular disclosure practices for a broad spectrum of the Canadian economy.

Canada's Crown corporations will also demonstrate climate leadership by adopting the TCFD standards, or complying with more rigorous and acceptable standards as applicable to the public sector at time of disclosure, as an element of their corporate reporting. To ensure Crown corporations are transparent about issues that matter to Canadians, Budget 2021 announced that Crown corporations will be required to implement gender and diversity reporting beginning in 2022.

Recognizing the importance of nature, the Government of Canada has joined the Task Force on Nature-related Financial Disclosures, which will provide a similar framework to the TCFD, but with an aim to support corporate and financial institutions to assess, manage and report on their dependencies and impacts on nature.

## THAWING PERMAFROST IN CANADA'S ARCTIC COASTAL COMMUNITIES

Warming caused by climate change will have a disproportionate impact on infrastructure in Canada's [Arctic coastal communities](#) due to the thawing of permafrost. Permafrost is a layer of earth beneath the surface that remains frozen for more than 2 consecutive years. As permafrost thaws, it can cause the surface to shift and destabilize. This in turn causes the foundation of buildings and other forms of infrastructure such as roads and airports to sink and crack, impacts water flow and absorption, and leaves shorelines more susceptible to erosion from wave activity. In regions such as Nunavut, where infrastructure has been designed specifically for stable permafrost conditions, significant investments will be needed to meet the infrastructure challenges posed by climate change.



## GREEN INFRASTRUCTURE AND INNOVATION

### Targets and indicators

**By March 31, 2024, 1,000 electric vehicle chargers, 22 natural gas stations, and 15 hydrogen stations along major highways, freight corridors and key metropolitan centres are completed (Minister of Natural Resources)**

#### ➤ **Number of low-carbon recharging and refueling stations along major highways, and in rural and urban areas**

This indicator tracks the number of low-carbon recharging and refueling stations completed along major highways, and in rural and urban areas across Canada. As of March 2019, projects were in place to support the deployment of 526 new electric vehicle fast chargers along Canada's highway system, 12 new natural gas refueling stations along key freight corridors, and 6 hydrogen stations in key metropolitan centres.

**By March 31, 2026, 33,500 new electric vehicle chargers in public places, on-street, at apartment buildings, retail outlets and the workplace, as well as 10 new hydrogen stations are completed (Minister of Natural Resources)**

#### ➤ **Number of low-carbon recharging and refueling stations in public places, on-street, at apartment buildings, retail outlets and the workplace**

This indicator tracks the number of low-carbon recharging and refueling stations completed in public places, on-street, and at apartment buildings, retail outlets and the workplace. As of February 2021, 13,000 recharging stations were in place.



**By fiscal year 2027 to 2028, the federal share of the value of green infrastructure projects approved under the Invest in Canada plan will reach \$26.9 billion (Minister of Intergovernmental Affairs, Infrastructure and Communities)**

➤ **Value of green infrastructure projects approved under the Investing in Canada plan**

This indicator tracks the Green Infrastructure Stream portion of the funding from the Investing in Canada Plan, which includes greenhouse gas mitigation, adaptation, resilience and disaster mitigation and environmental quality. As of October 31, 2021, 66% (\$17.6 billion) has been committed to approved projects under the Green Infrastructure Stream of the Investing in Canada Plan.

## **Implementation strategy**

◆ **Attract and scale up sustainable finance in Canada**

Continue to take policy action to foster growth of a sustainable finance market in Canada.

◆ **Develop and implement climate-resilient codes and standards**

Develop, update and implement national model construction codes for energy-efficient buildings, and codes, standards and guidance for improved climate resilience of new and existing core public infrastructure.

◆ **Invest in deployment and adoption of clean technologies**

Support innovative clean technologies ready for deployment at commercial scale to strengthen Canadian innovation capacity, support small and medium sized clean technology companies to take Canadian ideas to market, and accelerate adoption of clean technologies across all sectors of the economy.

◆ **Invest in green infrastructure**

Support and adopt green infrastructure and natural infrastructure projects to mitigate and adapt to climate change, protect the natural environment and drive the economy.

◆ **Invest in research, development and demonstration of clean technologies**

Support innovative projects and clean technologies across the economy, including in the heavy industry, life sciences, automotive, aerospace and agriculture sectors, to stimulate innovation and reduce domestic greenhouse gas emissions.

## Short-term milestones

### ■ **Deliver standardization strategies**

By 2026, more than 30 standardization strategies will be delivered under the Standards Council of Canada's renewed Standards to Support Resilience in Infrastructure Program (2021 to 2026), to boost infrastructure resilience and create stronger communities for Canadians.

### ■ **Demonstrate electric and hydrogen vehicle infrastructure**

By 2024, complete 5 to 8 demonstration projects to address barriers and create innovative solutions related to the implementation of electric and hydrogen vehicle infrastructure.

### ■ **Enable new and revised codes, standards and guidelines and decision support tools for climate-resilient infrastructure**

By 2026, the Climate Resilient Built Environment Initiative will enable additional climate change resiliency considerations to be incorporated into 3 Canadian Codes (National Building Code, Canadian Highway Bridge Design Code, and Canadian Electrical Code), and develop 4 new standards for resilient infrastructure, decision support tools for the design and management of public infrastructure, and new guidance documents in the areas of flooding infrastructure and nature-based solutions.

### ■ **Grow business investment in research and development**

Increase Canadian business expenditures in research and development to \$30 billion by 2025, keeping pace with the Organisation for Economic Co-operation and Development average as a percentage of gross domestic product.

### ■ **Publish a Carbon Capture, Utilization and Storage Strategy**

In 2022, publish a Carbon Capture, Utilization and Storage (CCUS) Strategy reflecting the opportunities offered by CCUS across regions and sectors, and outlining a vision and set of recommended federal actions to support the competitiveness of Canada's CCUS industry in order to realize its greenhouse gas reduction and commercial potential.

### ■ **Publish national model codes**

By 2025, on behalf of the Canadian Commission on Building and Fire Codes, National Research Council Canada will publish new versions of national model construction codes (National Building Code of Canada, National Fire Code of Canada, National Plumbing Code, and National Energy Code of Canada for Buildings) that will continue to help guide energy efficiency improvements in existing buildings, and support adopting increasingly stringent model codes leading to adopting net-zero energy codes.

### ■ **Support research, development and demonstration of carbon capture, utilization and storage technologies**

By 2026, support 65 to 100 research, development and demonstration projects related to carbon capture, utilization and storage technologies.



## BEYOND THE TARGETS

The indicator below provides additional context for targets and other commitments supporting Sustainable Development Goal 9.

- © **Greenhouse gas emissions per dollar of value-added from the production of infrastructure assets**  
This indicator tracks the greenhouse gas emissions per value-added of infrastructure construction. In 2020, the greenhouse gas emissions per value added in Canada for all assets was 0.3862 tonnes per thousand dollars.



## CHAPTER 10

# TAKE ACTION ON ENVIRONMENTAL INEQUALITIES AND COLLABORATE ON ENVIRONMENTAL AND NATURAL RESOURCE MANAGEMENT

Federal Environmental Perspective on SDG 10

## The Environmental Perspective

This chapter's focus on taking action on environmental inequalities and collaborating on environmental and natural resource management draws inspiration from [SDG Global Indicator Framework](#) Target 10.3: Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.



The environmental aspects of inequality have many dimensions and reinforce disparities that are multidimensional and intersectional. These disproportionately affect people sharing identity factors such as gender, race, Indigeneity, disability, and low socioeconomic status, especially those with multiple identities. These identity factors are compounded by systemic and structural barriers, which together create a vicious cycle in which economic, health and social impacts are borne disproportionately by groups and people who are already marginalized and face barriers to participating in the emerging clean economy.

Environmental inequalities are prevented and resolved through environmental equity and environmental justice. These terms refer to the [equitable treatment and meaningful inclusion](#) of all people in laws, regulations, and programs to protect them from environmental hazards, and which [facilitate their access to environmental benefits and opportunities](#) in the clean economy. This is particularly true for people who are systemically marginalized because of multiple and interacting identity factors such as race, ethnic or language group, national origin, gender identity, sexual orientation, income, and/or disability status, among other factors.

While climate change, biodiversity loss and pollution touch all in Canada, their effects are not evenly distributed, differing according to geographic location, gender, income level, ethnicity and other socioeconomic factors. Large urban centers will experience amplified heat waves, people living in rural areas who depend on agriculture may experience loss of livelihood, and Indigenous peoples who rely on land and water for their traditional ways of life may experience disruption. Northern and coastal regions in Canada are particularly vulnerable to the impacts of climate change. Meanwhile, persons with disabilities are disproportionately affected by extreme climate change events due to challenges such as compromised health, lack of accessibly presented information, and difficulties accessing mobility supports during migration or evacuation. Mitigating the effects of a changing environment in a balanced and inclusive manner will benefit everyone in Canada, and will help alleviate the impacts of climate change, biodiversity loss and pollution on people at risk.

First Nations, Inuit and the Métis Nation have been stewards of their traditional lands and waters since time immemorial. As distinct peoples, they hold inherent, unique and constitutionally protected Aboriginal and Treaty rights. Indigenous peoples must always be engaged in decisions about environmental management and natural resource development within their territories on a nation-to-nation, Inuit-Crown and government-to-government basis, and in keeping with any requirements as they are set out in modern treaties.

The environment and natural resources must also be carefully and sustainably managed so that Indigenous peoples and everyone else in Canada can benefit from a clean environment free from pollution, and from a healthy and prosperous future. Indigenous Knowledge provides valuable insights, alongside western science, in promoting sustainable management of the environment and natural resources. Aiming to secure free, prior and informed consent on matters impacting Indigenous rights supports strengthened relationships, trust and mutual respect. Developing natural resources sustainably and equitably is essential to reducing inequalities in economic development and access to a clean environment.

At the same time, it is important to ensure that the social and economic effects of environmental policy are accounted for when they risk increasing existing inequalities. For example, low-income households or those facing food insecurity—often headed by single mothers, persons with disabilities, recent immigrants and Indigenous peoples—may be more at risk from the effects of carbon pollution pricing, as expenditures on carbon-intensive goods make up a larger share of their expenses.

## INTERGENERATIONAL EQUITY

Intergenerational equity—or the ability to meet the needs of the present generation without compromising the ability of future generations to meet their own needs—is a principle of the *Federal Sustainable Development Act*. It is about ensuring that future generations inherit a set of economic and environmental assets that are at least as good as the previous generation's.

A stable climate, clean air and water, and healthy ecosystems (including sustainably managed forests and fisheries) provide the essential building blocks for all generations to meet their needs. Future generations in Canada (especially Indigenous peoples and northerners) and around the world could inherit many of these environmental assets in a worsened state due to climate change, pollution, and the destruction of species and ecosystems. Urgent action is needed to halt and reverse these trends so that future generations can meet their needs and aspirations.

In addition to age or generation, people experience climate change and other environmental challenges differently based on many characteristics inherent to who they are. For these reasons, youth in Canada from diverse backgrounds and with multiple identities related to race, gender identity and expression, Indigeneity, geography, income and disability status should be at the center of these discussions to ensure a better representation of their priorities and needs.

## CLIMATE CHANGE IMPACTS ON 2SLGBTQQIA+ COMMUNITIES

According to the [Intergovernmental Panel on Climate Change's Third Assessment Report on the state of knowledge concerning the sensitivity, adaptability, and vulnerability of physical, ecological, and social systems to climate change](#), people who are already at risk will experience the greatest impacts of climate change.

[Two Spirit, Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Intersex, and Asexual Plus](#) (2SLGBTQQIA+) communities in Canada face social, economic, health, and legal inequalities as well as discrimination and stigmatization, all of which affect their ability to adapt and respond to a changing environment. Moreover, given that 25 to 40% of youth experiencing homelessness in Canada are youth and identify as 2SLGBTQQIA+, extreme weather patterns related to climate change may disproportionately affect this group.

[Studies](#) report that 2SLGBTQQIA+ people are more likely than others to be severely impacted by disasters and may need extra help to cope with them. Prior to a disaster, members of the 2SLGBTQQIA+ community may not have access to the same supports and information as the general population because of potential exclusion, isolation, restricted social networks, and socioeconomic status. Following disasters, they may have difficulty finding access to shelters or face disrespect or harassment in settings such as emergency shelters.

For these and other reasons, climate adaptation, disaster prevention and response activities need to be accessible and appropriate for the 2SLGBTQQIA+ community. An important early step in preparing for these events is to ensure active engagement with local groups that represent and have experience working with 2SLGBTQQIA+ populations.

## HOW ACTION TO SUPPORT OTHER SDGS, WITH A FOCUS ON THEIR ENVIRONMENTAL ASPECTS, CONTRIBUTES TO REDUCED INEQUALITIES



Taking action on poverty reduces inequalities in access to resources, opportunities, and the goods and services required to achieve well-being and sustainability. From an environmental perspective, work toward disaster awareness and adaptation to climate change can benefit marginalized communities and those at risk of severe losses.



Working to increase the sustainability of Canada's agriculture sector helps to provide sustainably grown and managed food to global consumers in areas of the world that are unable to meet their own food production needs. At home, working to address food insecurity seeks to reduce inequalities in food access in Canada.



Decreasing Canadians' exposure to pollution will provide important health benefits to all Canadians. This is especially true for racialized and other disadvantaged communities, who have been disproportionately impacted by the COVID-19 pandemic and other environmental health risks.



Increasing graduation rates and advancing research in STEM creates a skilled and productive workforce that benefits all Canadians, including those from historically underrepresented groups. Access to climate information helps Canadians make informed decisions that keep them and their communities safe.



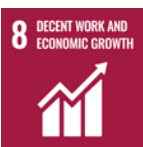
Promoting employment, skills and training for diverse groups of women, men, and gender-diverse peoples in the environment and clean technology sector plays a critical role in reducing inequality within Canada and increasing participation in decision making.



Reducing risks to public water systems and public wastewater systems on reserves as well as promoting sustainable water use and safeguarding water quality in lakes and basins provides broad benefits for all Canadians.



Providing accessible, clean energy and energy efficiency services to Indigenous, remote, low-income and marginalized communities can increase energy affordability and building performance, while improving local air quality.



Creating decent, well-paid clean technology jobs in various regions of the country can reduce economic inequality. It is also the cornerstone of a just transition, ensuring that workers exiting Canada's fossil fuel sectors can access well-paid employment opportunities in other sectors.



Supporting infrastructure that helps reduce greenhouse gas emissions and other environmental impacts, and promoting resilience through natural infrastructure, provides important benefits for Canadians from all walks of life. Low-income and marginalized communities are often more reliant on public infrastructure.



While accessible public transit and access to green space benefits all Canadians, it is especially valuable to low-income and racialized communities that are often reliant on public transportation and are less likely to have access to urban green space.



Zero-emission vehicle sales targets and incentives aim to increase their affordability among the Canadian population. Increasing solid waste diversion benefits all Canadians, especially those living close to landfills and waste disposal sites.



Taking action on climate change helps reduce the severity of climate-related incidents such as heat waves, natural disasters and extreme weather events. Indigenous peoples, racialized communities, and other populations at risk are often hit hardest by these events, as they typically have fewer resources to adapt or recover.



Managing sustainable fisheries is important for all Canadians. It helps to ensure Canada's fishery resources provide economic, subsistence, and cultural benefits to Indigenous peoples, fish harvesters, and coastal communities, now and in the future.



Conserving land, fresh water, and wildlife populations provides health, recreational, cultural, and aesthetic benefits for all Canadians. Conservation also safeguards Indigenous peoples' continued access to species that have important food, medicinal, cultural and spiritual values.



Strong institutions ensure that proposed development projects consider and mitigate impacts on everyone, including women, Indigenous peoples, and those at risk, and that environmental laws are fairly, effectively and transparently enforced for the benefit of all.



Promoting environmental partnerships, international assistance, climate finance, and equitable and sustainable trade in natural resources reduces inequalities for access to resources and environmental services, both within Canada and across the globe.



## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 10 are listed below.

- Eliminate remaining long-term drinking water advisories on reserve and make sure that long-term investments and resources are in place to prevent future ones (Minister of Indigenous Services and Minister responsible for the Federal Economic Development Agency for Northern Ontario).
- Fully implement the *United Nations Declaration on the Rights of Indigenous Peoples Act* and consult and collaborate with Indigenous peoples on an action plan to achieve the objectives of the Declaration (Minister of Justice and Attorney General of Canada; with support from all ministers, and particularly the Minister of Crown-Indigenous Relations; Minister of Indigenous Services; and the Minister of Natural Resources).
- Continue to work in partnership with First Nations, Inuit and the Métis Nation to address climate change and its impacts, and chart collaborative strategies (Minister of Environment and Climate Change; Minister of Crown-Indigenous Relations; Minister of Indigenous Services).
- Recognize a "right to a healthy environment" in federal law and introduce legislation to require the development of an environmental justice strategy and the examination of the link between race, socioeconomic status and exposure to environmental risk (Minister of Environment and Climate Change).
- Continue to lead the evaluation process of GBA Plus with the goal of enhancing the framing and parameters of this analytical tool and with particular attention to the intersectional analysis of race, indigeneity, rurality, disability and sexual identity, among other characteristics (Minister for Women and Gender Equality and Youth; supported by the Minister of Housing and Diversity and Inclusion; the President of the Treasury Board; the Minister of Crown-Indigenous Relations; the Minister of Rural Economic Development; the Minister of Tourism and Associate Minister of Finance; Minister of Employment, Workforce Development and Disability Inclusion).

## How the Government of Canada Contributes

The Government of Canada is addressing the environmental perspectives of inequality, including by promoting environmental justice, integrating equity considerations into its strengthened climate plan, advancing reconciliation with First Nations, Inuit and the Métis Nation, and providing climate finance for climate change mitigation and adaptation measures in developing countries.

The Government of Canada is taking action to combat racism and discrimination in all its forms. In 2019, the government unveiled [Building a Foundation for Change: Canada's Anti-Racism Strategy 2019–2022](#). Building on a national engagement process with Indigenous peoples and racialized and religious minority communities, \$95 million has been allocated to the strategy and its initiatives to combat racism and discrimination.

The Government of Canada is also taking steps to better understand and address the environmental dimensions of inequality and advance environmental justice. When assessing and managing risks under the [Canadian Environmental Protection Act, 1999](#) (CEPA) and other legislation, federal departments consider effects on communities living in proximity to commercial industrial facilities, as well as First Nation and Inuit populations. As a first step toward a formal policy framework on identifying, assessing and managing the effects of chemicals and other substances on vulnerable populations under CEPA and other legislation, the Government of Canada

engaged in a series of consultations on defining vulnerable populations in late 2018 and early 2019. On February 9, 2022, the Government of Canada [introduced a bill to enact a strengthened CEPA](#) to recognize a “right to a healthy environment” in federal law and to protect everyone, including people most vulnerable to harm from toxic substances and those living in communities where exposure is high.

Under the federal air quality program, the Government of Canada intends to assess how to better address air pollution “hot spots” that potentially have an impact on populations at risk.

Climate mitigation policies such as carbon pricing need to be designed with equity in mind as energy costs make up a greater share of low-income households’ income and expenditures. Canada’s strengthened climate plan [A Healthy Environment and A Healthy Economy](#) reaffirmed the federal government’s commitment to continue to price carbon pollution and acknowledged that not all groups are affected by carbon pricing in the same way. The federal approach to pricing carbon pollution addresses equity issues by recognizing particular groups or sectors may require targeted support or relief, such as farmers, fishers, residents of rural and small communities, users of aviation fuel in the territories, greenhouse operators, and power plants that generate electricity for remote communities. In provinces and territories where the federal fuel charge applies, proceeds will go back to Canadian families and their communities. The return to families was also designed to address the circumstances of single-parent households. Where the Output-Based Pricing System applies, proceeds will further support industrial decarbonization and electrification.

Advancing reconciliation with First Nations, Inuit and the Métis Nation is a crucial step toward addressing inequality and closing the socioeconomic gap between Indigenous peoples and non-Indigenous Canadians. Canada’s commitment to implementing the United Nations Declaration on the Rights of Indigenous Peoples reflects the importance of working collaboratively with First Nations, Inuit and the Métis Nation to advance reconciliation and promote greater equality and prosperity for Indigenous peoples and all Canadians.

Among other affirmations of human rights, the Declaration affirms rights relating to the conservation and protection of the environment on the lands and territories of Indigenous peoples. It also highlights the importance of free, prior and informed consent and the effective and meaningful participation of Indigenous peoples in decisions that affect them, their communities and territories. In the context of environment and natural resource management, free, prior and informed consent is about First Nations, Inuit and the Métis Nation working together with the federal government in good faith, partnership and respect, with the objective of achieving consensus on decisions that impact Indigenous rights and interests.

The Government of Canada fully endorsed the Declaration without qualification in 2016 and committed to its full and effective implementation, in keeping with the [Truth and Reconciliation’s Commission’s Calls to Action](#) and the [National Inquiry into Missing and Murdered Indigenous Women and Girls’ Calls for Justice](#). On June 21, 2021, the [United Nations Declaration on the Rights of Indigenous Peoples Act](#) received Royal Assent and immediately came into force. The UN Declaration Act provides a framework to advance the Government of Canada’s implementation of the Declaration in partnership with First Nations, Inuit and the Métis Nation. It is about protecting, promoting, and upholding Indigenous rights, including rights to self-determination, self-government, equality, and non-discrimination as a basis for forging stronger relationships with First Nations, Inuit and the Métis Nation. Through consultation and cooperation with First Nations, Inuit and the Métis Nation on the development of an action plan, and through measures to ensure the consistency of federal laws with the Declaration, more specific approaches and proposals contributing to the implementation of the Declaration will be developed over time.

The federal government plays an important role in the well-being of Canada's population and in reducing inequalities through the supports and services it provides. It has sustained its commitment to actions that are targeted at addressing specific barriers and inequalities. In addition, the government has a long-standing commitment to embedding equality, diversity and inclusion objectives in all its actions. Canada's approach to equality mainstreaming is Gender-based Analysis Plus (GBA Plus). GBA Plus is an effective tool to support the development of responsive and inclusive initiatives, including policies, programs, and other initiatives that meet the needs of individuals and diverse groups of people.

## **PROMOTING OPPORTUNITY FOR RACIALIZED AND INDIGENOUS CANADIANS**

As part of its agenda to tackle racial inequality, the Government of Canada is providing resources for Black and Indigenous business owners to engage in entrepreneurship through the [Black Entrepreneurship Program](#) and the [Aboriginal Entrepreneurship Program](#). Budget 2021 allocated an additional \$51.7 million over 4 years to support the Black Entrepreneurship Program. Led by Innovation, Science and Economic Development Canada and Canada's regional development agencies, the program provides loans of up to \$250,000 for Black business owners and entrepreneurs. It also provides financial support for not-for-profit organizations to offer training and mentorship to black entrepreneurs, and to conduct research on barriers and limitations to business growth.

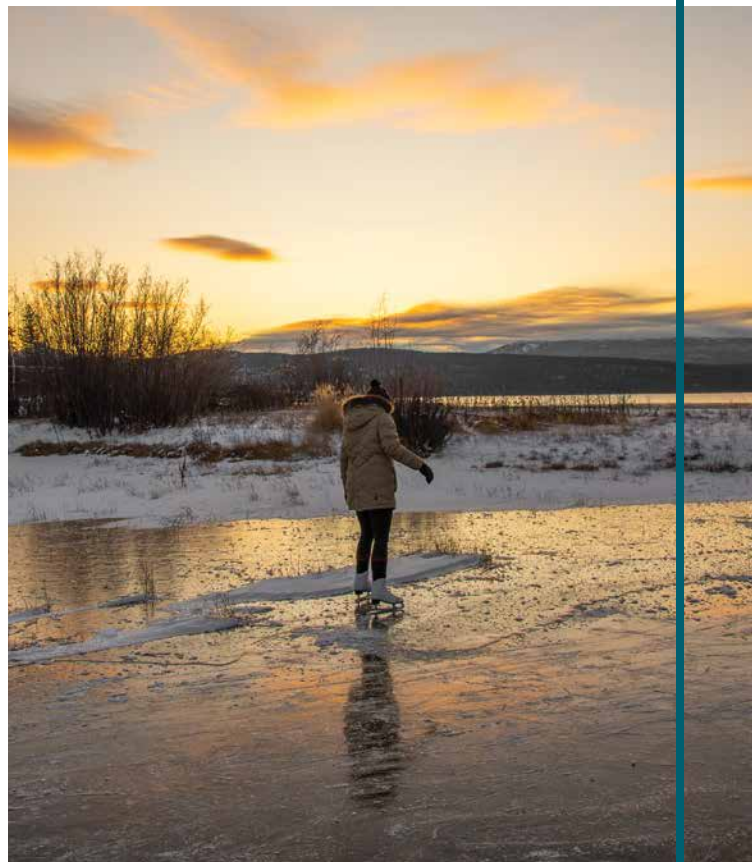
Budget 2021 also allocated \$42 million to Indigenous Services Canada over 3 years to grow the Aboriginal Entrepreneurship Program, which provides Indigenous entrepreneurs with access to capital and to business opportunities such as market development, business advisory services, and training. For instance, as part of a network of 59 Aboriginal Financial Institutions involved with the program, the Native Fishing Association provides loans to Indigenous commercial fishers in the B.C. commercial fishing industry.

The government also recently announced the [Work to Grow Program](#), funded by Parks Canada and delivered by Nature Canada. The program provides learning and community-building opportunities and a 50% wage subsidy to hire racialized youth aged 15 to 30 to secure jobs in the nature conservation and appreciation sectors. The Work to Grow program aims to provide employment opportunities to over 275 racialized youth. Program participants are also provided with career development and networking opportunities. The Work to Grow program is strengthening the voices of racialized youth in the nature conservation and appreciation sectors.

## ACCESS TO CLEAN DRINKING WATER IN FIRST NATION COMMUNITIES ON RESERVE

While Canada's drinking water is among the safest in the world, access to clean drinking water remains a challenge in small and remote communities, such as First Nation communities on reserve. On reserve, the provision of safe drinking water is a shared responsibility among First Nation communities and the Government of Canada. First Nations own and operate their water and wastewater systems and design and construct facilities. The Government of Canada provides advice and financial support to First Nation communities for their public water and wastewater systems and ensures that drinking water quality monitoring programs are in place.

The solutions to addressing drinking water in First Nations are unique to each community, and Indigenous Services Canada works closely with each community to find the most appropriate solution. Indigenous Services Canada is supporting First Nation partners to achieve sustainable access to safe drinking water, including by: committing \$5.6 billion in funding since 2016 to First Nations to upgrade water and wastewater infrastructure on reserve, to better support the operation and maintenance of systems, and to improve the monitoring and testing of community drinking water; supporting First Nations to address and prevent long-term drinking water advisories—between November 2015 and December 16, 2021, 124 Long-Term Drinking Water Advisories and 205 Short-Term Drinking Water Advisories have been lifted from public systems on reserve; and advancing reconciliation through the approval of the Safe Drinking Water Settlement Agreement. Indigenous Services Canada continues to partner with First Nations to develop new approaches that will ensure that on-reserve water and wastewater systems are safe and adequately meet the needs of each community.





## TAKING ACTION ON INEQUALITY

### Target and indicator

**Between 2022 and 2026, continue to report on an annual basis to Canadians on access to clean drinking water in First Nations communities through Indigenous Services Canada's departmental website as data becomes available (Minister of Indigenous Services)**

#### ➤ **Reporting on access to clean drinking water in First Nations communities**

This indicator tracks reporting to Canadians on access to clean drinking water in First Nations communities, including on progress toward ending long-term drinking water advisories. Indigenous Services Canada reports this information through its [departmental website](#) as data becomes available.

### Implementation strategy

#### ◆ **Take action towards eliminating remaining long-term drinking water advisories on reserve**

Working with First Nations, continue to take action in support of the commitment to eliminate remaining long-term drinking water advisories on reserve and increase efforts to ensure that long-term investments and resources are in place to prevent future ones. For example, continue to take measures to support Indigenous-led engagement processes, co-develop long-term strategies for sustainable drinking water and wastewater, and invest in water and wastewater assets, including their operation and maintenance.

#### ◆ **Collaborate and engage with Indigenous peoples**

Involve Indigenous peoples in the impact assessment of designated projects, and work with Indigenous peoples to sustainably manage natural resources and natural heritage spaces, including through cooperative management structures; ownership agreements; collaborative research and innovation; collaborative fisheries agreements; natural resource partnerships with Indigenous peoples; and Indigenous-led economic development projects in forestry and other natural resource sectors. Engage Indigenous groups in the development of protocols under the Federal Greenhouse Gas Offset System.

#### ◆ **Implement the Disaggregated Data Action Plan to fill data and knowledge gaps on inequalities**

Support more representative data collection, enhance statistics on diverse populations, and support the government's, and society's, efforts to address systemic racism and gender gaps—including the power gaps between men and women—and bring fairness and inclusion considerations into decision making.

#### ◆ **Return fuel charge proceeds equitably through Climate Action Incentive payments and other supports**

Continue to return all direct proceeds from the federal carbon pricing system in a way that makes the majority of Canadian households better off.

#### ◆ **Support entrepreneurship for Black and Indigenous communities**

Provide financial support as well as business advisory services, mentorship, and training opportunities for Black and Indigenous entrepreneurs, including in the environmental sector.

- ◆ **Support the implementation of the United Nations Declaration on the Rights of Indigenous Peoples**  
The Government of Canada will work to implement the [\*United Nations Declaration on the Rights of Indigenous Peoples Act\*](#), in consultation and cooperation with Indigenous peoples. The Action Plan to be developed under this Act is likely to include measures that will engage environmental and natural resource management, such as: collaborative research and data sharing efforts; using both Indigenous Knowledge and science to inform government decision making; continuing discussions toward co-development mechanisms for environmental stewardship (including but not limited to modern treaties); and other priorities as identified by Indigenous peoples and their representative organizations through the consultation and cooperation process. Federal organizations will identify actions to support the implementation of the UN Declaration Act in consultation and cooperation with Indigenous peoples, and in accordance with their own mandates.

## Short-term milestones

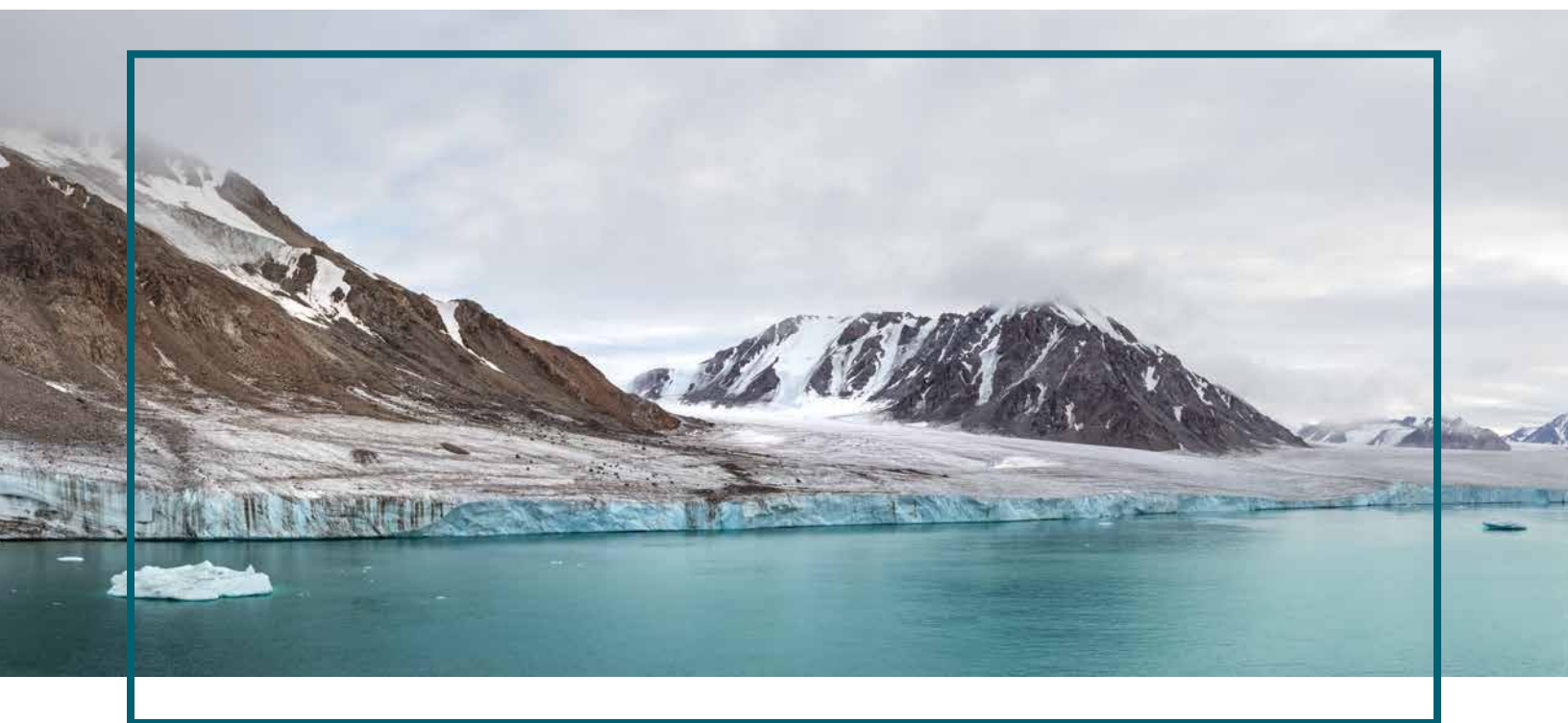
- **Champion the role of Indigenous peoples in the Arctic Council**  
From 2022 to 2026, ensure that a majority of reports on circumpolar issues of contaminants, climate change, and sustainable development delivered to Arctic Council Ministerial events include Canadian data and information, and are pursued with joint participation of Indigenous Permanent Participants to the Arctic Council.
- **Collaborate with Indigenous peoples in fisheries management**  
By 2026, and reported annually, implement at least 382 fisheries agreements or arrangements involving Indigenous communities/organizations, and ensure that at least 506 Indigenous people receive training and at least 4,760 Indigenous people receive employment through these fisheries agreements or arrangements.
- **Increase participation of Indigenous communities, organizations or governments in Canada's data governance and knowledge economy**  
By 2026, ensure that 50% of Natural Resources Canada's federal/provincial/territorial governance tables that are implicated in data sharing and the knowledge/digital economy have undertaken training related to Indigenous data sovereignty.
- **Publish the National Pollutant Release Inventory Indigenous Series**  
By 2026, continue to communicate through the National Pollutant Release Inventory Indigenous Series to better understand the environmental challenges related to air, water, and land pollutants faced by Indigenous communities across Canada. This series provides a starting point for analyses, engagement and improvements.

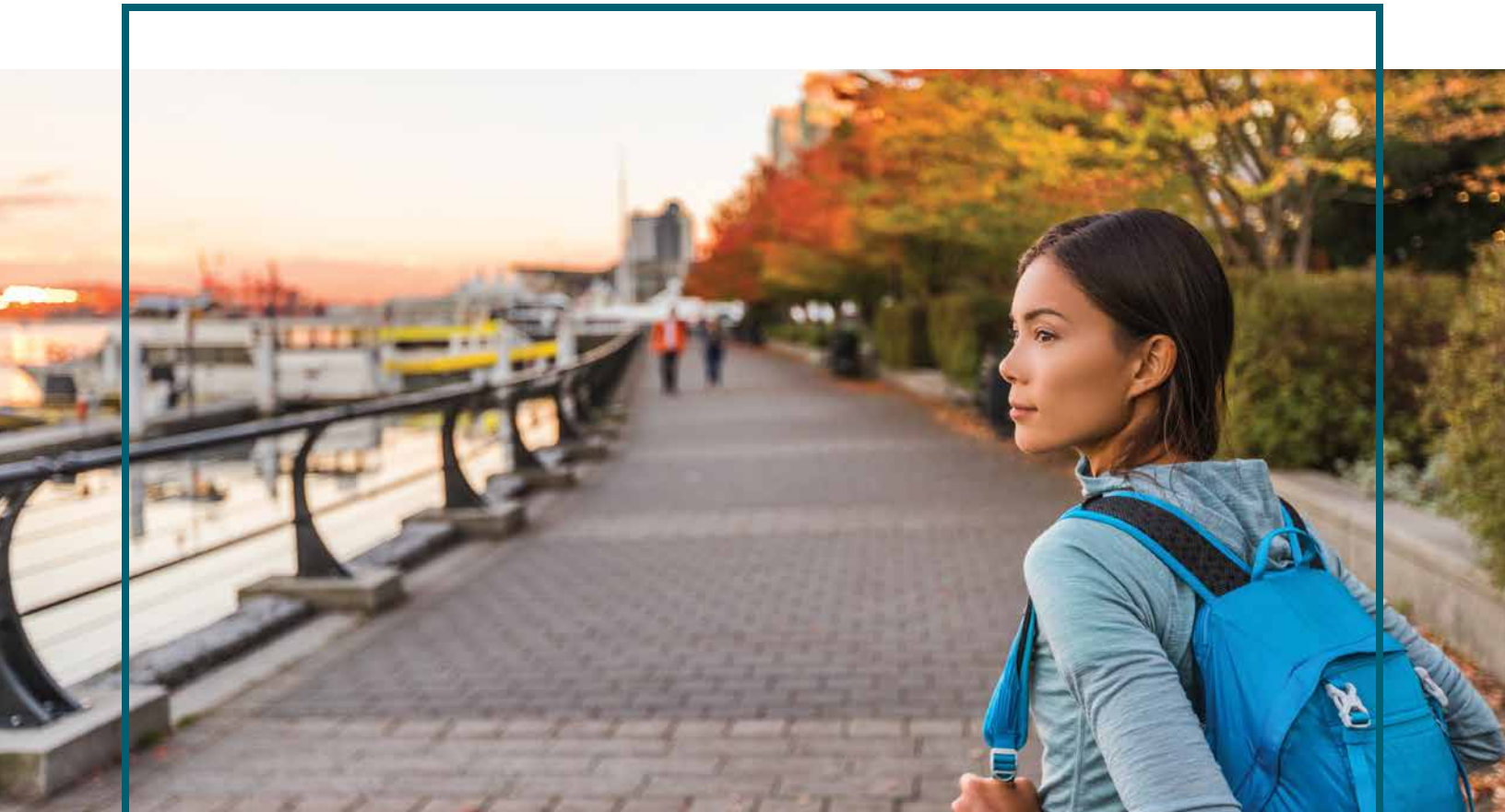
## BEYOND THE TARGETS

The indicator below provides additional context for targets and other commitments supporting Sustainable Development Goal 10.

© **Percentage of Indigenous peoples engaged with Environment and Climate Change Canada through conservation activities who indicate that the engagement was meaningful**

This indicator tracks Indigenous peoples' perceptions of meaningful engagement with Environment and Climate Change Canada on conservation activities. 61% in fiscal year 2018 to 2019 and 69% in fiscal year 2019 to 2020 indicated that the engagement was meaningful.





## CHAPTER 11

# IMPROVE ACCESS TO TRANSPORTATION, PARKS, AND GREEN SPACES, AS WELL AS CULTURAL HERITAGE IN CANADA

## Federal Environmental Perspective on SDG 11

### The Environmental Perspective

In Canada, an important part of making cities and communities sustainable is improving access to transportation, parks, and green spaces, as well as cultural heritage. This chapter's focus on promoting public transit and active transportation and helping Canadians get out in nature supports [SDG Global Indicator Framework](#) targets 11.2: By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons; 11.3: By 2030, enhance inclusive and



sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries; 11.4: Strengthen efforts to protect and safeguard the world's cultural and natural heritage; and 11.7: By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.

Urban resilience is crucial to avoid human, social and economic losses. Meanwhile, improving the sustainability of urbanization is required to protect the environment and face a changing climate.

Increased public transit and opportunities for active transportation support the transition to a net-zero economy by reducing air pollution, greenhouse gas emissions and urban congestion. They also support economic growth by enabling greater access to employment as well as other opportunities and services. Public transit and opportunities for active transportation are improving within Canada. Several light rail transit projects are underway in Canadian cities. Cycling networks are also expanding and pedestrian-friendly streets are becoming more common.

The COVID-19 pandemic has affected transit systems across Canada. Transit ridership dropped significantly in spring 2020 and has remained below pre-pandemic levels, reducing revenues for many cities and communities. However, during the pandemic, public and active transportation have been essential for those unable to work remotely. Meanwhile, former public transit riders have been able to continue to travel sustainably through active transportation, which includes walking, jogging, cycling, kayaking, and more.

Making cities and communities more sustainable also means providing access to green spaces. [Most Canadians](#) agree that access to community green space is important to their quality of life now and in the future, and three quarters say that their local green space could benefit from improvement.

Canadians living in communities with populations of less than 10,000 experience more [barriers](#) to accessing physical activity than those in larger communities with populations of 250,000 or greater. This means that rural Canadians currently experience greater barriers to accessing green spaces than urban Canadians, including lack of sidewalks, lack of street lighting, and lack of access to facilities and transportation. These gaps in infrastructure make it harder for those living in rural areas to undertake active transportation. Nature trails are generally free to use, making them an excellent opportunity to advance equity of access to green spaces.



## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 11 are listed below.

- Continue the transformation of public transit in Canada by accelerating major public transit projects, supporting the switch to zero-emission buses, developing rural transit solutions and continuing the roll-out of the National Active Transportation Strategy. Work on the design of the permanent public transit fund (Minister of Intergovernmental Affairs, Infrastructure and Communities).
- Make additional investments through the Natural Infrastructure Fund to support community-led public green space projects by municipalities, Indigenous communities and non-profit organizations (Minister of Intergovernmental Affairs, Infrastructure and Communities).
- Accelerate the design and delivery of the next phase of the Smart Cities Challenge (Minister of Intergovernmental Affairs, Infrastructure and Communities).
- Develop a national trails tourism strategy that also leverages the creation of new urban parks in order to enhance local opportunities for economic development and youth employment (Minister of Tourism and Associate Minister of Finance; supported by the Minister of Environment and Climate Change and the Ministers responsible for Regional Development Agencies).

## How the Government of Canada Contributes

The Government of Canada is committed to ensuring cities and communities are resilient and environmentally sustainable. This means improving public transportation and providing support for natural infrastructure. While provincial, territorial and municipal governments own the majority of core public infrastructure, there is collaboration at all levels.

The [Permanent Public Transit Fund](#) will support new subway lines, light-rail transit and streetcars, electric buses, active transportation infrastructure, and improved rural transit. This will create affordable commuting options and reduce Canada's emissions. It will also provide local governments with predictable transit funding so Canada can keep building more sustainable and livable communities. In addition, the Government of Canada has released its first [National Active Transportation Strategy](#) and launched the Active Transportation Fund, which will help build new and expanded networks of pathways, bike lanes, trails and pedestrian bridges and undertake planning studies.



The new [Natural Infrastructure Fund](#) will support projects related to local parks, green spaces, and waterfronts as well as design elements that enhance human access to nature. These design elements may include walkways, ramps, signage, lighting, garbage bins, benches, and multi-functional piers. Natural features will also support biodiversity goals and targets by providing wildlife habitat, resources, and connectivity, and these projects can provide public education opportunities related to natural processes and species.

[The Green Municipal Fund](#) (GMF) supports innovative and replicable municipal environmental projects through grants, loans, capacity building, and knowledge sharing. With GMF support, municipalities and their partners can pursue plans, studies, pilots, and capital projects that improve energy efficiency, reduce pollution, and deliver triple bottom line benefits to communities across Canada. Since its original endowment in 2000, the GMF has grown into a \$1 billion revolving fund and used the investment of \$950 million from Budget 2019 to create new energy efficiency funding offers and endow 7 local climate hubs through the Low Carbon Cities Canada initiative.



## BACK TO THE LAND

Back to the Land initiatives help further a connection between Indigenous communities and their ancestral land. By bringing Indigenous peoples closer to the land culturally, socially and spiritually, Back to the Land initiatives aid in maintaining sustainable land-use practices, support environmental conservation, and even promote social and psychological well-being. By supporting Back to the Land initiatives the Government of Canada can ensure these benefits are maintained, while also helping to preserve Indigenous cultural heritage and practices. The Mental Health Innovation Network's Going Off, Growing Strong program has helped socially-isolated Inuit youth connect with their community and cultural heritage and build strong relationships, and has resulted in drastically reduced rates of youth suicide through land-based activities such as hunting, fishing, and gathering, all of which build connections between Indigenous peoples with their communities and the land. Back to the Land initiatives respect the rights, responsibilities, needs, and unique perspectives of Indigenous peoples.



The Government of Canada also provides opportunities for Canadians to get out into nature and experience Canada's cultural heritage, including through Canada's network of national parks, national wildlife areas, migratory bird sanctuaries, national historic sites, and other protected areas. A new [National Urban Parks](#) program has been launched to create a network of national urban parks in collaboration with local authorities, Indigenous groups, and stakeholders with the goal of protecting biodiversity, supporting health and well-being, supporting reconciliation with Indigenous peoples, and connecting Canadians with nature close to where they live, work, and play.

Internationally, the Government of Canada adopted the [New Urban Agenda](#) at the United Nations 2016 Habitat III Summit in Ecuador. This will strengthen the commitment to make a meaningful contribution to the sustainable development of towns, cities and human settlements for the next 20 years.



## ACCESS TO GREEN SPACES IN CANADIAN CITIES

A green space is an outdoor, unbuilt space with trees or other kinds of vegetation. Green spaces include forests, parks, greenways, community gardens, and street trees. Numerous studies have shown that having access to green spaces is associated with a variety of physical and mental health benefits, including improved respiratory and cardiovascular health, lower incidences of obesity, and higher rates of psychological well-being. Green spaces can also provide protection against some of the harmful effects of climate change by improving air quality, mitigating the impacts of flooding, and reducing heat. However, access to green spaces in Canadian cities is not equally distributed. In the largest Canadian cities, lower-income individuals and new immigrants have less access to green spaces. By promoting access to quality green spaces in urban areas where such access is currently lacking, governments can help ensure that the benefits of green spaces are distributed equally across socioeconomic and ethno-cultural dimensions.

## PUBLIC TRANSIT AND ACTIVE TRANSPORTATION

### Target and indicator

**By 2030, 22% of commuters use public transit or active transportation (Minister of Intergovernmental Affairs, Infrastructure and Communities)**

#### ➤ Population using public transit or active transportation

This indicator tracks the percentage of the population using shared or active transportation for commuting. In 2016, 19.6% of the population commuted using shared or active transportation.

### Implementation strategy

#### ◆ Invest in public transit and active transportation

Invest in public transit, rural transit and active transportation solutions to provide reliable, fast, affordable and clean ways for people to get around.

### Short-term milestone

#### ▣ Support the purchase of zero-emission buses

Beginning in 2021, support the purchase of 5000 zero-emission buses over the next 5 years.

# GREEN SPACES, CULTURAL AND NATURAL HERITAGE

## Targets and indicators

**Establish a new National Urban Parks policy and designate national urban parks as part of a network, with a target of 15 new national urban parks by 2030 (Minister of Environment and Climate Change)**

### ➤ **Designation of new national urban parks**

This indicator tracks the designation of national urban parks as part of a national network. The Rouge National Urban Park in the Greater Toronto Area, was established in 2015 by Parks Canada, and as of January 2022, is Parks Canada's only federally owned and operated national urban park.

**By 2026, maintain or increase the number of Canadians that get out into nature, relative to the 2018 to 2019 baseline (Minister of Environment and Climate Change)**

### ➤ **Number of visits to Parks Canada heritage places**

This indicator tracks the number of visits to Parks Canada heritage places. The 2018 to 2019 baseline is set at 25.1 million visitors. In 2019 to 2020, visits to Parks Canada heritage places were on par with the baseline (down 1%), as 24.9 million visitors experienced Canada's heritage places. Visitation declined 32% to 17 million in 2020 to 2021 as a result of COVID-19 public health measures and closures, but is expected to begin trending upwards again.

**By March 31 2022, increase annual visitation to the 10 national wildlife areas that are part of the Connecting Canadians to Nature Initiative by 25%, from a baseline of 220,050 in 2015 when the program was launched (Minister of Environment and Climate Change)**

### ➤ **Number of visits to selected national wildlife areas**

This indicator tracks the number of visits to selected national wildlife areas. Environment and Climate Change Canada's Connecting Canadians to Nature initiative launched in 2015 to provide the opportunity for Canadians to connect with nature by improving public access to national wildlife areas, especially those near urban areas. In 2019 to 2020, there were 270,870 visits to these national wildlife areas. Due to COVID-19, visitation dropped by 40% in 2020 to 2021 (to 133,379). This number is expected to rise again.

## Implementation strategy

### ◆ **Enhance visitor experience in parks and historic places**

Foster a connection to nature and culture by expanding and enhancing programs and services that meet the needs of visitors and facilitate positive and memorable experiences.

### ◆ **Promote access to green space, cultural and natural heritage**

Provide opportunities to connect with nature, green spaces, urban parks and culture. Develop green spaces in or close to urban centres and facilitate access to them.

### ◆ **Promote public engagement in green spaces, parks and historic places**

Encourage Canadians to visit their national parks and historic places, experience the outdoors and learn more about our environment, history and culture. Provide opportunities for the public to participate in citizen science and conservation management programs.

#### ◆ **Work with partners on conservation activities**

Engage with Indigenous peoples, partners and the public and in stewardship activities to protect and conserve natural space as well as wildlife species and their habitat.

### **Short-term milestone**

#### ▣ **Maintain access to Battlefields Park**

Between 2022 and 2026, maintain safe public access to Battlefields Park, a historic site in the heart of Québec City managed by the National Battlefields Commission.

## **BEYOND THE TARGETS**

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 11.

#### ◎ **Number of natural heritage places managed cooperatively with Indigenous peoples**

This indicator tracks the number of natural heritage sites that are managed cooperatively between Parks Canada and First Nations, Inuit and the Métis Nation. As of March 2021, 23 natural heritage places are managed cooperatively with Indigenous peoples.

#### ◎ **Population living close to a public transit stop**

This indicator tracks the percentage of the population living within 500 metres of a public transit stop. In 2016, 86.55% of Canadians had access to public transportation (65 to 80% in smaller or less-densely populated urban areas and 90% in large urban centres).

#### ◎ **Proximity to neighbourhood parks**

This indicator tracks proximity to neighborhood parks. In 2017, 87% of Canadians reported having a park or green space within a 10-minute journey from their home (90% in large urban areas, 85% in cities and towns, and 75% in rural areas and small towns).

#### ◎ **Visits to parks and public green spaces**

This indicator tracks trends in the percentage of Canadians who report that they visited parks or public green spaces. In 2017, 85% of Canadian households reported that they had visited a park or green space close to their home within the past 12 months.



## CHAPTER 12

# REDUCE WASTE AND TRANSITION TO ZERO-EMISSION VEHICLES

Federal Environmental Perspective on SDG 12

## The Environmental Perspective

This chapter's focus on reducing waste and transitioning to zero-emission vehicles directly supports [SDG Global Indicator Framework](#) Target 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

The Canadian economy relies on nature and the resources it provides. However, nature is under threat due to unsustainable patterns of production and consumption where a throwaway culture is the norm. In a 2021 study published by the Council of Canadian Academies, a first circularity rate for Canada is estimated at 6.1%. This value can be compared to those reported by Eurostat for the EU countries, where in the EU-27, the circularity rate is 14.4%.



Impacts of increasing rates of resource consumption can be significant, potentially leading to negative impacts on the environment, resource shortages, rising or volatile prices, and supply chain interruptions. Transitioning to a cleaner economy means finding smart new approaches and technologies that design waste out of our consumption systems—both biological and technical—and create economic opportunities out of the materials that citizens and organizations might otherwise throw away.

Shifting toward a more sustainable circular economy can reduce pressures on the planet, helping to address climate change, biodiversity loss and pollution while also creating new economic opportunities. It means addressing key waste management challenges of today, including growing waste volumes, plastic pollution, food and agricultural waste, climate change, and biodiversity loss.

The circular economy is founded on 3 principles: design pollution and waste out of the economy, keep products and materials in use (through sharing, reuse, repair, refurbishment, remanufacturing, and recycling), and work with nature to regenerate and enhance ecosystems. Using these principles, we can sustainably manage our economy for the benefit of current and future generations.

The private and public sectors, civil society, citizens and consumers are advancing the circular economy in Canada. Many of these efforts have focused on addressing [plastic waste and pollution](#) given that globally roughly 8 million tonnes of plastic enter oceans each year from land, causing an [estimated USD \\$13 billion](#) in damages annually to marine ecosystems. In addition, [plastic production](#) is a significant source of greenhouse gas emissions, and increased plastic production could negatively affect countries' ability to meet their Paris Agreement targets. For these reasons, plastic pollution and waste has emerged as a top global environmental priority, creating increasing momentum for a circular plastics economy.

In the agricultural sector, circular strategies focus on increasing the resource and energy efficiency of food systems (for example, precision agriculture), finding productive uses for food loss and waste (such as animal feed, up-cycled food products, composting and waste to resource), and investing in restoring ecosystems and biodiversity (for example, regenerative agriculture).

An important result of inefficiency in food systems, food loss and waste, is a global problem of enormous economic, environmental, and societal significance. A [2020 study](#) found that food loss and waste made up about 23% of the waste landfilled in Canada in 2016. Food loss and waste disposed in landfills produces methane, a short-lived but powerful greenhouse gas many times more potent than carbon dioxide. Emissions from Canadian landfills account for 23% of national methane emissions, and represent nearly 3.7% of Canada's total greenhouse gas emission inventory.

Transportation accounts for a quarter of Canada's greenhouse gas emissions, of which almost half comes from passenger cars and light trucks. One way to reduce the amount of transportation-related greenhouse gas emissions is to replace vehicles powered by fossil fuels (internal combustion engines, or ICEs), with zero-emission vehicles. In doing so, it will be important to ensure that the life-cycle carbon footprint associated with producing, powering and recycling zero-emission vehicles (and their component parts, such as lithium-ion batteries) is lower than that of ICE vehicles. Investing in public transportation, walkable communities, and car-sharing can also reduce emissions and support sustainable cities and communities.

## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 12 are listed below.

- Create a No-Waste Food Fund to help all players along the food supply chain to commercialize and adopt ways to eliminate, reduce or repurpose food waste (Minister of Agriculture and Agri-Food).
- Implement a 'right to repair' to extend the life of home appliances, particularly electronics, by requiring manufacturers to supply repair manuals and spare parts, and by amending the *Copyright Act* to allow for the repair of digital devices and systems (Minister of Innovation, Science and Industry; Minister of Environment and Climate Change).
- Strengthen federal procurement practices to prioritize reusable and recyclable products in support of our goal of zero plastic waste and to support procurement of Canadian clean technology (Minister of Public Services and Procurement; Minister of Innovation, Science and Industry).
- Develop a regulated sales mandate that at least 50% of all new light duty vehicle sales be zero emissions vehicles in 2030 as an interim step toward achieving Canada's mandatory target of 100% by 2035, a regulated sales requirement that 100% of medium- and heavy-duty vehicles sales be zero emission by 2040, where feasible, as well as a strategy to decarbonize emission-intensive on-road freight (Minister of Environment and Climate Change; Minister of Transport).
- To achieve Zero Plastic Waste by 2030:
  - Continue to implement the national ban on harmful single-use plastics (Minister of Environment and Climate Change);
  - Accelerate the implementation of the zero plastic waste action plan, in partnership with provinces and territories (Minister of Environment and Climate Change);
  - Ensure that producers, not taxpayers, are responsible for the cost of managing their plastic waste (Minister of Environment and Climate Change);
  - Implement and enforce an ambitious recycling target of 90%—aligned with Quebec and the European Union—for plastic beverage containers (Minister of Environment and Climate Change);
  - Introduce labelling rules that prohibit the use of the chasing-arrows symbol unless 80% of Canada's recycling facilities accept, and have reliable end markets for, these products (Minister of Environment and Climate Change);
  - Support provincial and territorial producer responsibility efforts by establishing a federal public registry and requiring producers to report annually on plastics in the Canadian economy (Minister of Environment and Climate Change);
  - Create a new infrastructure and innovation fund that will scale-up and commercialize made-in-Canada technologies and solutions for the reuse and recycling of plastics (Minister of Environment and Climate Change; Minister of Innovation, Science and Industry)

## How the Government of Canada Contributes

The Government of Canada is committed to advancing sustainable consumption and production through initiatives that reduce waste, promote sustainable management and efficient use of natural resources, and achieve sound management of chemicals and waste.

Canada continues to be recognized as an international leader on combatting plastic pollution, stemming both from its 2018 Group of 7 (G7) Presidency, and ongoing championing of the [Ocean Plastics Charter](#). The charter, now endorsed by almost 30 governments and more than 70 businesses and organizations, takes a comprehensive lifecycle approach to preventing marine plastic pollution. It lays the groundwork to ensure that plastics are designed for longer product life and increased recovery, such as through reuse and recycling. This protects the environment and keeps a valuable resource in the economy.

In support of the charter, Canada has invested \$100 million to support developing countries in their efforts to reduce plastic pollution. This includes advancing gender equity elements in plastic pollution through the World Bank ProBlue Fund and supporting the development of national plastic action plans in Indonesia, Ghana, Vietnam and Nigeria via the Global Plastic Action Partnership.

Canada also works through multilateral fora such as the G7, Group of 20 (G20), Arctic Council, Commission for Environmental Cooperation and the United Nations, as well as bilaterally with key partners, to strengthen policy, advance research and exchange information and best practices. Canada recently played a critical leadership role during the resumed fifth session of the UN Environment Assembly supporting the process that launched negotiations towards the establishment of a new legally-binding global agreement on plastics, and will advocate for ambitious action going forward.



The Government of Canada is working with provinces and territories through the [Canadian Council of Ministers of the Environment](#) to implement the Canada-wide Strategy and Action Plans on [Zero Plastic Waste](#). This work takes a life-cycle approach to addressing plastic waste and pollution. The government has adopted a comprehensive approach to meeting the target of zero plastic waste by 2030. Key actions include investing in research through Canada's Plastics Science Agenda, promoting innovation through the Canadian Plastics Innovation Challenges, and supporting sector-based solutions and community action through the Zero Plastic Waste Initiative. The government has also committed to ban select harmful single-use plastic items where there is evidence that they are found in the environment, are often not recycled, and have readily available alternatives. Finally, the government works in partnership with organizations and industries to develop solutions to reduce waste and increase the recovery of plastic waste in Canada.

These efforts build on previous initiatives of the resource efficiency and circular economy working groups under the G7 and G20, of which Canada is an active member. This includes the [G7 Resource Efficiency Alliance](#), an international platform created in 2015 with the objective of sharing best practices on resource efficiency, circular economy, sustainable material management, and the 3Rs (reduce, reuse, and recycle). To date, discussions at the Alliance have resulted in a number of guiding documents, including the [Toyama Framework on Material Cycles](#) (2016), and the [5-year Bologna Roadmap on Resource Efficiency](#) (2017).

Canada is party to several legally binding international agreements that prevent waste and litter, control the transboundary movements of hazardous and other wastes, and ensure that such wastes are disposed of in an environmentally sound way. These include the [Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal](#), the [International Convention for the Prevention of Pollution from Ships](#), the [London Convention and Protocol](#) to prevent marine pollution from dumping at sea, and the [Madrid Protocol to the Antarctic treaty to protect the Antarctic environment](#). Sustainable consumption and production is recognized by the UN Convention on Biological Diversity as a key element of safeguarding nature.

In September 2021, Canada hosted the [World Circular Economy Forum 2021](#) (WCEF2021), with the Finnish Innovation Fund, Sitra, to focus on the key actions and systemic changes needed to create the conditions for a thriving global circular economy. Canada is part of the [Leadership Group of the Platform for Accelerating the Circular Economy](#), and in early 2021 joined the [Global Alliance on the Circular Economy and Resource Efficiency](#).

The federal government is also exploring how to apply circular economy approaches in areas such as green procurement, food waste, value-retention processes, and forestry and mining, including through:

- the [Value-retention Processes Strategy](#) to encourage the remanufacturing, refurbishment, repair and reuse of products to increase the reuse of materials and reduce greenhouse gas emissions in Canada
- the [Canadian Minerals and Metals Plan](#), which envisions a circular economy where mine waste is reprocessed to improve sustainability and derive additional economic value



The [Food Policy for Canada](#), launched in 2019, includes Reduce Food Waste as one of 4 near-term action areas, supported by a \$26.3 million investment from 2019 to 2024, (including \$20 million for the [Food Waste Reduction Challenge](#)) to stimulate innovative solutions and demonstrate federal leadership on food loss and waste. The Food Waste Reduction Challenge seeks to find innovative solutions to reducing food loss and waste, thereby increasing food availability, saving consumers and businesses money, reducing greenhouse gas emissions, and strengthening our food systems.

The federal government is committed to decarbonizing Canada's transportation sector and becoming a global leader in [zero-emission vehicles](#). At the COP26 climate summit in 2021, Canada signed the Global Memorandum of Understanding for Zero-Emission Medium- and Heavy-Duty Vehicles, committing parties to working toward 100% zero-emission new truck and bus sales by 2040 and 30% by 2030. Canada signed the COP26 declaration on accelerating the transition to 100% zero emission cars and vans, which brings together national governments, states, regions, cities, vehicle manufacturers, businesses, investors and civil society all committed to working towards 100% zero-emission car and van sales by 2035 in leading markets, and no later than 2040 globally. The Government of Canada is steadfast in its conviction that the electrification of Canada's light-duty vehicles and a shift to cleaner fuels are key to decarbonizing our transportation sector.

## NORTHERN AND REMOTE WASTE MANAGEMENT

Communities in northern and remote regions face unique challenges in managing their municipal solid waste due to climate, geology, population size and distribution, socioeconomic factors, and access to services and facilities. As a result of these challenges, some existing waste management practices do not sufficiently protect human health and the environment. While the principles of environmentally sound waste management are well-documented, best practices need to be adapted to the distinct circumstances of northern and remote communities. This includes engaging the community to raise awareness on the importance of proper waste management and planning, and prioritizing infrastructure improvements, operational activities, and major waste types to reduce risks to human health and the environment, among other best practices.



## WASTE MANAGEMENT

### Targets and indicators

**Reduce the amount of waste Canadians send to disposal from a baseline of 699 kilograms per person in 2014 to 490 kilograms per person by 2030 (a 30% reduction); and to 350 kilograms per person by 2040 (a 50% reduction) (Minister of Environment and Climate Change, as federal lead in the Canadian Council of Ministers of the Environment)**

#### ➤ Solid waste diversion and disposal

This indicator tracks the total quantity and the quantity per person of non-hazardous solid waste disposed by municipal governments and businesses in the waste management industry. Total solid waste disposal per person decreased from 768 to 694 kilograms between 2002 and 2018. Note that data is updated every 2 years, and may result in a change in the baseline.

**Plastic packaging in Canada contains at least 50% recycled content by 2030, where feasible (Minister of Environment and Climate Change)**

#### ➤ Indicator under development

**By 2032, reduce single-use plastics that are found in the environment, are not recycled, and have readily available alternatives (for example, checkout bags) entering the waste stream by 4% and entering the environment as pollution by 7% (Minister of Environment and Climate Change)**

#### ➤ Indicator under development



## Implementation strategy

### ◆ Advance circular economy in Canada

Work with industry, other governments and stakeholders to advance a more circular economy in Canada to reduce emissions and waste, and promote more sustainable consumption and production.

### ◆ Deliver efficient food systems

Reduce food loss and waste at all stages of the food supply chain, helping to make our diverse food systems more efficient and more environmentally, socially and economically sustainable.

### ◆ Research innovative solutions for plastics

Undertake innovative approaches, including conducting new research and fostering domestic capacity to reduce and better manage plastic waste. Conduct studies to identify gaps, challenges and best practices related to circular economy for plastics.

## Short-term milestones

### ▣ Monitor Canada's ocean disposal sites

From 2022 to 2026, continue to monitor Canada's ocean disposal sites and ensure that 100% of monitored sites are being used sustainably.

### ▣ Measure food loss and waste

By 2023, establish a national measurement framework and baseline to identify priority areas of action to reduce food loss and waste.

### ▣ Use of mining waste to produce critical minerals

By March 2024, develop 5 technologies to recuperate critical minerals from mining waste.

## ZERO-EMISSION VEHICLES

### Targets and indicators

**100% of new light-duty vehicle sales are required to be zero-emission vehicles by 2035, with an interim sales target of at least 50% by 2030 (Minister of Transport; Minister of Environment and Climate Change)**

### ➤ Proportion of new light-duty vehicle registrations that are zero-emission vehicles

This indicator tracks the number of new zero-emission vehicles that are registered in Canada annually. In 2020, there were 55,250 new zero-emission vehicles registered in Canada, down slightly (-956) from 2019 as a result of the COVID-19 pandemic. However, zero-emission vehicle market share increased to 3.8% in 2020 from 3% in 2019 due to an overall decline in light-duty vehicle sales and the increasing popularity of zero-emission vehicles.

**100% of medium- and heavy-duty vehicles sales are zero emission by 2040, where feasible (Minister of Transport; Minister of Environment and Climate Change)**

### ➤ Proportion of new medium- and heavy-duty vehicle sales that are zero-emission vehicles

This indicator tracks the number of new zero-emission medium- and heavy-duty vehicles that are registered in Canada annually. Baseline data to come.

## Implementation strategy

### ◆ **Develop regulations that support zero-emission vehicle sales**

Develop regulations to support the sale and purchase of new zero-emission light-duty vehicles in Canada.

### ◆ **Make zero-emission vehicles more affordable and improve supply**

The federal Incentives for Zero-Emission Vehicles Program and the 100% tax write-off for business investments in eligible zero-emission vehicles both help to make these technologies more affordable and more accessible to Canadians and Canadian businesses.

### ◆ **Work with partners in the transportation sector**

Work with partners, including industry, non-governmental organizations and other levels of government on issues related to the transportation sector, such as zero-emission vehicles and the battery value chain.

## Short-term milestone

### ■ **Develop a strategy to decarbonize on-road freight**

By the end of 2022 to 2023, develop a strategy to decarbonize on-road freight.

## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 12.

### ◎ **Percentage of households who use their own bags or containers when grocery shopping**

This indicator tracks the percentage of households who report that they always or often use their own bags or containers when grocery shopping. In 2019, 76% of households surveyed reported that they always or often use their own bags or containers when grocery shopping.

### ◎ **Plastic particles in the Northern Fulmar**

Globally, it is estimated that about 8 million tonnes of plastic pollution enter the oceans every year. This plastic waste can be ingested by seabirds, such as the Northern Fulmar (*Fulmarus glacialis*), which feed at the surface of the oceans. Sampling plastic in the stomachs of seabirds provides information on plastic pollution on the surface of Canada's oceans. For the time periods between 2001 and 2018, between 28% and 63% of Northern Fulmars had 0.1 gram or more of plastic in their stomach.

### ◎ **Total waste diversion**

This indicator covers only companies and local waste management organizations that reported non-hazardous recyclable material preparation activities, refers only to that material entering the waste stream and does not cover any waste that may be managed on-site by a company or household. In 2018, the total from all sources of all diverted materials was 9,817,607 tonnes in all of Canada.





## CHAPTER 13

# TAKE ACTION ON CLIMATE CHANGE AND ITS IMPACTS

Federal Environmental Perspective on SDG 13

## The Environmental Perspective

Taking action on climate change by reducing greenhouse gas emissions and building resilience directly supports [SDG Global Indicator Framework](#) targets 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries; 13.2: Integrate climate change measures into national policies, strategies and planning; and 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

In Canada, the effects of human-caused climate change are being felt across the country. Canadians are seeing more extreme temperatures and precipitation as well as more frequent and severe wildfires, heatwaves, droughts and flooding. Meanwhile, rising sea levels, along with less-visible effects such as increased acidity and reduced levels of oxygen in the oceans, are damaging ecosystems and the vitality of traditional industries, such as fisheries.

Climate change is one of the top drivers of global biodiversity loss, which further threatens ecosystems and the beneficial services they provide to society. It affects the health of Canadians, especially the most at-risk populations such as youth, seniors, and marginalized communities. It also puts increased strain on the country's health systems during extreme weather events. Climate change has also been linked to the increased spread of invasive species and intensity of zoonotic (animal-borne) diseases.

While greenhouse gas emissions originating from Indigenous communities are low in absolute terms, estimated at less than 1 million tonnes per year across the country, or less than 1% of Canada's total per year, the impacts of climate change on Indigenous peoples are disproportionately greater than on other Canadians due to cultural, socioeconomic, historic and geographical factors. Impacts, such as wildfires, permafrost thaw, changing wildlife patterns, diminishing access to traditional food sources, and flooding, can exacerbate existing socioeconomic challenges and systemic barriers created by the legacy of colonization, core infrastructure deficits, lack of adequate housing, and other challenges and health stressors facing Indigenous peoples in Canada.

Effective and urgent action on climate change requires transitioning to a net-zero economy by reducing greenhouse gas emissions while continuing to grow prosperity, and by realizing opportunities in emerging markets such as renewable energy and clean technology. At the same time, Canada needs to adapt to the changing climate by building resilience and reducing vulnerability to foreseeable impacts in communities, regions, ecosystems, and economic sectors. Adaptation actions taken today can reduce costs and overall impacts on health and well-being. Nature-based climate solutions can also help to mitigate and adapt to climate change while providing benefits for biodiversity, nature conservation and human health.

Increasing efforts to mitigate further emissions of greenhouse gases, and adapting to changes in the climate, contributes to sustainable development and helps to ensure that future generations will be able to provide for their needs.



## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 13 are listed below.

- Deliver all policy and fiscal measures outlined in the Strengthened Climate Plan, implement the *Canadian Net-Zero Emissions Accountability Act*, and, by the end of March 2022, bring forward an updated Emissions Reduction Plan to achieve a 40 to 45% reduction in emissions by 2030 from 2005 levels (Minister of Environment and Climate Change).
- Cap oil and gas sector emissions at current levels and ensure that the sector makes an ambitious and achievable contribution to meeting 2030 climate goals, and require the oil and gas sector to reduce emissions at a pace and on a scale needed to align with the achievement of net-zero emissions by 2050, with 5-year targets to stay on track. (Minister of Environment and Climate Change; supported by the Minister of Natural Resources).
- Accelerate Canada's G20 commitment to eliminate inefficient fossil fuel subsidies from 2025 to 2023, and develop a plan to phase out public financing of the fossil fuel sector, including by federal Crown corporations (Deputy Prime Minister and Minister of Finance; Minister of Environment and Climate Change; supported by the Minister of Natural Resources).
- Champion the adoption of a global minimum standard on carbon pricing while continuing to consult with Canadians and actively engage with provinces, territories and key trading partners to inform the development of an approach to applying Border Carbon Adjustments to imports (Deputy Prime Minister and Minister of Finance).
- Make progress on methane emission reductions by developing a plan to reduce emissions across the broader Canadian economy consistent with the Global Methane Pledge and require through regulations the reduction of oil and gas methane emissions in Canada by at least 75% below 2012 levels by 2030 (Minister of Environment and Climate Change).
- Accelerate federal Greening Government commitments to electrify the entire federal fleet of light duty vehicles by 2030 (President of the Treasury Board).
- Work with the sports sector to find solutions to reduce its environmental footprint as well as better involve our athletes in the conversation on the fight against climate change (Minister of Sport and Minister responsible for the Economic Development Agency of Canada for the Regions of Quebec).

## How the Government of Canada Contributes

Canada is taking action on climate change through mitigation and adaptation initiatives that support the health and sustainability of its environment, its economy, and people.

The Government of Canada uses its federal authority to develop, implement and enforce laws, regulations, and policies relating to climate change with direct consequences for the safety and security of Canada's people, lands, and climate. For example, the [Department of the Environment Act](#), enacted in 1971, established the department responsible for preserving and enhancing the quality of the natural environment, providing meteorological services, and coordinating policies and programs to achieve environmental objectives, while the [Department of Natural Resources Act](#) assigns duties and functions for the integrated management of Canada's natural resources. The [Canadian Net-Zero Emissions Accountability Act](#) is an important addition to Canada's legislative framework.

Effectively addressing climate change requires efforts by the entire international community. Canada plays an active and constructive role in the United Nations Framework Convention on Climate Change and was a strong voice in the negotiations towards the establishment of the Paris Agreement in 2015. Canada's actions to address climate change at home and abroad are guided by the Paris Agreement goal of holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels, and pursuing efforts to limit the global temperature increase to 1.5 degrees Celsius. To achieve this long-term goal, the Paris Agreement requires countries to increase their ambition every 5 years. This is why, in July 2021, Canada announced an enhanced target committing Canada to cut its greenhouse gas emissions by 40 to 45% below 2005 levels by 2030. This emissions reduction target is enshrined in Canadian law under the *Canadian Net-Zero Emissions Accountability Act*, which received Royal Assent in June 2021.

## CANADA'S EMISSIONS REDUCTION PLAN

The Government of Canada demonstrated its commitment to achieving net-zero emissions no later than 2050 when it passed the *Canadian Net-Zero Emissions Accountability Act* in 2021. This Act enshrines Canada's climate goals for 2030 and 2050 into law and requires the government to establish an emissions reduction plan to achieve Canada's 2030 target. Canada's 2030 Emissions Reduction Plan is the first of many requirements under the *Canadian Net-Zero Emissions Accountability Act*. The Act establishes a process for target setting, planning and reporting to ensure transparency and accountability. The Act also ensures that the public will have opportunities to participate in target setting and planning. The 2030 plan will be the first emissions reduction plan established under the Act and is a key milestone on the pathway to net zero by 2050. The plan must be established by the end of March 2022, after which it will be tabled in Parliament and publicly released. Details of the plan will be incorporated into the final 2022 to 2026 Federal Sustainable Development Strategy.

While the federal government plays a leading role, work toward climate action requires close collaboration with provincial, territorial and Indigenous partners, as well as collaborative action from all sectors of society. The foundational Pan-Canadian Framework on Clean Growth and Climate Change expanded federal action on climate change. It continues to support working with provinces, territories and municipalities to implement mitigation measures to reduce carbon emissions. Many provinces and territories have committed to significant greenhouse gas emission reduction targets for both 2030 and 2050, but not all have announced a complete set of measures to reach these targets. Additional provincial and territorial measures will build on the effects of federal measures and lead to further emission reductions. The Government of Canada continues to work with provinces and territories to advance shared priorities that will further lower emissions, including on a regional and bilateral basis.

The Government of Canada has also committed to developing a [National Adaptation Strategy](#), working with provincial, territorial and municipal governments, Indigenous peoples, and other partners, including youth. The strategy will establish a shared vision for climate resilience in Canada, identify key priorities for increased collaboration, and establish a framework for measuring progress at the national level. It is intended to complement the adaptation plans of other orders of government.



During the 2021 UN Climate Change Conference (COP26), Parks Canada, along with other protected areas agencies, signed a joint statement, led by the National Parks England, regarding the contributions of protected areas to the climate change adaptation and mitigation challenges. The Joint Statement highlights the work of national parks and other protected and conserved areas around the world in addressing the dual crises of climate change and biodiversity loss while highlighting how we can work together as a global family to increase green investment in protected and conserved areas and ultimately make a significant contribution to reaching net zero.

Canada is also a strong supporter of the Montreal Protocol, which is the Multilateral Environmental Agreement that has achieved the highest greenhouse gas emissions reductions to date, and stands to avoid up to 0.4 degrees Celsius in warming by 2100 through the implementation of its Kigali Amendment on the phase-down of hydrofluorocarbons.

Finally, the Government of Canada owns 32,000 buildings across the country and, through its operations, consumes a significant amount of energy from greenhouse-gas-emitting sources. It also manages a large fleet of more than 40,000 on-road vehicles and spends billions of dollars each year on goods and services. This large environmental footprint represents an opportunity to lead the transition to a net-zero economy.



## CLIMATE CHANGE ADAPTATION

Along with reducing greenhouse gas emissions, adaptation is an essential part of the Government of Canada's response to climate change. Canadians, especially Indigenous peoples and those living in northern, coastal and remote communities, are experiencing climate impacts such as sea level rise, more frequent and severe weather events, and loss of access to traditional foods. The Government of Canada has committed to taking action to adapt to current and future climate impacts to help build resilience, reduce costs, and enhance the health, well-being, and safety of Canadians and their communities.

The Government of Canada supports Canadians in making informed, forward-looking decisions that take climate change into account. For example, the Canadian Centre for Climate Services' climate data portals provide engineers, public health professionals, urban planners and other users with access to the right data to plan and adapt to climate change. In addition, through programs such as the \$2 billion Disaster Mitigation and Adaptation Fund, the government is helping communities to build on-the-ground solutions to mitigate climate impacts such as flooding, wildfires and drought.

The government works with partners across the country to address climate-related health impacts, including extreme heat. Efforts focus on increasing adaptive capacity to reduce health risks by supporting the expansion of heat alert and response systems across Canada, and raising the awareness of heat-health risks to Canadians and health professionals through targeted promotional materials, guidance and publications.

Canada's strengthened climate plan, [A Healthy Environment and a Healthy Economy](#), builds on past progress, proposing further measures to help Canadians adapt to climate impacts and build resilient communities. In particular, the government proposes to:

- develop Canada's first National Adaptation Strategy, working with provincial, territorial and municipal governments, Indigenous peoples, and other key partners
- co-develop, on a distinction basis, an Indigenous Climate Leadership agenda which builds regional and national capacity and progressively vests authorities and resources for climate action in the hands of First Nations, Inuit, the Métis Nation, and representative organizations
- continue to provide support to Canadians and communities to respond to accelerating climate change impacts, taking into account the major areas of risk [identified](#) by the expert panel convened by the Canadian Council of Academies

## INDIGENOUS PEOPLES IN CANADA AND CLIMATE ACTION

Many Indigenous leaders have reinforced the need to take action to reduce pollution, to adapt to the impacts of climate change, and to improve the ways in which the natural environment is respected and protected. In doing so, they reinforce that leadership by Indigenous peoples is critical to achieving the foundational changes required to address climate change. The Government of Canada has committed to supporting Indigenous climate leadership and self-determined climate action, both of which are essential to advancing Canada's reconciliation with Indigenous peoples based on the recognition of rights, respect, cooperation, and partnership. Indigenous partnerships are also an important component of activities under the Natural Climate Solutions Fund initiative and other programs.



To support Indigenous climate leadership, the Government of Canada is partnering with First Nations, Inuit and the Métis Nation to set an agenda for climate action and a framework for collaboration. Recognizing Indigenous climate leadership means investing in the agency of Indigenous peoples and communities, supporting Indigenous-led and delivered solutions, equipping Indigenous peoples with equitable resources, and ensuring appropriate access to funding to implement self-determined climate action. Indigenous climate leadership includes a rich history of Traditional Knowledge systems, building up community resilience and the capability to adapt, particularly in remote, northern and coastal communities.

## CLIMATE CHANGE MITIGATION AND ADAPTATION

### Targets and indicators

**Achieve 40 to 45% greenhouse gas emission reductions below 2005 levels by 2030, and achieve net-zero greenhouse gas emissions by 2050 (Minister of Environment and Climate Change)**

#### 📌 Greenhouse gas emissions

[This indicator](#) tracks Canada's national emissions of greenhouse gases over time using data from Canada's National Inventory Report, which is based on internationally established guidelines produced by the Intergovernmental Panel on Climate Change. Emissions estimates are presented at the national level (total emissions and emissions intensity), by economic sector, and by region. According to data published in the 2021 National Inventory Report, Canada emitted a total of 730 megatonnes of carbon dioxide equivalent (Mt CO<sub>2</sub> eq) in 2019, the most recent year for which data is available. Recalculations are performed annually on Canada's previously reported greenhouse gas emissions estimates to reflect updates to source data and estimation methodology. As such, previous emissions estimates may be adjusted in future reporting years.

### ➤ **Greenhouse gas emissions projections**

This indicator tracks Canada's emissions projections related to the 2030 target expected from the results of federal policies, programs, and investments. Based on data published in 2021, Canada's emissions in 2030 were projected to be 503 Mt CO<sub>2</sub> eq under Canada's strengthened climate plan. This represents about a [31% reduction below Canada's 2005 emissions](#). Recalculations are performed regularly on Canada's previously reported greenhouse gas emissions projection scenarios to reflect updates to source data and estimation methodology. As such, emissions projections may vary over time.

## **Achieve a 25% reduction in national black carbon emissions by 2025, compared to 2013 levels (Minister of Environment and Climate Change)**

### ➤ **Black carbon emissions**

This indicator represents Canada's national emissions of black carbon from Canada's Black Carbon Inventory Report. Emissions are presented as total anthropogenic emissions by sector. Based on the 2021 inventory, black carbon emissions in Canada have decreased overall by 5.4 kilotonnes (15%) since 2013. Recalculations are performed annually on Canada's previously reported black carbon emissions estimates, including the base year, to reflect updates to source data and estimation methodology.

## **Implementation strategy**

### ◆ **Implement the Canadian *Net-Zero Emissions Accountability Act***

In June of 2021, the *Canadian Net-Zero Emissions Accountability Act* became law, formalizing Canada's target to achieve net-zero emissions by the year 2050. The Act establishes the 2030 greenhouse gas emissions target as Canada's Nationally Determined Contribution (40 to 45% below 2005 levels by 2030) under the Paris Agreement, and requires the Minister of Environment and Climate Change to set the subsequent 2035, 2040 and 2045 targets at least 10 years in advance. It also requires a series of plans and reports to support accountability and transparency and help ensure Canada hits all of its milestones on the way to its goal of achieving net-zero emissions by the year 2050.

### ◆ **Implement Canada's 2030 Emissions Reduction Plan**

The 2030 Emissions Reduction Plan will outline the measures and strategies that the Government of Canada intends to take to achieve the 2030 greenhouse gas emissions reduction target of 40 to 45% below 2005 levels. More details on the plan will be available mid-2022 and will be incorporated into the final 2022 to 2026 Federal Sustainable Development Strategy.

### ◆ **Support natural climate solutions in Canada as part of the Strengthened Climate Plan**

Through the Natural Climate Solutions Fund and other programs, make progress toward unlocking the power of Canada's natural landscape to increase carbon sequestration and storage, reduce emissions in the atmosphere and increase resilience to the impacts of climate change. This will be achieved through activities such as planting trees, restoring and enhancing grasslands, peatlands, wetlands, and croplands, and by improving agricultural land management to fight climate change, while achieving environmental and human well-being co-benefits.

### ◆ **Continue to implement the Pan-Canadian Framework on Clean Growth and Climate Change**

The Pan-Canadian Framework on Clean Growth and Climate Change is the 2016 plan developed with the provinces and territories and in consultation with Indigenous peoples to meet emissions reduction targets, grow the economy, and build resilience to a changing climate. It includes a pan-Canadian approach to pricing carbon pollution and measures to achieve emissions reductions across all sectors of the economy, such as



leveraging ingenuity across the country through the Low Carbon Economy Fund. It aims to drive innovation and growth by increasing technology development and adoption to ensure Canadian businesses are competitive in the global low-carbon economy. It also includes actions to advance climate change adaptation and build resilience to climate impacts across the country, such as enhancing access to climate information and support through the Canadian Centre for Climate Services.

◆ **Continue to implement the Strengthened Climate Plan**

In December of 2020, the Government of Canada introduced [A Healthy Environment and a Healthy Economy](#)—Canada’s strengthened climate plan. Building on the Pan-Canadian Framework, this plan contains 64 strengthened and new federal policies, programs and investments to cut pollution and build a stronger, cleaner, and more resilient and inclusive economy. It will do this through 5 pillars: cutting energy waste; providing clean, affordable transportation and power; pricing carbon pollution; building a clean industrial advantage; and embracing nature-based solutions to support healthier and resilient communities. Enhancing local and regional capacity and solutions to prepare for climate extremes and changes is key.

◆ **Adopt an integrated climate lens for all federal decision making**

Develop and implement an Integrated Climate Lens that assesses climate mitigation and climate adaptation, economic/employment and GBA Plus implications of all major federal policies and programs.

## Short-term milestones

▣ **Establish a 2030 Emissions Reduction Plan**

By the end of March 2022, pursuant to the *Canadian Net-Zero Emissions Accountability Act*, establish Canada’s 2030 Emissions Reduction Plan that includes a description of the key measures the Government of Canada intends to take to achieve the 2030 greenhouse gas emissions reduction target of 40 to 45% below 2005 levels.

▣ **Ensure a strengthened price on carbon pollution is in place in Canada**

By 2023, all 13 provinces and territories have in place a price on carbon pollution that meets the updated minimum national stringency criteria (federal benchmark).

▣ **Implement evidence-based measures to protect health from extreme heat in health regions**

By 2026, 80% of health regions will have implemented evidence-based adaptation measures to protect health from extreme heat.

▣ **Release a national adaptation strategy for Canada**

In 2022, Canada will release the first national strategy on climate change adaptation. While many adaptation actions are local or regional, a national adaptation strategy will help Canada respond to the shared reality of climate change by bringing together and building on the resources, knowledge, and expertise of Canada’s adaptation community.

# FEDERAL LEADERSHIP ON GREENHOUSE GAS EMISSIONS REDUCTIONS AND CLIMATE RESILIENCE

## Target and indicators

**The Government of Canada will transition to net-zero carbon and climate-resilient operations by 2050 (President of the Treasury Board of Canada)**

The [Greening Government Strategy](#) outlines specific measures to achieve net-zero and climate-resilient operations that are presented below. The Greening Government Strategy also includes additional measures to address climate change and reduce environmental impacts beyond carbon such as waste, water, and biodiversity. Departments are responsible for implementing the Greening Government Strategy, and may report progress as appropriate in their departmental sustainable development strategy.

### ➤ **Percentage change in energy-related greenhouse gas emissions from facilities and conventional fleets relative to fiscal year 2005 to 2006**

This indicator estimates the Government of Canada's energy-related greenhouse gas emissions from facilities and conventional fleets over time. Emissions are presented in total and by emitting federal organization.

### ➤ **Percentage change in energy-related greenhouse gas emissions from national safety and security fleets relative to fiscal year 2005 to 2006**

This indicator estimates the Government of Canada's greenhouse gas emissions from national safety and security fleets over time. Emissions are presented in total and by emitting federal organization.

## Implementation strategy

### ◆ **Implement the Greening Government Strategy through measures that reduce greenhouse gas emissions, improve climate resilience, and green the government's overall operations**

Departments may report on these and other Greening Government Strategy commitments via their departmental sustainable development strategies.

### ◆ **Apply a greenhouse gas reduction life-cycle cost analysis for major building retrofits**

All major building retrofits, including significant energy performance contracts, require a greenhouse gas reduction life-cycle cost analysis to determine the optimal greenhouse gas savings. The life-cycle cost approach will use a period of 40 years and a carbon shadow price of \$300 per tonne.

### ◆ **Assess and reduce risks posed by climate change to federal assets, services and operations**

Develop a better understanding of the risks posed by the impacts of climate change and extreme weather events to federal assets, services and operations across the country and ensure that actions to reduce climate change risks to assets, services and operations are implemented.

### ◆ **Modernize through net-zero carbon buildings**

All new federal buildings (including build-to-lease and public-private partnerships) will be net-zero carbon unless a life-cycle cost-benefit analysis indicates net-zero-carbon-ready construction.

◆ **Purchase low-carbon intensity fuels for air and marine fleets**

Between fiscal year 2023–2024 and fiscal year 2030–2031, a cumulative total of at least 300 million litres of low-carbon intensity fuels will be purchased for federal air and marine operations.

◆ **Purchase zero-emission vehicles**

Fleet management and renewal will be optimized with the objective that the conventional light-duty on-road fleet comprises at least 80% zero-emission vehicles by 2030, including battery electric, plug-in hybrid, and hydrogen fuel cell vehicles.

◆ **Strengthen green procurement criteria**

Develop criteria that address greenhouse gas emissions reduction for goods and services that have a high environmental impact; ensure the criteria are included in procurements; and support green procurement, including guidance, tools and training for public service employees.



## Short-term milestones

### ■ Achieve total clean electricity use in federal real property

By 2025, use 100% clean electricity in federal real property including producing or purchasing renewable electricity.

### ■ Develop national safety and security operational fleet decarbonization plans

By 2023, national safety and security fleet departments will develop operational fleet decarbonization plans that outline how they will reduce their emissions from operations in line with the overall 2050 target.

### ■ Develop a zero-carbon, climate-resilient office leasing federal portfolio

By 2023, Public Services and Procurement Canada will develop a zero-carbon, climate-resilient office leasing portfolio plan.

### ■ Identify and incorporate awareness of climate-change-related risks into federal planning

From 2022, and at regular intervals thereafter, all federal departments continue to identify significant climate related risks and take action to reduce those risks. For example, the risks and potential risk reduction strategies are integrated into business continuity or departmental risk planning processes, or equivalent.

### ■ Reduce greenhouse gas emissions in federal real property and conventional fleet

By 2025, reduce greenhouse gas emissions from real property and conventional fleet by 40% from 2005 to 2006 levels.

### ■ Transform the federal light-duty fleet

Each year, 75% of purchases of new light-duty, unmodified on-road fleet vehicles will be zero-emission vehicles or hybrids.

## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 13.

### 🕒 Greenhouse gas concentrations

This indicator shows the trends in concentrations for carbon dioxide and methane. Concentrations are presented on monthly and annual bases for Canada. It also includes global annual average concentrations of these greenhouse gases.

#### Carbon dioxide

- Globally, annual average carbon dioxide concentrations increased by 22%, from 338.9 parts per million (ppm) to 412.4 ppm between 1980 to 2020.
- In 2020, the average concentration of carbon dioxide in Canada was 415.0 ppm, up from 412.3 ppm in 2019.



## Methane

- Globally, annual average methane concentrations increased by 13%, from 1,670 parts per billion (ppb) to 1,879 ppb between 1986 to 2020.
- In 2020, the average concentration of methane in Canada was 1,965 ppb, up from 1,952 ppb in 2019 in Canada.

### 🌐 **Land-based greenhouse gas emissions and removals**

This indicator provides estimates of Canada's emissions and removals of greenhouse gases from managed lands, including agricultural lands, wetlands, settlements, and managed forests.

- Between 1990 and 2019, estimates of land-based greenhouse gas emissions and removals ranged from net removals of 96 megatonnes of carbon dioxide equivalent in 1992 to net emissions of about 259 megatonnes of carbon dioxide equivalent in 2015.
- In 2019:
  - natural disturbances (such as wildfires and severe insect infestations) accounted for emissions of about 157 megatonnes of carbon dioxide equivalent
  - human activities (such as timber harvesting and agricultural activities) accounted for emissions of 9.9 megatonnes of carbon dioxide equivalent

### 🌐 **Proportion of municipal organizations that factored climate change adaptation into decision-making processes**

This indicator tracks the count of municipal organizations that factored climate change adaptation into decision-making processes, by core infrastructure assets, urban and rural, and population size. In 2018, 2,010 municipalities factored climate change adaptation into their decision-making processes (52% of municipalities). The proportion of municipalities who had factored climate change adaptation into their organization's decision-making process ranged from 28% for public transit infrastructure to 50% for stormwater infrastructure.

### 🌐 **Temperature change in Canada**

This indicator shows the yearly and seasonal surface air temperature departures from the year 1948.

- In Canada, the national average temperature for the year 2020 was 1.1 degree Celsius (°C) above the 1961 to 1990 reference value.
- From 1948 to 2020, there is a trend in annual average temperature departures, showing 1.8°C of warming over that period.
- Annual average temperatures were consistently above or equal to the reference value from 1993 onward.

### 🌐 **Sea ice in Canada**

This indicator provides information on the area of sea in Canada covered by ice during the summer season. It also presents trends in total sea ice area and multi-year sea ice area.

- Between 1968 and 2020, summer sea ice area in the Northern Canadian Waters declined at a rate of 7.5% per decade.
- The multi-year sea ice area has declined by 8.3% per decade over the period from 1968 to 2020.

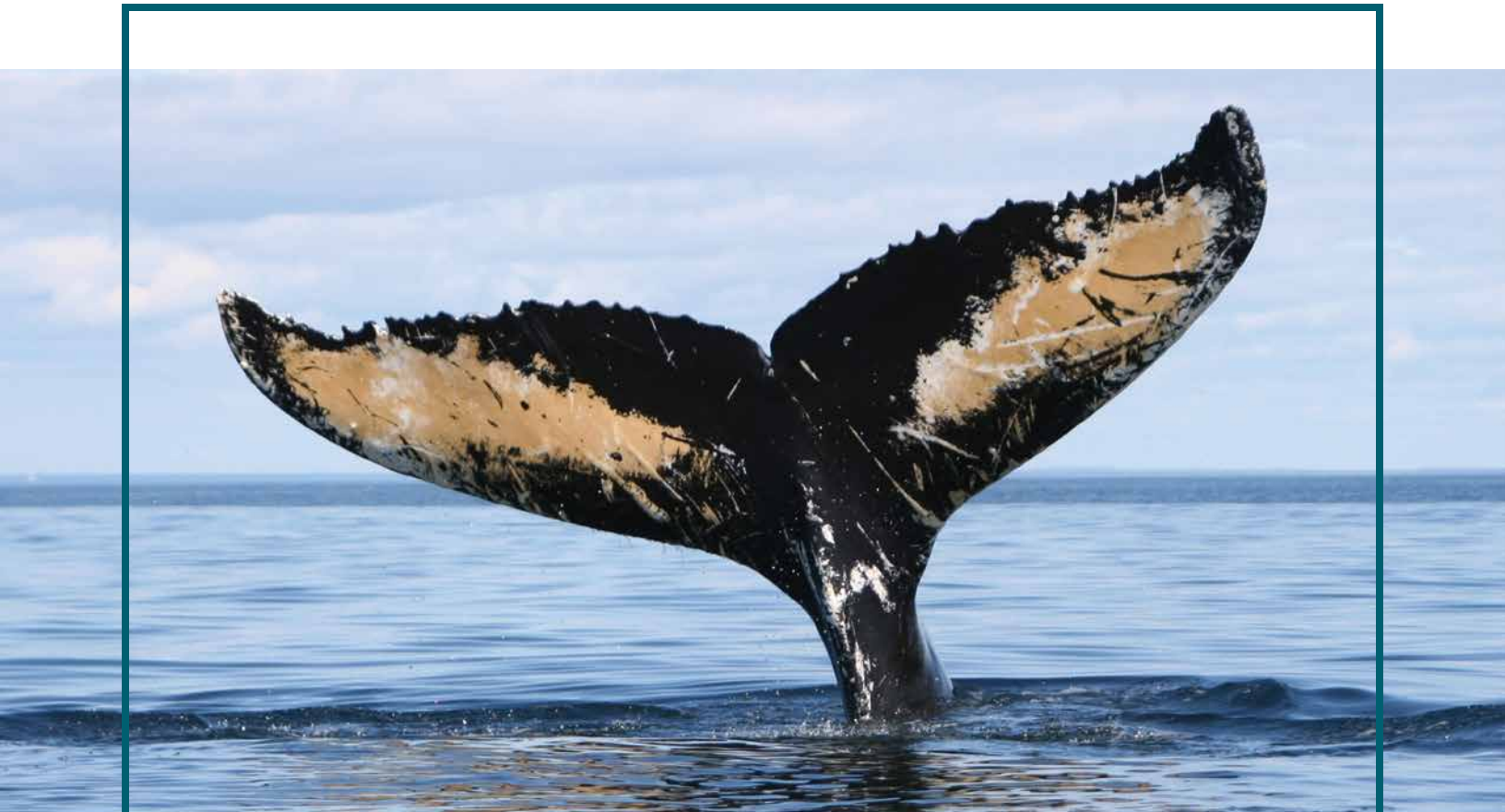
### ☉ **Snow cover**

This indicator reports spring snow cover extent and annual snow cover duration. Snow cover extent is presented for the spring months of April, May and June.

- Since the early 1970s, snow cover extent has decreased significantly in Canada during the months of May and June.
- The number of days with snow for the year 2019 were above average for most of Eastern Canada, the Prairies and Nunavut; however, a substantial part of Yukon and smaller areas of the Northwest Territories and along the Pacific coast experienced below-average snow cover duration.

### ☉ **Adaptation indicator in development (Statistics Canada)**

### ☉ **Extreme heat indicator in development (Environment and Climate Change Canada)**



## CHAPTER 14

# CONSERVE AND PROTECT CANADA'S OCEANS

Federal Environmental Perspective on SDG 14

## The Environmental Perspective

Recognizing that Canada's coasts and oceans are facing pressures, the focus of this chapter is on conserving and protecting Canada's oceans. This focus directly supports [SDG Global Indicator Framework](#) targets 14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution; 14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans; 14.4: By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce

maximum sustainable yield as determined by their biological characteristics, and 14.5: By 2020, conserve at least 10% of coastal and marine areas, consistent with national and international law and based on the best available scientific information.

Climate change is [increasing water levels and temperatures](#)—and the loss of marine habitat. With rising sea levels, ocean acidification and thinning sea ice, life is becoming more vulnerable in many coastal, northern and Indigenous communities.

Other issues affecting our oceans include increased physical and noise disturbances from marine shipping, human use and development, pollution from plastics, oil spills and other contaminants, underwater noise and the spread of invasive alien species. Growing pressure on fish stocks also poses current and future challenges for fisheries management.

Oceans are not only home to an immense web of marine life, they also generate half of the oxygen we breathe, act as thermostats to regulate the Earth's temperature, and support most of our planet's biodiversity. Dependence on [ocean resources and services](#) will increase as populations grow. Coastal regions, in particular, are the most populated areas and are under increasing pressure from activities such as excessive fishing, marine shipping, and expansion of coastal cities.

As plastics have become part of everyday lives around the world, managing their life cycle becomes critical. Each year, 8 million tonnes of plastic pollution enter the oceans from land, globally. It is found on shorelines, in the water, and even in wildlife. Abandoned, lost or otherwise discarded fishing gear, also known as ghost gear, are major contributors to the plastic debris problem. Recent studies indicate that ghost gear may make up to 70% of all macro-plastics in the ocean by weight.

Canada is an ocean-rich country, with the world's longest coastline linking 3 different oceans—Atlantic, Arctic, and Pacific. Canada's oceans are home to many species of marine life, including many at-risk species such as 42 distinct populations of whales. These whales and other marine species at risk are vital to marine ecosystems, and central to ecotourism in coastal communities. They include iconic but endangered species such as the Southern Resident killer whale, North Atlantic right whale and St. Lawrence Estuary Beluga.

Conserving coastal and marine areas helps address these environmental challenges, as do actions Canadians are taking to ensure healthy, resilient, sustainably managed and productive fisheries and ecosystems over the long term. As of 2018, Canada's "blue economy" accounted for approximately \$36.1 billion annually in gross domestic product and close to 300,000 jobs.



## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 14 are listed below.

- Implement the Pacific Salmon Strategy and make new investments and develop a conservation strategy to restore and rebuild wild Atlantic salmon populations and their habitats (Minister of Fisheries, Oceans and the Canadian Coast Guard).
- Continue to protect and restore our oceans and coasts by:
  - Renewing and expanding the Coastal Restoration Fund to restore aquatic habitats (Minister of Fisheries, Oceans and the Canadian Coast Guard);
  - Expanding the Ghost Gear Program to continue efforts by fishers and others to clean up lost and abandoned fishing gear and ocean plastics (Minister of Fisheries, Oceans and the Canadian Coast Guard);
  - Launching the next phase of the Oceans Protection Plan to continue efforts to deliver world-leading marine safety systems, increase protection for marine species and ecosystems and create stronger partnerships with Indigenous and other coastal communities, while strengthening marine research and science (Minister of Transport; Minister of Fisheries, Oceans and the Canadian Coast Guard); and
  - Supporting community shoreline and oceans plastic cleanup efforts (Minister of Environment and Climate Change).
- Modernize the *Oceans Act* to explicitly consider climate change impacts on marine ecosystems and species in regional ocean management, ensuring the Act provides for measurable progress indicators and objectives, and create a national, interdisciplinary working group focused on climate-resilient ocean conservation planning (Minister of Fisheries, Oceans and the Canadian Coast Guard).
- Build on the Ocean Plastics Charter by working with leading countries on the development of a new global agreement on plastics (Minister of Environment and Climate Change).

## How the Government of Canada Contributes

Protecting Canada's oceans and marine ecosystems from the threats of pollution, climate change and overfishing is critical to their long-term health. For the Government of Canada, one of the most important initiatives is the establishment of marine protected areas and other effective area-based conservation measures, including marine refuges. Marine protected areas are defined geographical spaces in the water that are dedicated and managed in an effort to conserve and protect unique areas, ecologically significant species and their habitats, and representative marine environments.

The Government of Canada has adopted [Marine Spatial Planning](#) as the way forward in integrated ocean planning and management to address threats to marine ecosystems. By working with provinces, territories, and Indigenous partners in a collaborative and transparent way, Marine Spatial Planning supports the protection of healthy marine ecosystems while fostering sustainable economic growth.

The [Fisheries Act](#) provides the legislative basis for the sustainable management of fisheries in Canada. Modernized in 2019, the *Fisheries Act* now provides stronger protections and modern safeguards for fish and their habitat. The [Sustainable Fisheries Framework](#) also supports sustainable fisheries, establishing a precautionary approach to fisheries management. The Government of Canada has also made important investments for protecting the biodiversity of marine species, including the Oceans Protection Plan and the [Whales Initiative](#). These initiatives support the recovery and protection of marine species, including endangered whales, from anthropogenic threats such as physical and acoustic disturbances, lack of prey, and [contaminants](#). Through the Oceans Protection Plan, the Government of Canada has improved the marine safety system, and preserved and restored marine ecosystems through collaboration with Indigenous and coastal communities.

The Government of Canada is developing a forward-looking Blue Economy Strategy. It seeks to grow Canada's ocean and freshwater economy, and support the long-term sustainable growth of Canada's fish and seafood sector. It will ensure Canada is positioned to succeed in the fast-growing global ocean sectors of the blue economy and advance reconciliation, conservation and climate objectives.

Reducing plastic waste, marine litter and plastic pollution is a priority for the Government of Canada. Canada plays an active role in international efforts to address marine plastic pollution, including the [Ocean Plastics Charter](#) and the [Global Ghost Gear Initiative](#). The Government of Canada has committed to promote Canadian technologies for reducing ocean plastics. Canada has become a global leader with the first funding program in the world dedicated to the reduction of ghost gear. The Ghost Gear Program was launched in 2020, and has supported 49 projects domestically and internationally working to reduce ghost gear.

Canada is engaged in efforts to address illegal, unreported and unregulated (IUU) fishing and ensure the sustainable management of shared fish stocks in the high seas, through active participation in policy development and compliance and enforcement activities at 7 regional fisheries management organizations. Canada established itself as a leader through its implementation of the 2018 G7 Charlevoix Blueprint for Healthy Oceans, committing nearly \$12 million to build capacity worldwide to combat IUU fishing by developing new surveillance technologies and improving information and intelligence sharing, particularly with vulnerable developing states through initiatives such as the Dark Vessel Detection project.

At the COP 26 climate summit in 2021, Canada committed an extra \$9 million in support for the global Ocean Risk and Resilience Alliance to support work in helping developing island nations and coastal countries face the challenges of climate change and another \$6 million for the Global Fund for Coral Reefs to support coral reef conservation efforts.

## INDIGENOUS PEOPLES AND MARINE PROTECTION

Indigenous peoples in Canada have strong historical and cultural ties to Canada's coasts and oceans. They also exercise fisheries-related Aboriginal and Treaty rights, and have co-management roles, as part of the nation-to-nation, Inuit-Crown and government-to-government basis relationship. Given their unique knowledge of and relationship to their environment, Indigenous peoples work with the Government of Canada to establish and manage marine protected areas.

On August 1, 2019, Tuvaijuittuq, meaning "the place where ice never melts," became the first *Oceans Act* marine protected area established via Ministerial Order under the *Oceans Act*. It provides up to 5 years of protection to over 300,000 square kilometres of Arctic water off the coast of Ellesmere Island, Nunavut. Tuvaijuittuq is a testament to a successful collaboration between the Government of Canada, the Government of Nunavut and the Qikiqtani Inuit Association. Future assessment of the region to support longer-term protection will include science and traditional and local knowledge such as Inuit *Qaujimagatuqangit*, a source of information passed down from generation to generation.



## OCEAN PROTECTION AND CONSERVATION

### Target and indicator

**Conserve 25% of marine and coastal areas by 2025, and 30% by 2030, from 13.8% recognized as conserved as of the end of 2020 in support of the commitment to work to halt and reverse nature loss by 2030 in Canada, and achieve a full recovery for nature by 2050 (Minister of Fisheries, Oceans and the Canadian Coast Guard)**

#### 📌 Canada's conserved areas

This indicator tracks the proportion of Canada's marine and coastal areas conserved through marine protected areas and [other effective area-based conservation measures](#), including marine refuges. Conserved areas are lands and waters that are managed for the long-term conservation of biodiversity and ecosystems. As of the end of 2020, 13.8% of Canada's marine and coastal area was recognized as conserved.

## Implementation strategy

### ◆ **Build knowledge of coastal and marine ecosystems and marine protected areas**

Support or conduct scientific research and analysis to build knowledge of Canada's coasts and oceans.

### ◆ **Implement new protection standards in marine protected areas**

Continue to implement the protection standards for all new federal marine protected areas, which prohibit oil and gas activities, mining, certain kinds of ocean dumping, and bottom trawling.

### ◆ **Protect and manage marine and coastal areas**

Continue to establish and manage [Oceans Act marine protected areas](#), [national marine conservation areas](#), [marine national wildlife areas \(with marine components\)](#), other [federal protected areas](#) with marine components, and [other effective area-based conservation measures](#), in accordance with Canada's rights and jurisdiction under international law. Continue to pursue Marine Spatial Planning as a tool to promote collaborative decision making with partners such as Indigenous peoples and provincial and territorial governments, to ensure the sustainable use of marine resources. Also continue to use Marine Spatial Planning for implementing *Oceans Act* Marine Environmental Quality regulatory and non-regulatory management tools to address significant stressors in the marine environment.

### ◆ **Reduce marine litter and support the Canada-wide Strategy on Zero Plastic Waste**

Continue to contribute to the implementation of the Canadian Council of Ministers of the Environment's Canada-wide Strategy on Zero Plastic Waste through actions outlined in its Phase 2 Action Plan. This plan aims to reduce plastic waste and pollution generated by aquatic activities, and address plastics in the marine environment through capture and clean-up. Continue to fill knowledge gaps on the contribution of sea-based activities to marine plastic litter and deliver on the Ocean Plastics Charter by working with international, provincial, territorial and regional partners to develop and implement approaches to manage and reduce marine litter in Canada, including fishing gear.

### ◆ **Use legislation and regulations to protect coasts and oceans**

Use legislation and regulations and implement those already in place to protect coasts and oceans.

### ◆ **Work with partners to protect and restore coastal and marine ecosystems**

Forge opportunities and foster ongoing collaboration with domestic and international partners to protect and restore marine ecosystems.





### Short-term milestones

#### ▣ Further develop Canada's Ghost Gear Program

- By 2024, obtain data related to reported lost and recovered, abandoned, lost or otherwise discarded fishing gear in Canadian waters and use this information to further develop the Ghost Gear Program and inform fisheries management measures.
- By 2025, establish and grow the Ghost Gear Program in the Canadian Arctic and obtain baseline data on lost gear and fishing efforts for the region.
- From 2022 to 2026, continue to mitigate environmental risks and increase the sustainability of Canadian fisheries by carrying out targeted retrieval efforts of abandoned, lost or otherwise discarded fishing gear ("ghost gear") in areas of high risk. These priority areas are identified based on the presence of species at risk, fishing density, and use of high-risk gear types.

#### ▣ Patrol for marine spills

From 2022 to 2026, continue to conduct sustained, coordinated and intensive aerial pollution surveillance over all waters under Canadian jurisdiction through the National Aerial Surveillance Program and ensure that 100% of the assigned pollution patrols are conducted as planned.

# OCEAN SUSTAINABILITY

## Target and indicators

**By 2026, at least 55% of Canada's key fish stocks are in the Cautious and Healthy zone (Minister of Fisheries, Oceans and Canadian Coast Guard)**

### ➤ Status of key fish stocks

This indicator reports the status of key fish stocks. Federal scientists use a variety of scientific methods to assess fish stock levels and assign them a stock status zone (Healthy, Cautious or Critical) by comparing the size of the stocks to reference points. If there is insufficient information to be able to determine which one of the 3 stock zones the stock is in, the status is uncertain. Stock status is an important element of the precautionary approach. Of the 176 key stocks assessed in 2019:

- 52 stocks (30%) were in the Healthy zone
- 29 stocks (16%) were in the Cautious zone
- 25 stocks (14%) were in the Critical zone
- 70 stocks (40%) could not be classified and have an uncertain status

### ➤ Sustainable fish harvest

This indicator compares harvest levels with established harvest limits. These limits are based on the best available scientific evidence. This indicator classifies stocks based on 3 elements: stocks harvested at or below a removal reference, stocks harvested at or below an approved harvest level, and stocks harvested above a removal reference or approved harvest level. It is one measure of fishing pressure on wild fish stocks. Of the 176 key stocks assessed in 2019:

- 166 stocks (94%) were harvested at sustainable levels
- 10 stocks (6%) were harvested above approved levels

From 2012 to 2019, the percentage of overharvested stocks has been consistently low. By 2027, Canada aims to have all key fish and invertebrate stocks managed and harvested at levels considered sustainable.

## Implementation strategy

### ◆ Build knowledge to support sustainable fisheries

Improve knowledge of fisheries resources, their productivity and factors affecting them to support sustainable fisheries management.

### ◆ Implement policies for sustainable fisheries

Implement policies that establish sustainable fisheries in Canada and promote an ecosystem approach to fisheries management.

### ◆ **Support the recovery and protection of Canada's endangered whales**

Limit hazards to the North Atlantic right whale, Southern Resident killer whale, and St. Lawrence Estuary Beluga by implementing programs and measures that reduce risk of entanglement, protect vital food sources, minimize the impacts from vessels, including collisions and underwater noise, provide real-time whale surveillance, and decrease contaminant exposure.

### **Short-term milestones**

#### ▣ **Regulate fish stocks provisions**

By 2026, set fish stocks in regulation, thus making them subject to the Fish Stocks Provisions in the recently amended *Fisheries Act*. By setting key stocks in regulation and making them subject to the Fish Stocks Provisions, there will be binding legal obligations to manage these stocks sustainably.

#### ▣ **Implement the Sustainable Fisheries Framework**

From 2022 to 2026, continue implementing Sustainable Fisheries Framework policies in Canada's fisheries. This will help ensure that all key fish and invertebrate stocks are managed and harvested sustainably, legally and taking into account ecosystem factors. The framework provides the foundation for an ecosystem approach to fisheries management.





## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 14.

### 🕒 **Eelgrass in Canada**

This indicator tracks compiled information on the distribution of eelgrass sites in Canada, including historical observations. Eelgrass is a common seagrass species in Canadian coastal waters and has been described as an ecosystem engineer because it physically changes its environment, creating habitat and resources for other species. Changes in eelgrass growth and distribution can have significant effects on coastal marine and estuarine (where fresh water meets sea water) ecosystems. As of 2020, eelgrass was widespread on the Pacific, Atlantic and Arctic (Hudson Bay) coasts of Canada. Most of the mapped eelgrass sites in James Bay (Hudson Bay) were in recovery following major declines.

### 🕒 **Marine pollution spills**

The Government of Canada actively monitors ships in Canadian waters to help prevent pollution in our oceans and coasts as marine pollution spills can have long-term negative environmental and economic consequences. This indicator reports the volume of marine pollution spills detected by aerial surveillance. Spills come from ship operations, intentional dumping and accidents. From 2010 to 2021, the volume of marine pollution spills was typically greater in coastal areas than in offshore areas. The average volume of offshore spills from 2012 to 2021 has been less than 11% of all detected spills.

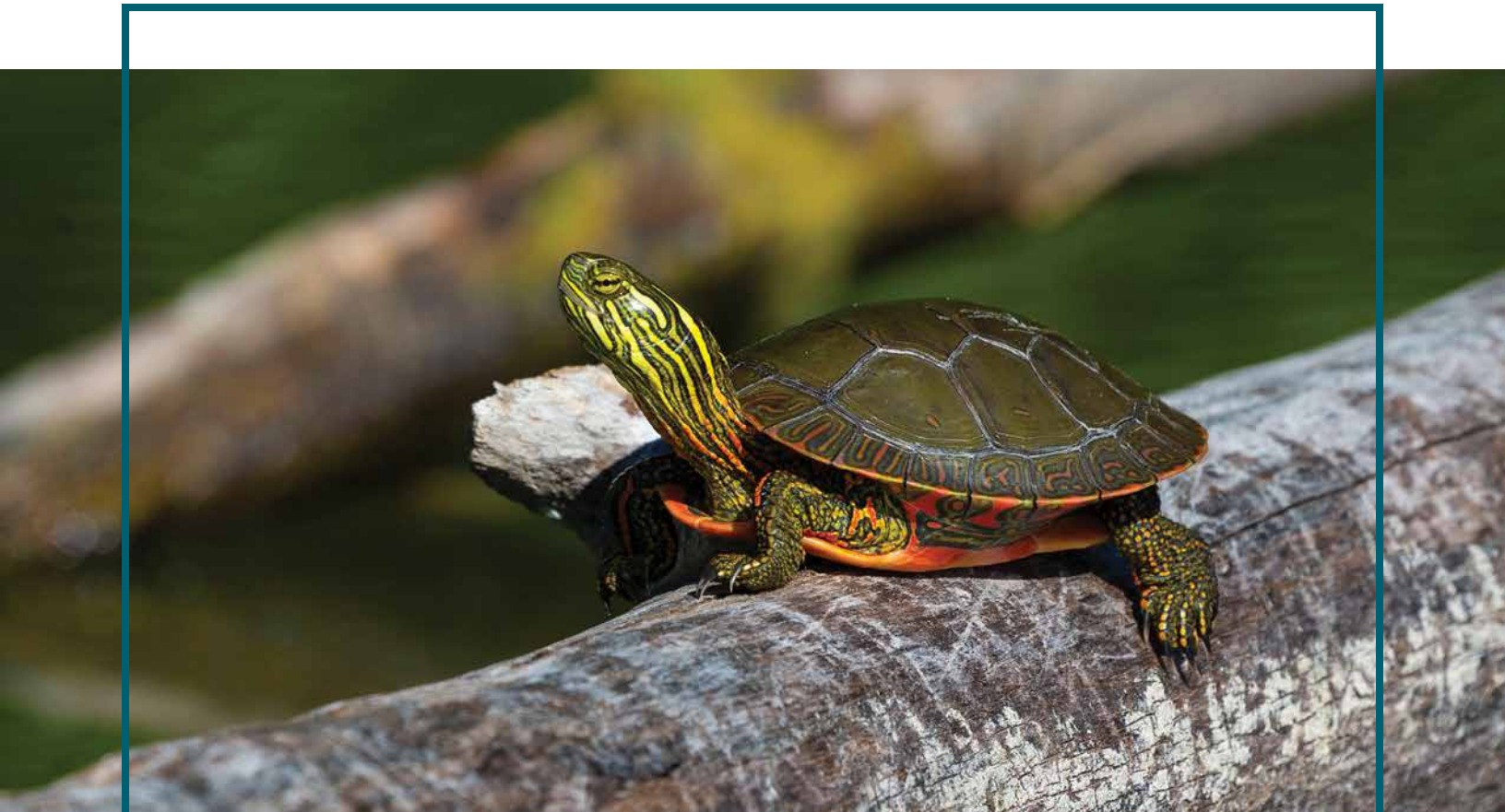
### 🕒 **Monitoring disposal at sea**

The indicator reports the number of monitored ocean disposal sites that show no evidence of marine pollution from disposal activities. Monitoring of the approved disposal sites is conducted to verify that assumptions made during the permit review and site selection process were correct. Since 2007, there has been no evidence of marine pollution from disposal activities at monitored ocean disposal sites.

### 🕒 **Shellfish harvest area quality**

This indicator tracks the proportion of harvest areas that is classified approved or conditionally approved and the proportion of samples with fecal coliform levels less than 43 most probable number per 100 millilitres as a coarse measure of the quality of marine coastal water. The indicator reflects the quality of, and the extent of bacterial contamination in, marine coastal waters where shellfish are harvested. In 2018, 68% of Canada's classified shellfish harvest areas were classified as approved or conditionally approved for harvest for human consumption. This has remained relatively consistent since 2010.





## CHAPTER 15

# PROTECT AND RECOVER SPECIES, CONSERVE CANADIAN BIODIVERSITY

Federal Environmental Perspective on SDG 15

## The Environmental Perspective

As the second-largest country in the world, Canada is one of the few countries that still has relatively large, healthy natural ecosystems. Understanding that economic development, combined with a changing climate, are putting growing pressure on our natural environment, this chapter focuses on protecting and recovering species and conserving Canadian biodiversity.

This focus directly supports [SDG Global Indicator Framework](#) targets 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services; 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded

forests and substantially increase afforestation and reforestation globally; 15.3: By 2030, combat desertification, restore degraded land and soil; 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species; and 15.8: By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.

Canada's forests, wetlands, prairies and tundra provide habitat that all organisms, including humans, need to thrive. Conserving these natural spaces helps promote biodiversity and maintain the ecosystem services that we rely on for our well-being, such as irrigating and pollinating crops and vegetation, controlling floods, and filtering air and water. Managing for resilient forests and other ecosystems also helps to mitigate climate change by sequestering and storing carbon, and improved land use can increase carbon sequestration and reduce greenhouse emissions associated with ecosystems and their use.

Canada's lands and fresh water are an integral part of Canadians' natural and cultural heritage. In particular, many natural areas hold cultural, spiritual, and socioeconomic significance for Indigenous peoples and support life-sustaining activities such as hunting, fishing and gathering. Nature provides physical and mental health and other well-being benefits for all Canadians.

Healthy ecosystems also contribute to our economy, including through nature-based tourism. For example, Canada's national parks and national historic sites generate millions of dollars annually and provide thousands of jobs for local communities. Recreational fisheries, many of which are in inland lakes, rivers and streams, also contribute several billion dollars to Canada's economy.

Canada has a strong commitment to sustainable forest management. [Forests](#) play a central role—culturally, spiritually and economically—in the lives of many Indigenous communities across Canada. According to the 2016 census, 12,000 Indigenous people work in the forest sector, representing about 7% of the sector's workforce.

## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 15 are listed below.

- Ensure Canada meets its goals to conserve 25% of our lands and waters by 2025 and 30% of each by 2030, working to halt and reverse nature loss by 2030 in Canada, achieve a full recovery for nature by 2050 and champion this goal internationally. Ensure that this work remains grounded in science, Indigenous knowledge and local perspectives (Minister of Environment and Climate Change; Minister of Fisheries, Oceans and the Canadian Coast Guard).
- Work with First Nations, Inuit and Métis partners to support new Indigenous Guardians programs and establish new Indigenous Guardians Networks, and support Indigenous communities to build capacity to establish more Indigenous Protected and Conserved Areas (Minister of Environment and Climate Change).
- Help protect old growth forests, notably in British Columbia, by advancing a nature agreement with B.C., establishing a \$50 million B.C. Old Growth Nature Fund, and ensuring First Nations and Métis, local communities and workers are partners in shaping the path forward on nature protection (Minister of Natural Resources; Minister of Environment and Climate Change).



## How the Government of Canada Contributes

Land and water-use change, climate change, pollution, natural resource use and exploitation, and invasive alien species threaten Canada's rich biodiversity and natural legacy. To combat these threats and protect Canada's landscapes, natural resources and wildlife populations, the Government of Canada is working with partners to advance the conservation of nature, develop conservation action plans, leverage nature-based solutions to climate change, and prevent the introduction of and manage federally-regulated invasive alien species. The government also works with partners to incorporate and reflect Indigenous Knowledge alongside western science. The conservation and management of some wildlife species require coordination and collaborative action across international boundaries.

Budget 2021 committed to invest \$4.1 billion for nature protection, including \$2.3 billion over 5 years for Canada's Enhanced Nature Legacy, to continue supporting nature conservation measures across the country, including Indigenous leadership in conservation. Taken together with \$1.3 billion for the Nature Legacy Initiative announced in 2018, this represents the largest investment in nature conservation in Canada's history.

The Government of Canada is committed to preserving Canada's nature legacy of lands and inland fresh waters as well as its oceans. This includes strengthening protection and recovery of species at risk and their habitat through improved timelines for implementation of provisions for species at risk; advancing reconciliation through enhanced support of Indigenous leadership in conservation; and supporting healthy natural infrastructure and increased access to nature.



These initiatives will be further supported by plans to create new national wildlife areas, national marine conservation areas, national urban parks, ecological corridors and Indigenous Protected and Conserved Areas. Working collaboratively and in partnership with provinces, territories, Indigenous peoples, local jurisdictions, and the private and non-profit sectors will be an essential element of this work.

Enhancing the implementation of the *Species at Risk Act* is a priority for the Government of Canada. The Act ensures legal protection for individuals of federally listed species at risk, preventing them from becoming extirpated or extinct, and providing for their recovery.

The Government of Canada continues to implement the Pan-Canadian Approach to Transforming Terrestrial Species at Risk Conservation in Canada in partnership with most provinces and territories, Indigenous peoples, and other partners. This approach focuses collaborative action on a national set of priority places, species, sectors, and threats across Canada. Since 2018, federal, provincial and territorial governments have:

- Collectively established 11 federal, provincial, territorial priority places covering nearly 30 million hectares in habitats and ecosystems with high concentrations of species at risk and other biodiversity. Actions implemented in priority places will support the protection and recovery of hundreds of species at risk and other biodiversity.
- Identified 6 priority ecologically important species (Barren-ground Caribou; Greater Sage-grouse; Peary Caribou; Wood Bison; Woodland Caribou, Boreal population; and Woodland Caribou, Southern Mountain population) that are distributed over 567 million hectares of Canada. Recovering priority species and their habitats will address multiple barriers to recovery and provide co-benefits for species throughout their ranges.
- Initiated dialogue for 3 priority sectors (agriculture and the forest sector, as well as urban development). Collaborative action in these sectors will address common broad-based threats to multiple species and promote sustainable practices.

Further, the Pan-Canadian Approach is guided by commitments for increased collaboration between partners, evidence-based decision making, and improved monitoring and reporting. Together, the Pan-Canadian Approach is yielding results through strengthened partnerships, greater returns on investments, and increased co-benefits for biodiversity and ecosystems.

For aquatic species, the development of a Pan-Canadian Approach for the conservation of Aquatic Species at Risk is under development to guide multi-species, place-based and threat-based approaches to species at risk recovery and protection. Since 2018, as part of the Canada Nature Fund for Aquatic Species at Risk, 7 freshwater priority places have been identified across Canada, as a focus for targeted recovery and protection stewardship actions. In these areas, 36 projects have been funded that target 70 populations of aquatic species at risk. In 2021, 2 additional priority places in the Arctic and Southern Newfoundland were identified, along with additional Canada Nature Fund for Aquatic Species at Risk funding to support stewardship actions for aquatic species at risk in those areas.

Work is underway on a shared, national 5-year strategic and operational plan to support and implement the goals identified in a Pan-Canadian Approach to Wildlife Health. The government is also working to promote the implementation of the One Health approach to address emerging risks from the human-animal-environment interface.

The government sustains the efforts of Canadians to improve the health of Canada's natural environments and their respective species through transfer payment programs such as the Habitat Stewardship Program, Canada Nature Fund for Aquatic Species at Risk, and Coastal Restoration Fund. The Government of Canada also encourages and supports organizations within the federal family to conserve and protect species at risk on federal lands through support programs such as the Critical Habitat Interdepartmental Protection program.



Canada is working with other Parties to the [UN Convention on Biological Diversity](#) to develop a post-2020 Global Biodiversity Framework that is expected to be adopted in 2022. Following the adoption of a new Framework, Canada will develop a domestic implementation plan, in collaboration with provincial, territorial, and Indigenous governments, and stakeholders. Canada is also working with Parties of the UN Convention to Combat Desertification. Through these international, multi-lateral environmental conventions of the UN, Canada continues to raise global ambition for environmental protection.

## **POST-2020 BIODIVERSITY FRAMEWORK NEGOTIATIONS**

International negotiations of the UN Convention on Biological Diversity Post-2020 Global Biodiversity Framework are underway and will continue until spring 2022. Canada aims for an ambitious and pragmatic post-2020 global biodiversity framework, to accelerate and intensify global efforts to halt biodiversity loss. Following adoption of the Post-2020 Global Biodiversity Framework, Canada will be expected to develop a national implementation plan covering all aspects of nature conservation and sustainable use within 2 years. Relevant elements will be reflected in the Federal Sustainable Development Strategy at a later date.

Canada, through its work with the Arctic Council working group on the Conservation of Arctic Flora and Fauna, collaborates with other Arctic States and with representatives from Indigenous peoples in the Arctic Council, to address and support policy and decision making pertaining to Arctic biodiversity. The working group's objectives are to develop common responses to biodiversity issues of importance to the Arctic, including monitoring and research, and to communicate findings to promote best practices to ensure the sustainability of the Arctic's living resources. The Arctic Council is the leading multilateral forum through which Canada advances its Arctic interests internationally.

At COP26, Canada joined 128 nations in a pledge to halt and reverse forest loss and land degradation by 2030 while delivering sustainable development and promoting an inclusive rural transformation. The countries signed the Glasgow Leaders' Declaration on Forest and Land Use backed by USD\$19.2 billion in public and private funding to help developing nations restore degraded land. In addition, Canada, along with 11 other countries, endorsed the UK-led Global Forest Finance Pledge that aims to provide collectively USD\$12 billion for forest-related climate finance from 2021 to 2025.

The Government of Canada is taking action to support sustainable forest management and an innovative Canadian forest sector. For example, the government has re-established the Canadian Council of Forest Ministers Climate Change Working Group to support provincial and territorial collaboration to advance climate change adaptation and mitigation through sustainable forest management. Meanwhile, the federal government supports innovation in Canada's forest sector through programs such as the Forestry Innovation Transformation Program, and supports increased Indigenous participation in ecosystem-based economic programs through the Indigenous Forestry Initiative.

## INDIGENOUS ENVIRONMENTAL STEWARDSHIP

Indigenous communities are among the first to face the impacts of climate change and biodiversity loss due to their lifestyles being closely connected to the land and reliant on subsistence harvesting. Changes in the distribution of plants and wildlife place pressures on Indigenous food systems and traditional hunting, fishing, and gathering activities. Traditional Indigenous territories and reserve lands are particularly important for species at risk and biodiversity, and Indigenous peoples have stewarded these environments and ecosystems for generations. Indigenous communities have been stewards of the land since time immemorial and they have managed or co-managed significant portions of lands in a sustainable way. Working with and learning from Indigenous partners is a key component of both reconciliation and biodiversity conservation.



## CONSERVATION OF LAND AND FRESH WATER

### Targets and indicators

**Conserve 25% of Canada's land and inland waters by 2025, working toward 30% by 2030, from 12.5% recognized as conserved as of the end of 2020 in support of the commitment to work to halt and reverse nature loss by 2030 in Canada, and achieve a full recovery for nature by 2050 (Minister of Environment and Climate Change)**

#### 📌 Canada's conserved areas

This indicator tracks the percentage of Canadian land and inland waters recognized as conserved. Conserved areas are managed to achieve the long term conservation of biodiversity, maintaining ecosystems together with their functions and supporting healthy populations of wild species. They include protected areas as well as other effective area-based conservation measures. As of the end of 2020, 12.5% of Canada's land and fresh water was recognized as conserved, including 11.7% in protected areas.

**Establish 10 new national parks and 10 new national marine conservation areas (NMCAs) in the next 5 years, working with Indigenous communities on co-management agreements for these national parks and NMCAs (Minister of Environment and Climate Change)**

#### 📌 Establishment of new national parks and national marine conservation areas

This indicator tracks the key steps in the establishment process for new national parks and national marine conservation areas.

Key steps:

- a. number of signed memoranda of understanding (MOUs) launching feasibility assessments
- b. number of signed MOUs agreeing that a proposal is feasible, to a boundary and the application of interim protection measures, and the launch of negotiations
- c. number of signed formal establishment agreements resulting in the establishment and operation of new sites

As of January 2022, 47 national parks and national park reserves and 5 national marine conservation areas and reserves have been established.

### **Between 2023 and 2026, maintain Canada's annual timber harvest at or below sustainable wood supply levels (Minister of Natural Resources)**

#### **📌 Sustainability of timber harvest**

This indicator compares the amount of timber harvested with the maximum sustainable harvest, also known as the sustainable wood supply. Between 1990 and 2019, timber harvest in Canada fell below the estimated sustainable wood supply. The most recent data available shows that 139.8 million cubic metres of industrial roundwood was harvested in 2019, well below the sustainable wood supply of 218.1 million cubic metres.

#### **Implementation strategy**

##### **◆ Better understand lands and forests**

Continue to conduct scientific research and engage Indigenous peoples to better understand protected areas and managed forests and support sustainable land-use planning, including forest management planning and collecting Indigenous Knowledge towards an enhanced understanding of Indigenous forest management practices.

##### **◆ Conserve natural spaces**

Accelerate the establishment of new protected and conserved areas, including by developing and implementing nature agreements with provinces and territories, and through the protection of freshwater spaces; support Indigenous Guardians and the creation of Indigenous Protected and Conserved Areas; enhance Canadians' access to nature; prevent terrestrial and aquatic species from disappearing; and create jobs in nature conservation and management.

##### **◆ Promote participation in Canada's forest sector and support the transition to a sustainable economy**

Provide support to increase participation in Canada's forest sector, including from Indigenous communities. Support could include programs such as the Indigenous Forestry Initiative and programs related to the transition to a sustainable economy and forest adaptation and mitigation through sustainable forest practices.

##### **◆ Work with domestic and international partners**

Provide opportunities for collaboration with provinces and territories, Indigenous communities, stakeholders, and organizations, and work with domestic and international partners to implement joint initiatives in support of better managing and restoring natural areas, and conserving Canada's biodiversity.

##### **◆ Work with Indigenous peoples**

Work with Indigenous peoples to protect and conserve species, lands and waters, including through Indigenous Guardians, the development of Indigenous Protected and Conserved Areas, and through co-management initiatives.

## Short-term milestones

### ■ Designate ecological corridors

By 2026, designate ecological corridors to improve ecological connectivity between protected and conserved areas.

### ■ Establish new protected areas

By 2025, establish 6 new national wildlife areas, finalize the designation of 7 national wildlife areas, and establish at least 5 new marine national wildlife areas.

### ■ Finalize Nature Agreements

By 2023, finalize Nature Agreements with participating provinces and territories.

### ■ Make progress on Canada's commitment to area-based conservation

By 2024, make demonstrable progress on Canada's commitment to protect 25% of Canada's land and inland waters by 2025, and to work toward 30% by 2030.

## SPECIES PROTECTION AND RECOVERY

### Targets and indicators

**By 2026, increase the percentage of species at risk listed under federal law that exhibit population trends that are consistent with recovery strategies and management plans to 60%, from a baseline of 42% in 2019 (Minister of Environment and Climate Change; Minister of Fisheries, Oceans and the Canadian Coast Guard)**

#### ➤ Species at risk population trends

This indicator tracks whether the population and distribution trends of species at risk are consistent with the objectives in final recovery strategies or management plans. As of 2021, of the 141 species for which trends could be determined:

- 58 species (41%) showed progress towards their population and distribution objectives
- 67 species (48%) did not show progress
- 16 species (11%) showed mixed evidence, meaning that some information suggests improving trends, but there is also some evidence of decline

**By 2026, maintain or improve the proportion of species that are ranked as secure that remain secure or apparently secure from a baseline of 80% in 2015 (Minister of Environment and Climate Change)**

#### ➤ Status of wild species

This indicator summarizes the conservation status of 29,848 species in 34 species groups. 16,078 native species were assigned a national extinction risk level. As of 2015:

- 80% or 12,833 species were ranked as secure or apparently secure
- 10% or 1,586 species were vulnerable
- 10% or 1,534 species were imperiled or critically imperiled
- less than 1% or 125 species were presumed extirpated or possibly extirpated (no longer found in Canada)



**By 2030, increase the percentage of migratory bird species whose population sizes fall within an acceptable range—neither too low nor too high—to 70% from a baseline of 57% in 2016 (Minister of Environment and Climate Change)**

➤ **Population status of Canada’s migratory birds**

This indicator tracks the proportion of bird species listed in the *Migratory Birds Convention Act, 1994* whose populations fall within acceptable bounds and provides a snapshot of the general state of birds in Canada. In 2016, of the 358 bird species with adequate monitoring data:

- 57% had populations within acceptable bounds
- waterfowl and forest birds were the 2 groups with the highest proportion of populations within acceptable bounds (74% and 63%, respectively)
- only 12% of grassland and aerial insectivore birds had populations within acceptable bounds
- 12% of waterfowl had populations above acceptable bounds

**By 2030, Indigenous peoples participate in 90% of migratory bird monitoring and research projects (Minister of Environment and Climate Change)**

➤ **Participation of Indigenous peoples in migratory bird monitoring and research projects**

This indicator tracks the percentage of migratory bird monitoring and research projects in which Indigenous peoples participate. Baseline data to come.





## Implementation strategy

### ◆ Deliver enhanced conservation action

Make significant, targeted investments, including under the renewed Canada Nature Fund, that drive partnerships, co-investment, innovation and improved conservation outcomes, with a focus on priority places, species, sectors and threats.

### ◆ Develop a pan-Canadian approach to wildlife health with partners

With partners, focus efforts and resources on priorities and address discrepancies in capacity across Canada, particularly in rural and northern regions, and for emerging threats related to climate change.

### ◆ Enhance foundational knowledge of species, habitats and ecosystems with partners

Carry out research and share information to protect and recover wildlife species using available open data and enhance monitoring of species at risk, to allow for adaptive management.

◆ **Establish a principle of no net loss of biodiversity**

Develop and integrate into federal decision making (for example, management of land, authorizations and funding), a policy framework to balance effects on biodiversity resulting from human activities that aims at achieving No Net Loss and, wherever possible, achieving a Net Gain in biodiversity.

◆ **Implement, innovate and modernize the regulatory and policy framework and tools to protect species at risk, other fish and fish habitat and migratory birds**

Continue to assess and list species and develop timely recovery strategies and action plans under the *Species at Risk Act* and to promote compliance with the *Species at Risk Act* as well as the *Migratory Birds Convention Act, 1994*, and the *Fisheries Act*. Continue to advance new policy and program approaches to modernize and improve the implementation of the *Species at Risk Act* and the *Migratory Birds Convention Act, 1994*. Continue to pursue bilateral agreements with provinces and territories for the management of species at risk.

◆ **Implement the aquatic and terrestrial pan-Canadian approaches to transforming species at risk conservation in Canada with partners**

With provincial, territorial and Indigenous partners, as well as stakeholders, strategically focus efforts and resources on priority places, species, sectors and threats to enable multi-species and ecosystem-based approaches to achieve better outcomes for species at risk.

◆ **Prevent, detect, and respond to, control and manage invasive alien species**

Collaborate with provincial and territorial governments, Indigenous peoples, local jurisdictions, non-governmental organizations, and international partners, to increase awareness about invasive alien species, to better understand their costs and impacts, and to prevent, detect, respond to, control and manage them. This includes the work of organizations and systems such as the Canadian Plant Health Council, the Canadian Plant Health Information System, the federal-provincial-territorial Canadian Council of Fisheries and Aquaculture Ministers and the National Aquatic Invasive Species Committee.

◆ **Uphold international commitments related to wildlife**

Work with international partners to protect and conserve species at risk and fulfill Canada's obligations under international agreements

◆ **Work with partners to implement and modernize technology for monitoring international wildlife trade to better detect invasive alien species, vectors of diseases and endangered species at Canada's international borders**

To prevent the introduction of invasive alien species to Canada via international trade, modernize the capture, digitization, storage and retrieval of import documentation, including taxonomic names of species, to enable enforcement, monitoring and reporting on international wildlife trade.



## Short-term milestones

### ■ Collaborate on protection and recovery actions for terrestrial species at risk

- By March 2023, 50% of actions identified in Parks Canada-led *Species at Risk Act* action plans are fully implemented.
- By 2024, in collaboration with provincial, territorial and Indigenous partners, as well as stakeholders, improve timelines for listing species and expand protection and recovery actions for 300 terrestrial species at risk within priority places and for priority species with co-benefits for migratory birds and biodiversity.

### ■ Develop and implement a no net loss policy framework

By 2024, a policy framework to balance effects to biodiversity that aims at achieving No Net Loss in federal decision making is developed and implemented.

### ■ Develop conservation action plans

By the end of 2022, in collaboration with provincial, territorial and Indigenous partners, as well as stakeholders, develop 3 draft conservation action plans for terrestrial species at risk with the agriculture, forest and urban development sectors to achieve better conservation outcomes for species at risk and enhance sector sustainability.

### ■ Enhance protection and recovery actions for aquatic species at risk

By 2026, take steps toward enhanced protection and recovery of 50 aquatic species and their critical habitat through assessment, listing, stewardship actions, enforcement, monitoring, and reporting; enabling the participation of Indigenous peoples in the protection and recovery of aquatic species at risk; and enabling the stewardship actions of partners with contributions funding through the Canada Nature Fund for Aquatic Species at Risk.

### ■ Increase the proportion of listed bird species

By the end of 2022, the proportion of bird species listed in the *Migratory Birds Convention Act, 1994* and with population sizes within an acceptable range has increased by more than 2 percentage points over 2013.

### ■ Monitor invasive alien species

Between 2022 and 2026, continue to identify, prioritize, and monitor invasive alien species to determine where priority actions are required, improve actions, develop best practices to address them and future threats.

### ■ Partner with provinces and territories

By 2024, maximize efforts for the protection and recovery of species at risk and their habitats through partnerships with provinces and territories, through various mechanisms including Nature Agreements.



## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 15.

### 🕒 **Canadian forest area**

This indicator tracks the extent of Canada's forests. As of 2019, Canada had 362 million hectares of forest. Forest area in Canada is stable, with very few areas deforested or afforested. Since 1990, less than 0.5% of Canada's forest lands have been converted to a non-forest land use.

### 🕒 **Canadian species index**

This indicator shows whether monitored vertebrate species have increasing or decreasing population size trends over time. This provides an integrated measure of the condition of our environment. Between 1970 and 2016:

- the population size of monitored vertebrate species declined by 4% on average
- the population size of monitored mammal and fish species decreased by 42% and 21% on average, respectively



### 🕒 **Changes in the status of wildlife species at risk**

This indicator tracks changes in the status of wildlife species at risk when they are reassessed. Changes in status over time may help determine whether conditions for these wildlife species are improving. As of 2021, of the 514 wildlife species at risk that were reassessed, and for which sufficient data were available to determine if there had been a change in status:

- 89 wildlife species (17%) were in a higher risk category
- 96 wildlife species (19%) were in a lower risk category
- 329 wildlife species (64%) showed no change in status

### 🕒 **Deforestation and afforestation**

This indicator tracks land use changes from forest to other land uses. Between 1990 and 2018, Canada's already-low deforestation rate declined from 64,000 hectares per year to about 34,300 hectares per year. While the annual area of afforestation is very small relative to the total forest area of Canada, efforts are underway to increase capacity to track the amount of afforestation occurring under urban and rural planting initiatives.

### 🕒 **Ecological integrity of national parks**

This indicator summarizes the state (good, fair, poor) and trend (improving, stable, declining) of ecosystems within 43 national parks. As of March 2021, the ecological integrity of 82% of park ecosystems has been maintained or improved since 2016. Most park ecosystems are stable (68%), while 14% are improving and 17% are declining.

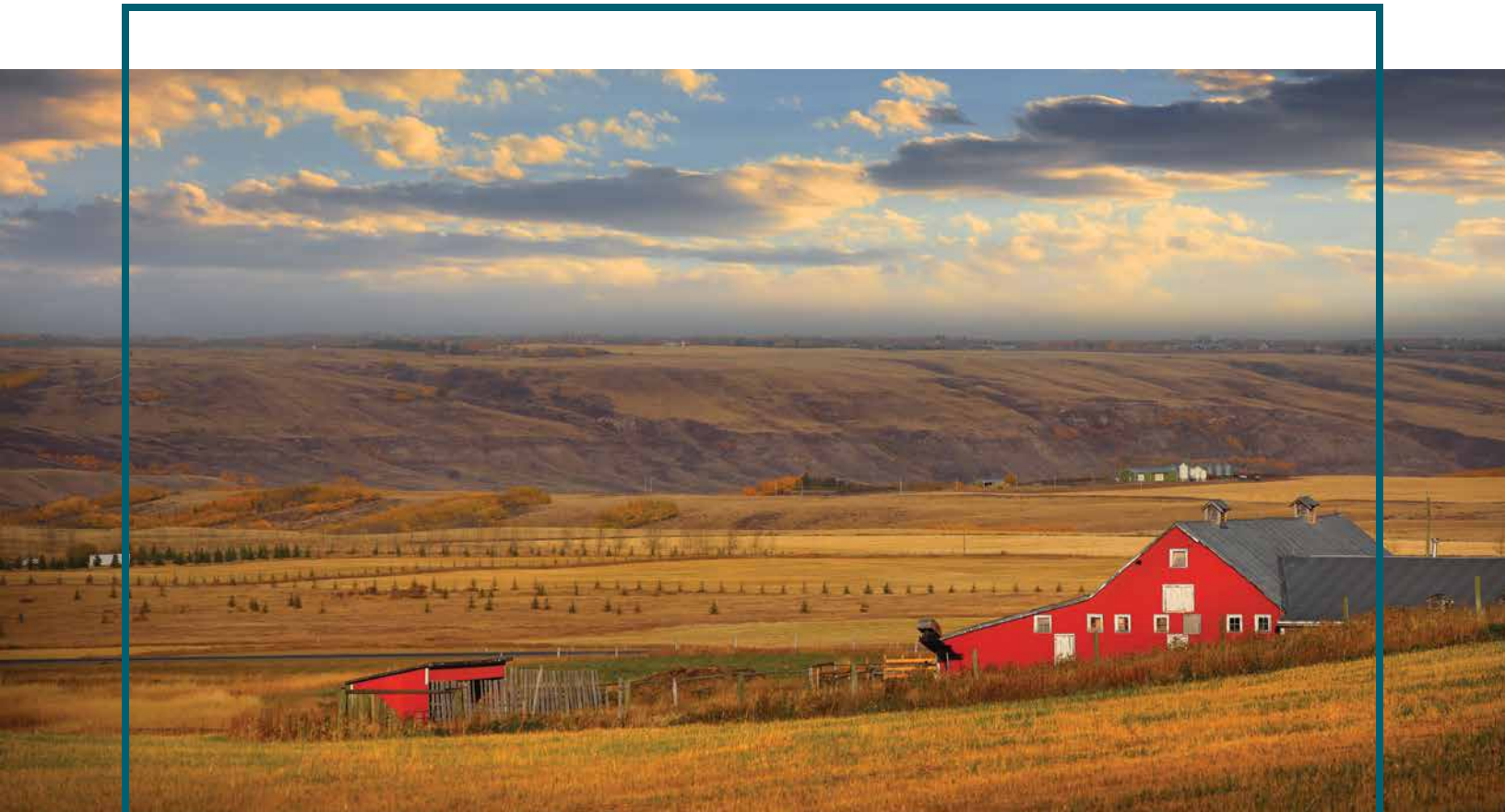
### 🕒 **Extent of Canada's wetlands**

This indicator tracks the extent of Canada's wetlands. Wetlands are among Earth's most productive ecosystems. They provide numerous ecosystem services and support many species, including species at risk. Canada has about 1.29 million square kilometres of wetlands, covering 13% of Canada's terrestrial area. Where wetlands have been monitored, they generally show declines in extent.

### 🕒 **Trends in Canada's bird populations**

This indicator tracks the average population trends of various groups of native Canadian bird species. From 1970 to 2016, the trends in bird species groups was varied:

- waterfowl and birds of prey increased by 150% and 110%, respectively
- shorebirds, grassland birds, and aerial insectivores decreased by 40%, 57% and 59%, respectively
- wetland birds, seabirds, forest birds and all other birds showed little to moderate change



## CHAPTER 16

# ENFORCE ENVIRONMENTAL LAWS, MANAGE IMPACTS, AND EVALUATE SUSTAINABLE DEVELOPMENT ACTIVITIES

## Federal Environmental Perspective on SDG 16

### The Environmental Perspective

Given that strong and effective institutions are critical to protecting and enhancing the natural environment in the face of threats such as climate change, air and water pollution, illegal and unreported fishing, and increasing levels of natural resource extraction and infrastructure development, this chapter's environmental perspective concentrates on enforcing environmental laws and managing impacts. This perspective was drawn from the [SDG Global Indicator Framework](#) targets 16.3: Promote the rule of law at the national and international levels and ensure equal access to justice for all; 16.7: Ensure responsive, inclusive, participatory and representative decision-making at all

levels; and 16.b: Promote and enforce non-discriminatory laws and policies for sustainable development.

Strong institutions, including the legislative, executive and judicial branches of government, serve a number of vital functions, and their role in solving interrelated environmental challenges is more important than ever. Through representative government, the legislative branch ensures that all citizens have a voice in shaping the law and debating its effects on the environment and on society at large. The executive branch develops new policies, regulations, funding and enforcement programs to respond to ongoing and emerging environmental challenges. The judiciary helps interpret environmental legislation (including through case law where relevant), and ensures that the law is accessed, applied and enforced in a fair and impartial manner.

Other institutions make important contributions. Independent, science-based institutions are needed to predict and mitigate the effects of proposed policies, programs, and economic development projects on the environment, on human health, and on communities, including marginalized populations. Institutions such as the Office of the Auditor General (and their international equivalents) play an important direct oversight and accountability role, while academia, not-for-profit organizations, and think tanks provide indirect oversight and accountability, making sure that governments and other institutions are implementing effective programs and spending public funds responsibly, while credibly and transparently reporting on results. Not-for-profit organizations and a free and independent press provide other avenues for the public to engage in dialogue on issues related to sustainable development.

## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. A selected commitment related to Sustainable Development Goal 16 is listed below.

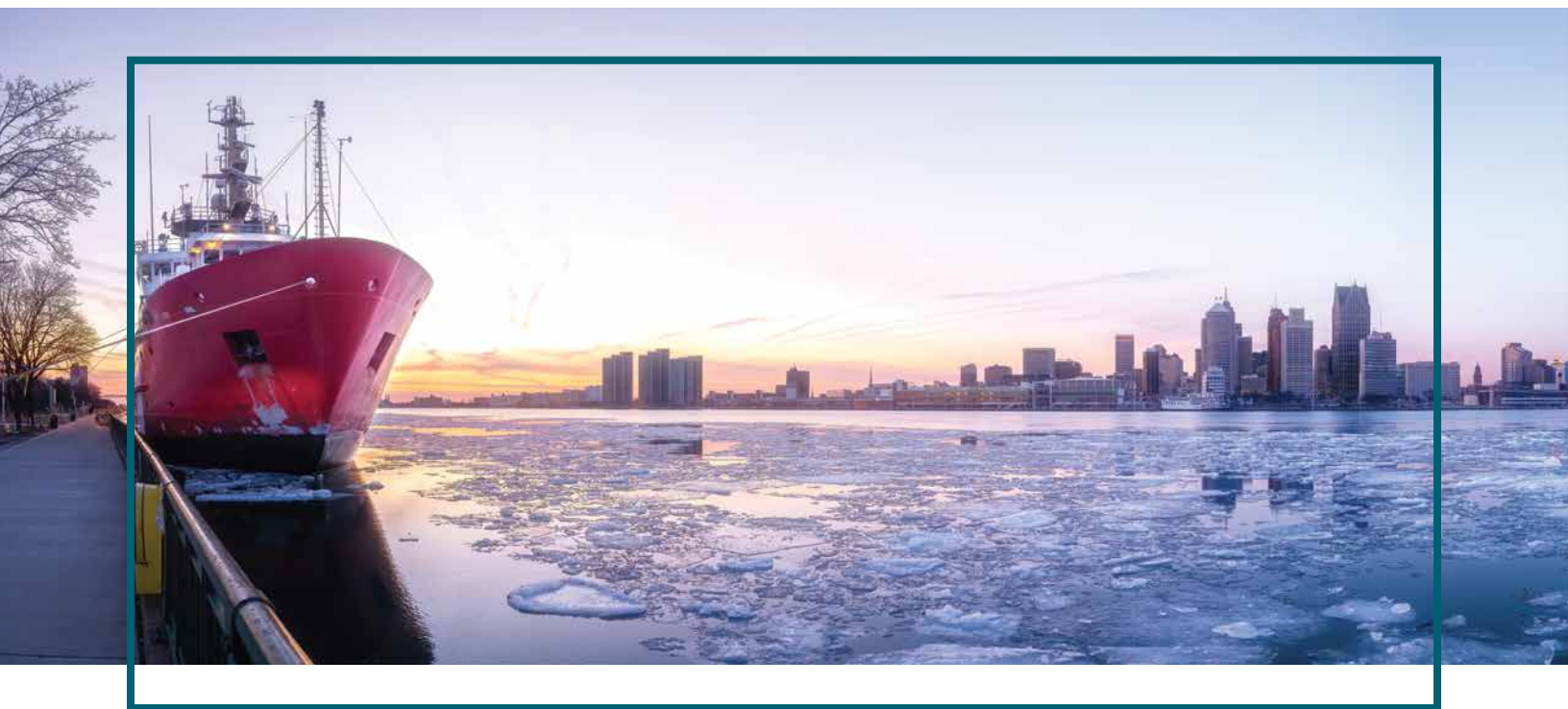
- Revive the Law Commission of Canada so it can provide independent advice on law reform needed on the complex legal issues Canadians face, such as systemic racism in the justice system, advancing reconciliation with Indigenous peoples, issues around climate change and rapid technological shifts in the world (Minister of Justice and Attorney General of Canada).

## How the Government of Canada Contributes

The Government of Canada supports transparent, accountable and inclusive institutions through legislation and regulatory requirements that contribute to evidence-based decision making and strong environmental enforcement, reporting, and oversight, both domestically and internationally.

Through legislation, the Government of Canada sets the legal parameters for compliance and enforcement of environmental laws and regulations. Several federal departments are involved in enforcing the environmental provisions of key legislation. Environment and Climate Change Canada undertakes monitoring and enforcement for air and water pollution and hazardous materials under the [Canadian Environmental Protection Act, 1999](#), for the various provisions of the [Species at Risk Act](#) and the [Convention on Migratory Birds](#), and for the pollution prevention provisions of the [Fisheries Act](#), among others. Fisheries and Oceans Canada enforces all other aspects of regulatory compliance with the [Fisheries Act](#). Finally, Transport Canada enforces the marine pollution prevention provisions of the [Canada Shipping Act](#), while the Canadian Coast Guard provides support through marine pollution monitoring and response. These departments also promote accountability and transparency by reporting on environmental compliance and enforcement outcomes in their departmental results reports.





In cases where offenders are convicted of an environmental crime, sentenced offenders may be subject to a fine or a court order. Fourteen federal statutes automatically direct penalties to the [Environmental Damages Fund](#) (EDF), and 5 federal statutes contain discretionary clauses to do so. In accordance with federal policies, and aligning (where possible) with court recommendations, the EDF directs monies received from fines and court orders for environmental offences to projects that will benefit Canada's natural environment.

The Impact Assessment Agency of Canada conducts and administers high-quality assessments that contribute to informed decision making on designated projects in support of sustainable development. In 2019, the *Impact Assessment Act* replaced the *Canadian Environmental Assessment Act, 2012*, marking the transition to a new, more holistic assessment system that considers changes to the environment from designated projects as well as changes to health, social or economic conditions.

The Impact Assessment Agency of Canada continues to conduct and administer both environmental and impact assessments, with increased focus placed on considering Indigenous Knowledge and perspectives alongside western science in each assessment. The *Impact Assessment Act* and the *Canadian Energy Regulator Act* also specifically commit the Government of Canada to respect the rights of Indigenous Peoples and implement the United Nations Declaration on the Rights of Indigenous Peoples during the assessment of designated projects.

The *Canadian Energy Regulator Act* came into force in 2019, replacing the National Energy Board with the Canada Energy Regulator (CER), a modern regulator with increased independence and accountability. The CER ensures that pipeline, power line and offshore renewable energy projects are constructed, operated and abandoned in a safe and secure manner to protect people and the environment. The CER enforces strict environmental safety standards, while ensuring the decision-making process is transparent and considers both scientific information and Indigenous Knowledge. Designated projects under the *Canadian Energy Regulator Act* are subject to an integrated impact assessment led by the Impact Assessment Agency of Canada with the support of the CER. The integrated impact assessment for these projects provides a single review process that meets the requirements of both the *Impact Assessment Act* and the *Canadian Energy Regulator Act*.

In addition to environmental and impact assessments, the Impact Assessment Agency of Canada conducts regional and strategic assessments under the *Impact Assessment Act*. Regional assessments assess effects of current and anticipated physical activities in a specific region. They go beyond the scale of project-specific assessments to understand the regional context in areas where resource development is occurring or expected. Meanwhile, strategic assessments examine the Government of Canada's existing or proposed policies, plans, or programs relevant to impact assessment. Strategic assessments may also focus on issues relevant to impact assessment. Both regional and strategic assessments can help to foster sustainability by taking the interdependence of human-ecological systems and the well-being of present and future generation into consideration.

The Commissioner of the Environment and Sustainable Development (CESD), on behalf of the Auditor General of Canada, promotes transparency and accountability by assessing the performance of government programs, reporting on the federal government's progress in protecting the environment and advancing the sustainable development goals, and providing parliamentarians with objective, independent analysis and recommendations.

Under the *Federal Sustainable Development Act*, the CESD must review and comment on draft federal sustainable development strategies, as well as progress reports on their implementation. The CESD also manages the environmental petitions process and monitors the responses of federal ministers.

The petition process is a way for Canadians to bring their concerns about environmental and sustainable development issues to the attention of the federal government and obtain a formal response. The CESD also audits whether the Government of Canada is prepared to implement the 2030 Agenda for Sustainable Development. Its audits are also intended to provide an authoritative, independent voice on the challenges facing the global community as it plans to implement the sustainable development goals and report on progress leading up to 2030.

### **GENDER-BASED ANALYSIS PLUS (GBA PLUS) AND THE *IMPACT ASSESSMENT ACT***

The *Impact Assessment Act* requires GBA Plus for projects subject to the Act. The Impact Assessment Agency of Canada and project proponents must conduct GBA Plus at each stage of the assessment, including early planning, impact assessment, decision making, and post-decision phases. GBA Plus provides a framework and a set of analytical questions to guide an impact assessment. It is used to identify who is impacted by a project, and assesses how people may experience impacts differently in order to improve project design and develop mitigation measures that address different impacts. Applying GBA Plus to impact assessments helps practitioners and decision makers understand, describe, and mitigate adverse impacts on diverse populations.

# EFFECTIVE INSTITUTIONS FOR PROMOTING COMPLIANCE WITH ENVIRONMENTAL LAWS AND DELIVERING HIGH-QUALITY IMPACT ASSESSMENTS

## Targets and indicators

**By 2026, maintain the annual percentage of non-compliance with environmental and wildlife laws and regulations that are addressed by enforcement action at 70% (Minister of Environment and Climate Change)**

### ➤ **Percentage of non-compliance with environmental and wildlife laws and regulations that are addressed by enforcement action**

This indicator tracks the percentage of cases of non-compliance with environmental and wildlife laws and regulations falling under the responsibility of Environment and Climate Change Canada that are addressed through the use of enforcement measures to bring offenders into compliance.

**By March 31, 2026, restore and/or enhance a total of 5,000 hectares of natural environment through Environmental Damages Fund projects, from a baseline of 568 hectares in 2018 (Minister of Environment and Climate Change)**

### ➤ **Area (in hectares) where natural environments are restored and/or enhanced**

This indicator tracks the area (in hectares) of natural environments restored and/or enhanced and where. Restoration of degraded habitats is the ultimate outcome that the Environmental Damage Funds (EDF) aims to achieve through funded projects. This indicator is calculated by adding the results achieved by projects in a given fiscal year under 2 EDF program categories: Restoration and Environmental Quality Improvement. In 2019 to 2020, the result for this indicator was 9,492 hectares. The Environmental Damages Fund reports results from one prior fiscal year to ensure that results are only from closed projects.

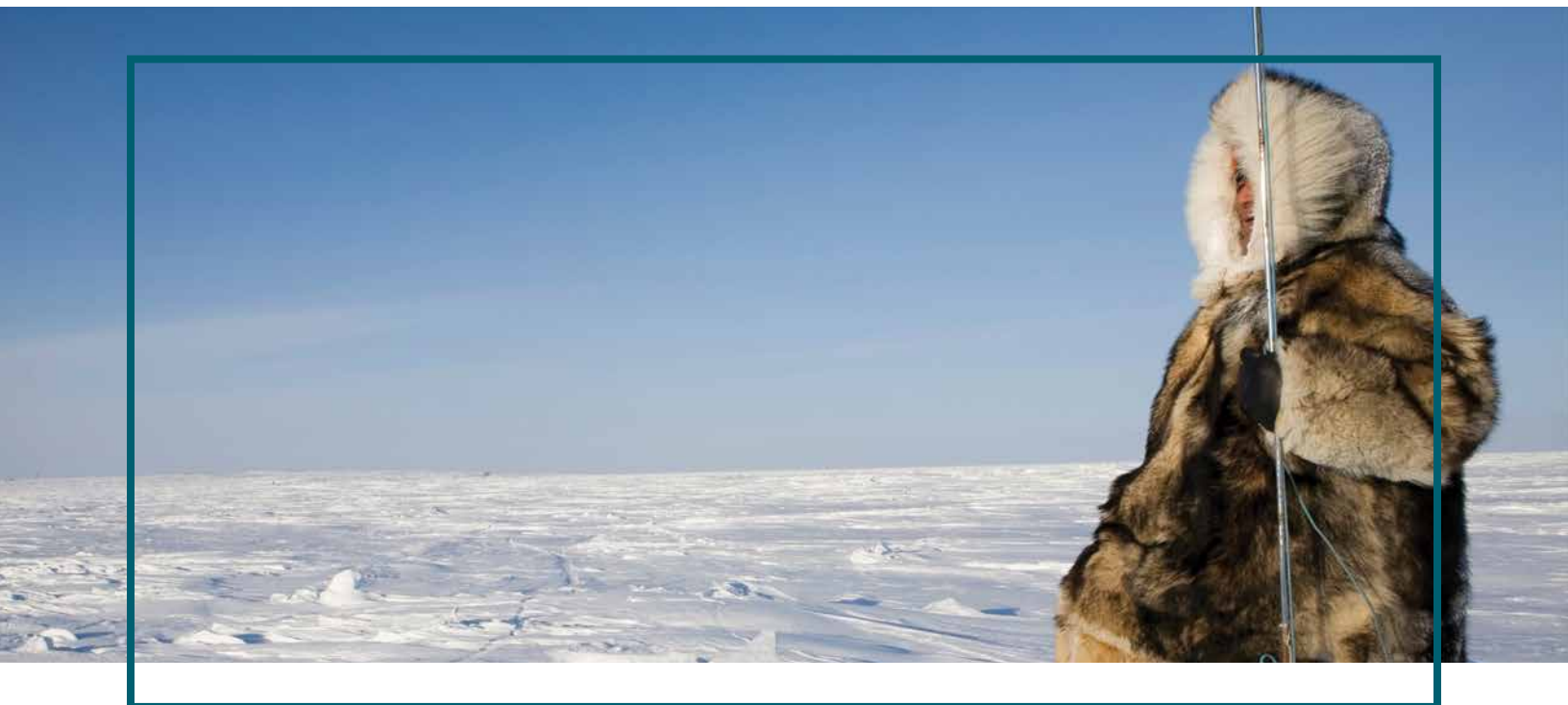
## Implementation strategy

### ◆ **Strengthen monitoring and enforcement through innovation**

A risk-based approach becomes stronger as more data is available for analysis. It can be tested, revised and strengthened over time, and is responsive to innovation. A stringent performance measurement process is applied and the results inform next year's process. For example, conducting inspections to gather intelligence and build data on compliance levels to ensure that risk analyses are based on the best possible data, and reserving a percentage of inspections to test the validity and reliability of new risk indicators to ensure continual refinement of its analysis and underlying assumptions.

### ◆ **Implement monitoring, inspection and enforcement activities**

To verify compliance, environmental and wildlife enforcement officers may carry out inspections. These inspections may identify an alleged violation, and alleged violations may also be identified by technical personnel or through complaints received from the public. Whenever a possible violation of the Acts or Regulations is identified, enforcement officers may carry out investigations. Whenever an enforcement officer discovers an alleged violation during an inspection or investigation, the officer will choose the appropriate enforcement action based on the nature of the alleged violation, effectiveness in achieving desired results, and maintaining consistent enforcement.



◆ **Use a risk-based approach to environmental enforcement**

Use a data-driven, risk-based approach to enforcement planning and priority setting. This approach measures and prioritizes the worst forms of non-compliance in order to quickly and sustainably restore compliance.

◆ **Foster research to support the implementation of the *Impact Assessment Act***

In support of the environmental aspects of SDG 16, Peace, Justice and Strong Institutions, manage a multidisciplinary research program that supports high-quality impact assessments, grows the community of experts working in the field, and leads to information sharing with all groups who can benefit from the research and evidence produced.

◆ **Meaningfully consult and accommodate Indigenous peoples and consider Indigenous Knowledge in impact assessment processes**

Through the requirement to consider Indigenous Knowledge alongside western scientific knowledge, federal impact assessments support the environmental aspects of SDG 16, Peace, Justice and Strong Institutions. The Impact Assessment Agency of Canada requires proponents to meaningfully engage with Indigenous peoples for designated projects, and coordinates consultations with potentially affected Indigenous communities. Meaningful consultations also include collaborating with Indigenous peoples to identify and recommend mitigation measures with legally-binding conditions, and potential accommodation measures needed to address the possible impacts of an approved project on the rights of Indigenous peoples.

◆ **Provide the public and Indigenous peoples with a voice in impact assessment processes**

In support of the environmental aspects of SDG 16, Peace, Justice and Strong Institutions, provide opportunities for the public, stakeholders and Indigenous peoples to participate in all phases of the impact assessment process. The Impact Assessment Report reflects comments from the public, stakeholders and Indigenous peoples received throughout the assessment process that will be considered by decision makers.



### ◆ **Support fair and predictable impact assessments**

In support of the environmental aspects of SDG 16, Peace, Justice and Strong Institutions, deliver high-quality impact assessments that contribute to informed decision making on designated projects through a fair, transparent, predictable, and efficient impact assessment process. This includes the establishment of a review panel of independent experts to ensure that decisions are based on science, Indigenous Knowledge, and other sources of evidence. Examine positive and negative environmental, economic, social, and health impacts of potential projects, and ensure that decisions are based on science, Indigenous Knowledge, and other sources of evidence.

### **Short-term milestones**

#### ▣ **Minimize the adverse effects of projects through impact assessments**

From 2024 to 2026, at least 90% of projects report that mitigation measures identified in decision statements are expected to effectively address adverse effects of the project.

#### ▣ **Promote evidence-based decision making that considers public and Indigenous community input, including Indigenous Knowledge**

From 2024 to 2026, 100% of reports provided to decision-makers include a science-based assessment of the project, and a summary of public comments and how Indigenous Knowledge and perspectives were considered.

## **BEYOND THE TARGETS**

The indicator below provides additional context for targets and other commitments supporting Sustainable Development Goal 16.

#### ◎ **Percentage of Commissioner of the Environment and Sustainable Development audits and evaluations reviewed by parliamentarians**

This indicator tracks legislative engagement with Commissioner of the Environment and Sustainable Development audits and evaluations, by way of reviews from the House of Commons Standing Committee on the Environment and Sustainable Development. This is a new indicator for which baseline data has not yet been collected.



## CHAPTER 17

# STRENGTHEN PARTNERSHIPS TO PROMOTE GLOBAL ACTION ON SUSTAINABLE DEVELOPMENT

## Federal Environmental Perspective on SDG 17

### The Environmental Perspective

While the concept of partnerships for the goals is broad, the focus of this chapter is on strengthening partnerships to promote global action on sustainable development. This focus directly supports [SDG Global Indicator Framework](#) targets 17.2: Developed countries to implement fully their official development assistance commitments; 17.3: Mobilize additional financial resources for developing countries from multiple sources; 17.4: Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly

indebted poor countries to reduce debt distress; and 17.10: Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda.

Inclusive partnerships and multi-stakeholder agreements are required at the local, regional, national and global levels to achieve the United Nations 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals. To address issues associated with a changing environment, stronger partnerships can advance environmental protection and sustainable development by sharing knowledge, building capacity, promoting the creation and transfer of environmentally-sound technologies, and mobilizing resources.

The impacts of climate change are being increasingly felt around the globe, particularly in developing countries that are most severely hit and least equipped to respond to the consequences. In 2009 as part of the Copenhagen Accord under the [United Nations Framework Convention on Climate Change](#) (UNFCCC), developed countries, including Canada, committed to jointly mobilize climate finance from a variety of public and private financial sources, reaching USD\$100 billion annually by 2020. This commitment was reaffirmed in the [Paris Agreement](#), where Parties agreed that the USD\$100 billion goal will be continued through 2025.

In October 2021, the UK COP26 Presidency published the Climate Finance Delivery Plan prepared jointly by Germany and Canada. The Delivery Plan clarifies when and how developed countries will reach the collective USD\$100 billion climate finance goal until 2025. The estimations, based on the analysis of the Organisation for Economic Co-operation and Development (OECD), show that the goal of USD\$100 billion per year will be met in 2023, and provides confidence that developed countries can mobilize more than USD\$100 billion thereafter through to 2025.

Another aspect of partnership relates to trade. The linkages between trade and the environment are complex and the subject of international discussions and negotiations. Countries and international organizations, such as the World Trade Organization, G7, G20, OECD and Asia-Pacific Economic Cooperation, are working together to promote mutually supportive trade and environment objectives such as environmental protections in bilateral and regional trade agreements and multilateral initiatives on trade and environment.

Any agenda focused on reducing inequalities must consider Canada's role in global affairs and in alleviating inequalities among countries. Despite some global measures that have reduced inequalities, such as international assistance and preferential trade status that benefits low-income countries, inequalities persist worldwide. The effects of the COVID-19 pandemic have deepened inequalities, especially where weakened health systems or existing humanitarian crises have increased the risk of people being left behind or dying.

Developing countries are particularly exposed to the effects of climate change and biodiversity loss. Climate-related disasters such as droughts, floods, extreme weather events, and food and water insecurity have a greater and differentiated effect on these at-risk groups, especially women, girls, persons with disabilities, Indigenous peoples, and people with reduced incomes. These groups face greater vulnerabilities, including the burden of managing the shocks of climate change and the health impacts of indoor and outdoor pollution. Therefore, individuals and groups in vulnerable situations stand to benefit the most from climate change mitigation and adaptation measures, and from measures to protect and restore nature.

Developing countries also have fewer financial resources and less technical capacity to implement climate change mitigation and adaptation measures. Canada's international engagement on climate change, including its climate finance commitment to developing countries to support their climate mitigation, and to foster resilience among those most at risk from the effects of climate change, is important to reduce global inequalities.

## WHERE THE GOVERNMENT OF CANADA IS GOING

[Mandate letters](#) released in December 2021 outline the Government of Canada's direction and policy priorities. Selected commitments related to Sustainable Development Goal 17 are listed below.

- Mobilize and provide climate finance in order to support developing country adaption, mitigation and resilience, including support for small island states at particular risk of climate-related emergencies (Minister of International Development and Minister responsible for the Pacific Economic Development Agency of Canada; Minister of Environment and Climate Change).
- Enhance and expand Canada's Responsible Business Conduct strategy and provide continued support to the Canadian Ombudsperson for Responsible Enterprise to ensure Canadian companies and Crown corporations uphold the highest environmental and social standards of corporate governance (Minister of International Trade, Export Promotion, Small Business and Economic Development).
- Support the Mines to Mobility Strategy by attracting anchor investments in key areas like minerals processing, cell manufacturing and zero-emissions vehicle parts and assembly manufacturing, and ensure the protection and development of our critical minerals. This includes working to develop and launch a Canadian Critical Minerals Strategy to position Canada at the forefront of critical mineral exploration, extraction, processing and manufacturing, as a global leader in the production of batteries, and other clean and digital technologies, as well as to develop a sustainable battery innovation and industrial ecosystem in Canada, including to establish Canada as a global leader in battery manufacturing, recycling and reuse (Minister of Innovation, Science, and Industry; Minister of Natural Resources).
- Continue Canada's leadership on the global effort to phase out coal-powered electricity and the mining of thermal coal and ban thermal coal exports from and through Canada as swiftly as possible, and no later than 2030 (Minister of Environment and Climate Change; Minister of International Trade, Export Promotion, Small Business and Economic Development).
- Continue leading implementation of the 2030 Agenda for Sustainable Development adopted by the United Nations (Minister of Families, Children and Social Development).

## How the Government of Canada Contributes

Canada recognizes that meeting the ambitious goals of the Paris Agreement will require a global effort. In 2019 to 2020, Canada contributed more than \$700 million in bilateral international assistance to address climate change. In addition, Canada also provides institutional support to multilateral organizations which support initiatives to address climate change (such as the Global Environment Facility and the Least Developed Countries Fund). However, the transition to low-emission, climate-resilient economies will require substantially more financing, from all actors and sources. That is why the Government of Canada is working with partners to tap into the significant potential for investment in climate solutions by the private sector and helping to mobilize additional climate finance in developing countries.

In support of the Paris Agreement, Canada's climate finance commitments encompass a wide range of climate mitigation and adaptation measures in developing countries, especially the poorest and most vulnerable, including the least-developed countries, Small Island Developing States and coastal communities. On June 13, 2021, Canada announced a doubling of its climate finance to \$5.3 billion over the next 5 years, including increased support for adaptation as well as nature and nature-based solutions. This ambitious commitment will support developing



countries in building domestic capacity to combat climate change—including through transition to clean energy and the phasing-out of coal—and biodiversity loss around the world. Canada will increase its provision of funding toward climate adaptation to a minimum of 40%. As well, at least 20% of Canada’s international climate finance commitment will be allocated to projects that have nature-based climate solutions and biodiversity co-benefits. This commitment builds on Canada’s recently delivered \$2.65-billion, 5-year climate finance commitment to help developing countries, particularly the poorest and most at-risk, transition to climate-resilient and low-carbon economies.

Canada’s commitment is delivered through a variety of bilateral and multilateral initiatives to help developing countries in implementing their Nationally Determined Contributions, National Biodiversity Strategies and Action Plans, and National Adaptation Plans, including the Green Climate Fund, the largest dedicated climate fund in the world. Canada’s approach includes partnering with Multilateral Development Banks, such as the Asian Development Bank and the World Bank Group, to establish Canadian climate funds to leverage private sector financing by removing market barriers to private climate investment in developing countries. This includes using targeted amounts of concessional finance (in other words, below market rate) to demonstrate the commercial viability of projects and unlock future private investments in similar initiatives.

Canada supports target sectors such as clean technology and renewable energy, waste management and strengthening monitoring, reporting and verification systems, climate-smart agriculture, nature-based solutions and biodiversity, forest management, and risk insurance. For example, Canada is supporting innovation on climate-resilient agriculture and food systems through the Consultative Group on International Agricultural Research, a global research partnership that aims to transform food, land and water systems to not only strengthen food security and end hunger, but also promote gender equality, create new jobs and livelihoods, and deliver climate and environmental benefits around the world.



Canada has also announced investments of up to \$57.5 million to help the world's poorest and most vulnerable countries adapt to the climate crisis and increase their resilience.

Canada's climate finance commitment aligns with Canada's [Feminist International Assistance Policy](#) that guides Canada's overall approach on international assistance. Canada's international climate finance has a strong focus on gender equality and the empowerment of women and girls. Canada's \$5.3 billion climate finance will ensure that 80% of its projects integrate gender equality considerations. Global Affairs Canada's Private Sector Engagement for Sustainable Development strategy guides Canada's work with the private sector in international assistance toward the achievement of the Sustainable Development Goals.

The Government of Canada engages bilaterally and regionally to advance its strategic climate change, environmental protection, and biodiversity priorities. It pursues an ambitious trade and investment agenda and actively promotes trade and investment in goods and services needed to protect Canada's natural environment.

Canada's overall approach to environment in its free trade agreement (FTA) negotiations is based on the guiding principle that trade and environment should be mutually supportive, incorporating environmental considerations and obligations to ensure that strong environmental standards are upheld by all Parties. All but one of Canada's free trade agreements contain environmental provisions (the Canada-European Free Trade Association FTA is an exception). Some of these are contained in parallel environment agreements, while some are contained within the main text of the agreement, including in standalone environment chapters. In these environment chapters, Canada also seeks to include commitments in areas that strengthen the relationship between trade and environment, such as supporting trade in environmental goods and services, as well as commitments on a range of global environmental issues.

## **CANADA'S FEMINIST FOREIGN POLICY**

Canada currently applies a feminist approach across all of its international policies and programming, including diplomacy, trade, security, development, and consular services. It is being operationalized through a suite of complementary international policies, programs, and initiatives. This includes Canada's Inclusive Approach to Trade; its National Action Plan on Women, Peace and Security and Elsie Initiative; and its Feminist International Assistance Policy. These policies place a focus on dismantling persistent systemic barriers, discriminatory norms, and inequalities based on sex and gender—including sexual orientation, gender identity and expression, and sex characteristics—as well as on the basis of other intersecting aspects of identity such as race, national or ethnic origin, religion, age, language, or disability.

Canada's Feminist Foreign Policy is the international expression of ongoing, coordinated, and whole-of-government efforts to advance human rights, including diversity and inclusion and gender equality domestically. In doing so, it reinforces Canada's overarching objectives of strengthening a rules-based international system, supporting lasting peace and security, fostering prosperity, and implementing the Sustainable Development Goals.

As communities around the world are experiencing the destabilizing effects of climate change, environmental degradation, and biodiversity loss in different and costly ways, gender-responsive and inclusive action, and diverse partnerships, are necessary to develop strong, inclusive, and sustainable solutions.



Canada also champions trade and environment at the World Trade Organization's Committee on Trade and Environment and the Trade and Environmental Sustainability Structured Discussions, as well as the Organisation for Economic Co-operation and Development's Joint Working Party on Trade and Environment.

Through its [International Business Development Strategy for Clean Technology](#), the Trade Commissioner Service is helping more Canadian clean technology firms pursue export opportunities and scale up internationally. It is also helping Canadian firms capitalize on growing global market opportunities, including competing for commercial opportunities funded through global climate finance and helping to build back better and reduce greenhouse gas emissions around the world. In collaboration with Trade Commissioner Service, Environment and Climate Change Canada helps explore new market opportunities for Canadian exporters of environmental and clean technology goods and services by leveraging cooperation under the environment chapter in free trade agreements and associated environmental agreements as well as other environmental cooperation mechanisms.

Canada is party to a number of international agreements and initiatives to reduce inequality in relation to global climate and environmental challenges. These include the Paris Agreement under the [United Nations Framework Convention on Climate Change \(UNFCCC\)](#). Canada is a strong proponent of international climate action by Indigenous peoples and played a key role in launching and operationalizing the Local Communities and Indigenous Peoples Platform in the UNFCCC. The platform aims to strengthen the capacity of local communities and Indigenous peoples to address and respond to climate change, exchange best practices and knowledge with respect to mitigation and adaptation, and enhance their engagement in the broader UNFCCC process.

Finally, Canada also supports Earth observation satellites that provide critical services that Canadians rely on, including reliable weather forecasts, while helping to monitor and fight climate change, and supporting innovation across sectors, including energy and agriculture. Data produced by the Earth observation missions can be used to assess the impacts of climate change across Canada, while supporting decision making related to environment management and protection, as well as disaster mitigation.



## RELATIONSHIPS WITH INDIGENOUS PEOPLES

Environment and Climate Change Canada has a long history of working in partnership and consulting with Indigenous peoples with the intent to uphold Aboriginal and Treaty rights, such as access to traditional territory and the harvesting of plants and animals. Indigenous peoples also participate in Environment and Climate Change Canada's international work by informing policy positions and participating in international discussions. This includes work related to the Convention on Biological Diversity, and the North American Commission on Environmental Cooperation. Environment and Climate Change Canada also engages with Indigenous groups through other mechanisms, such as:

- Senior Bilateral Tables on Clean Growth and Climate Change
- the National Steering Committee for Indigenous Protected and Conserved Areas
- the Indigenous Guardians Working Group
- the Committee on the Status of Endangered Wildlife in Canada



## ENVIRONMENTAL PARTNERSHIPS

### Target and indicator

**Implement Canada's climate finance commitment of \$5.3 billion over 5 years, with at least 40% of funding going toward climate adaptation and at least 20% to projects that leverage nature-based climate solutions and projects that contribute biodiversity co-benefits (Minister of Environment and Climate Change)**

#### 📌 Delivery of Canada's climate finance commitment

This indicator tracks the delivery of Canada's climate finance commitment. Data (disbursements and results) on the first fiscal year of the commitment will be available by the end of March 2022.

### Implementation strategy

#### ◆ Increase support to and help build capacity in developing countries to adapt to and mitigate climate change

Provide increased mitigation and adaptation support to developing countries, especially the poorest and most vulnerable, to pursue inclusive, low-carbon and climate resilient development. Canada's support for mitigation action in developing countries will lead to measurable greenhouse gas emission reductions, and its support for adaptation measures in developing countries will increase climate resilience for the most vulnerable.



- ◆ **Promote environmental protection in trade agreements and other engagement mechanisms**  
Integrate and implement environmental considerations and provisions in bilateral, regional, and multilateral free trade agreements and environmental agreements, to ensure that environmental standards are upheld as trade and investment are liberalized. Promote cooperation on environmental issues of mutual interest with key trading partners. Support initiatives on trade and environment in multilateral fora such as the World Trade Organization.
- ◆ **Work with partners to monitor and protect our ecosystems from space**  
Collect, monitor and disseminate space-based data and information to protect the environment.
- ◆ **Work with partners to support a clean energy transition**  
Support developing countries' clean energy transition and coal phase-out.

### Short-term milestone

- **Engage with priority countries and regions**  
By 2023, Canada cooperates with bilateral and regional international partners on the environment, climate change, and clean technology, through negotiation of environment provisions in free trade agreements, engagement under bilateral and regional environmental cooperation instruments, and engagement with partners to advance Canada's priorities.

## BEYOND THE TARGETS

The indicators below provide additional context for targets and other commitments supporting Sustainable Development Goal 17.

- ◎ **Amount of Canadian international assistance that addresses climate change**  
This indicator measures Canada's cumulative international assistance programming that addresses climate change as its main objective, through our \$5.3 billion commitment to climate finance from 2021–2022 to 2025–2026.
- ◎ **Number of international engagements and commitments that advance Canada's priorities on environment, climate change and clean technology**  
This indicator tracks Canada's international engagements aimed at ensuring that Canada's sustainable natural resources remain competitive in the market, maintaining relationships with other countries, and promoting Canada's clean technology and sustainable natural resources. This includes meetings, conferences, summits, virtual and teleconference discussions, bilateral and trilateral meetings with other countries and major international events (an average of 40 international engagements per year).

# ANNEX 1: ABOUT THE FEDERAL SUSTAINABLE DEVELOPMENT STRATEGY

The Federal Sustainable Development Strategy (FSDS, the strategy) sets out our sustainable development priorities, establishes goals and targets, and identifies actions to achieve them. Actions to implement the strategy will support the environmental aspects of the sustainable development goals (SDGs) of the United Nations 2030 Agenda for Sustainable Development.

## Legislative Basis

The [\*Federal Sustainable Development Act\*](#) (the Act) establishes the requirement to table the Federal Sustainable Development Strategy. Its purpose is to provide the legal framework for developing and implementing a strategy that will:

- make decision making related to sustainable development more transparent and subject to accountability to Parliament
- promote coordinated action across the Government of Canada to advance sustainable development
- respect Canada's domestic and international obligations relating to sustainable development

The Act requires the Minister of Environment and Climate Change to table and report on a whole-of-government strategy at least once in each 3-year period. Recent amendments to the Act came into force on December 1, 2020.

## History Of The Strategy

The 1987 Brundtland Report to the World Commission on Environment and Development introduced the concept of sustainable development as “development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.” In response, in 1995 the Government of Canada introduced amendments to the *Auditor General Act* requiring federal departments and agencies to create their own individual sustainable development strategies. These amendments also established the office of the Commissioner of the Environment and Sustainable Development (the Commissioner). The Commissioner later identified several weaknesses in this system, including the lack of a coherent, overarching federal strategy, stating it was like trying to put together a puzzle with no picture on the box.

In 2008, a more effective approach was enacted when the Act was passed and came into force. The Act provides the legal framework for the Federal Sustainable Development Strategy. At that time, it also tasked 28 departments and agencies with preparing their own departmental sustainable development strategies (DSDSs) that comply with and contribute to the strategy. The 2008 Act also introduced a requirement to consult Canadians on each new Federal Sustainable Development Strategy. Four federal sustainable development strategies were tabled under the 2008 Act (2010 to 2013, 2013 to 2016, 2016 to 2019 and 2019 to 2022).

In 2016, the House of Commons Standing Committee on Environment and Sustainable Development conducted a review of the Act and issued a report containing 13 recommendations. The committee's recommendations identified issues concerning, among other things, the scope of the Act, the need for a whole-of-government approach, and a need for greater transparency and accountability in the development and implementation of sustainable development strategies.

The government responded to the committee's recommendations with the 2017 Bill C-57, *An Act to Amend the Federal Sustainable Development Act*, which came into force on December 1, 2020. The amended Act provides greater flexibility in presenting the view of sustainable development to encompass environmental, economic, and social aspects. It also provides for a whole-of-government approach by increasing the number of federal organizations required to contribute to and report on the Federal Sustainable Development Strategy from 28 to more than 95.

The amended Act also includes mechanisms to make sustainable development decision making more transparent and accountable, including a requirement that targets be measurable and include a time frame, and that departmental sustainable development strategies must be tabled in Parliament and referred to the Senate and House committees that deal with matters relating to sustainable development. The draft 2022 to 2026 Federal Sustainable Development Strategy is the first to be prepared under the amended Act.

## **Roles And Responsibilities**

Environment and Climate Change Canada has a key role in implementing the Act. It houses the Sustainable Development Office (SDO), which is responsible for coordinating the development of the strategy. The SDO is also responsible for developing and maintaining systems and procedures to monitor progress on implementation of the strategy, and for preparing Federal Sustainable Development Strategy progress reports at least once every 3-year period.

Sustainable development cuts across many departmental and agency mandates. The Act reflects this, requiring federal organizations named in Schedule I, I.1 and II of the *Financial Administration Act* (more than 95 in total) to prepare and report on sustainable development strategies that support the implementation of the goals of the Federal Sustainable Development Strategy. It also provides for including other federal organizations that wish to participate in the strategy, such as Crown Corporations, through an Order in Council. Two such organizations, the National Capital Commission and The Jacques Cartier and Champlain Bridges Inc., are now included in the Act.

The role of departments and agencies also includes:

- working collaboratively with Environment and Climate Change Canada to develop the Federal Sustainable Development Strategy and progress reports within every 3-year period
- integrating environmental and sustainable development considerations into policy, plan and program development through strategic environmental assessments

## The Role Of Public Consultation

Public consultation is an important part of Federal Sustainable Development Strategy development under the Act. Each draft strategy must undergo a public consultation period of at least 120 days before it is finalized. As part of public consultation, the Minister of Environment and Climate Change provides the draft Federal Sustainable Development Strategy to:

- the Commissioner of the Environment and Sustainable Development
- the [Sustainable Development Advisory Council](#) (a multi-stakeholder advisory body consisting of 13 members of the Canadian public that represent the views of different provinces and territories, 6 representatives of Indigenous peoples and 3 from each of the following: environmental non-governmental organizations, business organizations, and organizations representative of labour)
- the appropriate committee of each House of Parliament
- the public

Consultation results inform the final strategy and are summarized in a publicly-available report.

## The Structure Of The Strategy

The draft 2022 to 2026 Federal Sustainable Development Strategy is organized around the UN 2030 Agenda 17 Sustainable Development Goals from an environmental perspective, acknowledging Canada's unique responsibilities and circumstances.

One or more targets contribute to each goal. Under the Act, targets must:

- be specific and measurable
- include a time frame
- identify one or more responsible ministers
- be consistent with the Act's principles

To the extent possible, targets should also:

- take a medium-term view (5 to 10 years)
- fall within federal jurisdiction
- align with federal priorities
- be supported by indicators that accurately represent the target and allow for comparison over time
- have a clear connection to a Sustainable Development Goal, as viewed through an environmental lens



Short-term milestones complement the strategy's targets. They represent interim steps that will help ensure the Government of Canada stays on track to achieve its longer-term objectives. In general, short-term milestones should be achievable within one Federal Sustainable Development Strategy cycle. To the extent possible, milestones should:

- be specific and measurable
- include a timeframe
- take a short-term view (within one FSDS cycle)
- have a clear connection to one or more FSDS targets or to a Sustainable Development Goal

Implementation strategies set out what the Government of Canada will do to achieve its goals and targets. They describe the actions that federal organizations are committed to taking to make progress toward the strategy's goals and targets. To the extent possible, implementation strategies should:

- be written in plain, high-level language
- be broad and inclusive to allow for linkages with specific departmental actions
- reflect actions the Government of Canada is taking or plans to take during the FSDS cycle
- have a clear connection to one or more FSDS targets or to a Sustainable Development Goal

Implementation strategies set out in the Federal Sustainable Development Strategy are complemented by specific commitments in departmental sustainable development strategies. Departmental strategies, which must be tabled within one year of the Federal Sustainable Development Strategy tabling date, will include actions and performance measures that contribute to the strategy's implementation strategies.

While provinces and territories, Indigenous peoples, businesses, the scientific community, non-governmental organizations and Canadian citizens contribute to achieving environmental outcomes and achieving the Sustainable Development Goals of the 2030 Agenda, only federal actions are included in the Federal Sustainable Development Strategy.

# ANNEX 2: PERFORMANCE MEASUREMENT

Performance measurement is an essential part of the Government of Canada's sustainable development approach. The government tracks and reports on sustainable development actions and results through:

- triennial Federal Sustainable Development Strategy (FSDS) progress reports
- annual reporting on departmental sustainable development strategies (DSDSs)
- the Canadian Environmental Sustainability Indicators (CESI)
- annual updates to departmental web pages

## FSDS Progress Reports

The *Federal Sustainable Development Act* requires the Minister of Environment and Climate Change to table a Federal Sustainable Development Strategy progress report at least once every 3-year period. These progress reports describe how the government is implementing the strategy and the progress made toward its goals and targets. In response to past recommendations from the Commissioner of the Environment and Sustainable Development, a simple dashboard rating system approach helps to ensure that Federal Sustainable Development Strategy progress reports are clear and accessible by using a progress report card.

The Sustainable Development Office (SDO) uses the rating system to assess progress against each target by examining the most recent target-level indicator results achieved during the FSDS cycle to propose an assessment of "achieved", "underway", "attention required", or "no new data available". The federal organizations whose ministers are responsible for each target are responsible for determining a fair and balanced assessment in consultation with the SDO.

The progress report also describes progress against the strategy's medium-term targets by using additional reporting on contextual indicators and short-term milestones. In some cases, the report notes where activity to date may constitute a newly-set baseline against which future progress will be measured. Progress reports are a snapshot in time that should be read in tandem with departmental reporting on departmental sustainable development strategies.

While Federal Sustainable Development Strategy progress reports provide important information on environmental outcomes, it is important to note that responsibility for the environment and sustainable development is shared, and that the Government of Canada supports sustainable development within the constraints of federal jurisdiction and authorities. As a result, in some instances it can be difficult to directly link federal actions to specific outcomes.

## Departmental Sustainable Development Strategies

DSDSs provide detailed information on what individual departments and agencies are doing to help meet the aspirational goals and/or targets of the Federal Sustainable Development Strategy. Within one year after the 2022 to 2026 strategy is tabled in Parliament, taking into account Canadians' comments and ideas, participating federal organizations will develop DSDSs that support the implementation of the goals and/or targets of the Federal Sustainable Development Strategy.

DSDSs include:

- the department's sustainable development vision
- specific departmental sustainability commitments and actions
- performance indicators that show how departments are meeting their commitments
- information on departmental decision making and sustainable development practices, including implementation of strategic environmental assessments

Federal organizations bound by the Act contribute differently to Federal Sustainable Development Strategy goals and/or targets depending on their mandate; however, all are responsible for contributing to the greening government content.

## Indicators

A number of the indicators that will be used to measure and report on progress are drawn from the [CESI program](#), which provides a wide range of indicators for public availability. The program selects indicators using the following criteria:

- policy relevance (represents the FSDS goals and targets)
- utility (meets the needs of decision makers and the public)
- soundness (provides consistent and solid methodology; comparable over time)
- data availability and integrity (uses existing high-quality data with adequate coverage)

The CESI program produces indicators with the support of programs within Environment and Climate Change Canada and other federal departments and agencies, including Health Canada, Statistics Canada, Natural Resources Canada, Parks Canada, Transport Canada and Fisheries and Oceans Canada, as well as provincial and territorial governments.

In addition to the indicators drawn from the CESI program, indicators are sourced from reporting structures used in the departmental planning and reporting cycle of contributing federal organizations, as well as from surveys conducted on a regular or semi-regular basis.

The following table lays out the performance measurement framework to be used for reporting and assessing progress on the targets of the strategy. It also details the contextual indicators which are used to provide more information in progress reporting about issues related to the goals and targets of the strategy. Indicators that can also be found in the Canadian Indicator Framework have been marked with: ▲.

## SDG 1: NO POVERTY

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	By March 2023, 55% of Canadians are aware of disaster risks facing their household	<a href="#">Percentage of Canadians who are aware of disaster risks facing their household</a>	Public Safety Canada	Every 2 years
CONTEXTUAL		Emergency geomatics services provided to Canadians	Natural Resources Canada	Annual
		Proportion of investments in disaster mitigation by Infrastructure Canada that benefits/targets climate-vulnerable populations	Infrastructure Canada	To be determined
		Structural and natural assets	Infrastructure Canada	To be determined

## SDG 2: ZERO HUNGER

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	By 2026, maintain 90% compliance with <i>Fisheries Act</i> regulations related to aquaculture	<a href="#">Management of Canadian aquaculture</a>	CESI	Annual
TARGET	By 2030, support improvement in the environmental performance of the agriculture sector by achieving a score of 71 or higher for the Index of Agri-Environmental Sustainability	<a href="#">Index of Agri-Environmental Sustainability for water, soil, air and biodiversity</a> ▲	Agriculture and Agri-Food Canada	Every 5 years
CONTEXTUAL		<a href="#">Greenhouse gas emissions by economic sector – agriculture</a>	CESI	Annual
		<a href="#">Land-use change</a>	CESI	Every 5 years
		<a href="#">Wildlife habitat capacity on agricultural land</a>	CESI	Every 5 years



## SDG 3: GOOD HEALTH AND WELL-BEING

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	Increase the percentage of the population living in areas where air pollutant concentrations are less than or equal to the Canadian Ambient Air Quality Standards from 60% in 2005 to 85% in 2030	<a href="#">Population exposure to outdoor air pollutants</a> ▲	CESI	Annual
TARGET	By 2024, 100% of the 4,363 existing chemicals that were prioritized under the Chemicals Management Plan have been addressed	Existing chemicals addressed under the Chemical Management Plan	Environment and Climate Change Canada Health Canada	To be determined
TARGET	By March 31, 2025, 60% of Federal Contaminated Sites Action Plan eligible sites are closed or in long-term monitoring	<a href="#">Number of Federal Contaminated Sites Action Plan eligible sites that are closed or in long-term monitoring</a>	Environment and Climate Change Canada	Annual
CONTEXTUAL		<a href="#">Air quality</a>	CESI	Annual
		<a href="#">Emissions of harmful substances to air</a>	CESI	Annual
		<a href="#">Household use of chemical pesticides and fertilizers</a>	CESI	Every 2 years
		<a href="#">Human exposure to harmful substances</a>	CESI	Every 3 years
		<a href="#">Releases of harmful substances to water</a>	CESI	Annual

## SDG 4: QUALITY EDUCATION

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
<b>TARGET</b>	By 2026, increase the number of Canadians accessing climate information through the Canadian Centre for Climate Services from a baseline of 200,815 visits to the portals in 2021	<a href="#">Number of clients accessing climate information through Canadian Centre for Climate Services' Climate Information Portals</a>	Environment and Climate Change Canada	Annual
<b>TARGET</b>	By 2026, increase the annual number of Canadians accessing environmental sustainability information through the Canadian Environmental Sustainability Indicators website, and through the Canadian Indicator Framework portal, to 260,000 visits from a baseline of 239,188 visits in 2020	Number of Canadians accessing environmental sustainability information through the Canadian Environmental Sustainability Indicators website and the Canadian Indicator Framework portal	Environment and Climate Change Canada  Statistics Canada	Annual
<b>TARGET</b>	Increase Canada's ranking for Average Relative Citation in natural sciences, engineering, and life sciences to the top 10 of OECD countries by 2025	Canada's ranking for Average Relative Citation in natural sciences, engineering, and life sciences	Innovation, Science and Economic Development Canada	To be determined
<b>TARGET</b>	175,000 students in science, technology, engineering and mathematics (STEM) graduate in Canada by December 2025	<a href="#">Number of science, technology, engineering and mathematics graduates in Canada</a>	Innovation, Science and Economic Development Canada	Annual

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
CONTEXTUAL		Funding invested in research related to the environment and sustainable development	Innovation, Science and Economic Development Canada  Canadian Institutes of Health Research  Natural Sciences and Engineering Research Council of Canada  Social Sciences and Humanities Research Council of Canada	Annual
		Ground-based infrastructure to receive earth observation data to monitor climate action	Natural Resources Canada	To be determined
		Number of international data partnerships and engagements that support decision making on sustainable development	Natural Resources Canada	Annual

## SDG 5: GENDER EQUALITY

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	By 2026, increase the number of women employed in the clean technology sector from a baseline of 86,694 in 2019	<a href="#">Number of women working in the clean technology sector</a>	Innovation, Science and Economic Development Canada	Annual
CONTEXTUAL		<a href="#">Persistence and representation of women in science, technology, engineering and mathematics (STEM) programs</a>	Statistics Canada	Occasional
		<a href="#">Proportion of leadership roles held by women</a> ▲	Statistics Canada	Occasional
		<a href="#">Number of female farm operators in Canada</a>	Statistics Canada	Every 5 years
		Number of individuals with an enhanced awareness and/or knowledge and/or skills to promote women's participation and leadership in public life	Global Affairs Canada	Annual
		<a href="#">Number of people newly-employed in the environment sector, including in technical, supervisory and management roles supported by Global Affairs Canada programming</a>	Global Affairs Canada	Annual
		Percentage of bilateral international development assistance investments that either target or integrate gender equality and the empowerment of women and girls	Global Affairs Canada	Annual



## SDG 6: CLEAN WATER AND SANITATION

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	By 2026, complete all actions required to restore 6 Areas of Concern in the Great Lakes	Number of actions taken to restore 6 Areas of Concern in the Great Lakes	Environment and Climate Change Canada	To be determined
TARGET	By 2026, report on all 9 objectives to be achieved for the Great Lakes	Reporting on 9 objectives to be achieved for the Great Lakes	Environment and Climate Change Canada	To be determined
TARGET	By 2027, action plans are in place to advance restoration and protection of major lakes and rivers in Canada	Number of action plans to advance restoration and protection of major lakes and rivers	Environment and Climate Change Canada	To be determined
TARGET	By March 2030, 85% of wastewater systems on reserve achieve effluent quality standards	Percentage of wastewater systems on reserve where effluent quality standards are achieved	Environment and Climate Change Canada	To be determined
TARGET	By December 2040, 100% of wastewater systems achieve effluent quality standards	Percentage of wastewater systems where effluent quality standards are achieved	Environment and Climate Change Canada	To be determined
CONTEXTUAL		<a href="#">Drinking water advisories</a>	CESI	Every 2 years
		<a href="#">Metal and diamond mining effluent quality</a>	CESI	Annual
		<a href="#">Pulp and paper effluent quality</a>	CESI	Annual
		<a href="#">Water quality in Canadian rivers</a> ▲	CESI	Annual
		<a href="#">Water quantity in Canadian rivers</a>	CESI	Every 2 years
		Sustainable water use indicator in development	CESI	To be determined

## SDG 7: AFFORDABLE AND CLEAN ENERGY

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	By 2030, 90%, and in the long term 100% of Canada's electricity is generated from renewable and non-emitting sources	<a href="#">Proportion of electricity generated from renewable and non-greenhouse gas-emitting sources</a> ▲	Natural Resources Canada	Annual
TARGET	Consult on the development of a Clean Electricity Standard to achieve a net-zero clean electricity grid by 2035 and achieve a 100% net-zero emitting electricity future	In development	Environment and Climate Change Canada	To be determined
TARGET	By 2030, 600 petajoules of total annual energy savings will be achieved as a result of adoption of energy efficiency codes, standards and practices from a baseline savings of 20.0 petajoules in 2017 to 2018	<a href="#">Total annual energy savings resulting from adoption of energy efficiency codes, standards and practices</a> ▲	Natural Resources Canada	Annual
TARGET	By 2030, grow the production and use of clean fuels while continually reducing life-cycle carbon intensity over the long-term	The proportion of Canada's energy demand met by clean fuels and the carbon intensity of those fuels	Natural Resources Canada	To be determined
CONTEXTUAL		Number of projects funded to support First Nation, Inuit and the Métis Nation's capacity and readiness	Indigenous Services Canada	To be determined

## SDG 8: DECENT WORK AND ECONOMIC GROWTH

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	Achieve 8% growth in jobs in the clean tech products sector by March 31, 2024	Jobs in the clean technology products sector ▲	Innovation, Science and Economic Development Canada	Annual
TARGET	Between 2022 and 2026, 30% of all Sustainable Development Technology Canada's SD Tech Fund-supported technologies are commercialized annually	Percentage of SD Tech Fund-supported technologies commercialized (revenue derived from project technology)	Innovation, Science and Economic Development Canada	Every 2 years
CONTEXTUAL		<a href="#">Environmental and clean technology sector compensation</a>	Innovation, Science and Economic Development Canada	To be determined
		Environmental and clean technology sector GDP	Innovation, Science and Economic Development Canada	To be determined
		Sustainable business practices	Statistics Canada	To be determined
		Value of investments leveraged in clean technologies	Innovation, Science and Economic Development Canada	Annual

## SDG 9: INDUSTRY, INNOVATION AND INFRASTRUCTURE

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	By March 31, 2024, 1,000 electric vehicle chargers, 22 natural gas stations, and 15 hydrogen stations along major highways, freight corridors and key metropolitan centres are completed	<a href="#">Number of low-carbon recharging and refueling stations along major highways, and in rural and urban areas</a> ▲	Natural Resources Canada	Annual
TARGET	By March 31, 2026, 33,500 new electric vehicle chargers in public places, on-street, at apartment buildings, retail outlets, and the workplace, as well as 10 new hydrogen stations are completed	<a href="#">Number of low-carbon recharging and refueling stations in public places, on-street, at apartment buildings, retail outlets, and the workplace</a> ▲	Natural Resources Canada	Annual
TARGET	By fiscal year 2027 to 2028, the federal share of the value of green infrastructure projects approved under the Invest in Canada plan will reach \$26.9 billion	Value of green infrastructure projects approved under the Investing in Canada plan	Infrastructure Canada	Annual
CONTEXTUAL		Greenhouse gas emissions per dollar of value-added from the production of infrastructure assets	Infrastructure Canada	Annual



## SDG 10: REDUCED INEQUALITIES

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
<b>TARGET</b>	Between 2022 and 2026, continue to report on an annual basis to Canadians on access to clean drinking water in First Nations communities through Indigenous Services Canada's departmental website as data becomes available	<a href="#">Reporting on access to clean drinking water in First Nations communities</a>	Indigenous Services Canada	To be determined
<b>CONTEXTUAL</b>		<a href="#">Percentage of Indigenous peoples engaged with Environment and Climate Change Canada through conservation activities who indicate that the engagement was meaningful</a>	Environment and Climate Change Canada	Annual

## SDG 11: SUSTAINABLE CITIES AND COMMUNITIES

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	By 2030, 22% of commuters use public transit or active transportation	<a href="#">Population using public transit or active transportation</a> ▲	Statistics Canada	Every 5 years
TARGET	Establish a new National Urban Parks policy and designate national urban parks as part of a network, with a target of 15 new national urban parks by 2030	Designation of new national urban parks	Parks Canada	Annual
TARGET	By 2026, maintain or increase the number of Canadians that get out into nature, relative to the 2018 to 2019 baseline	<a href="#">Number of visits at Parks Canada heritage places</a>	Parks Canada	Annual
TARGET	By March 31, 2022, increase annual visitation to the 10 national wildlife areas that are part of the Connecting Canadians to Nature Initiative by 25%, from a baseline of 220,050 in 2015 when the program was launched	Number of visits to selected national wildlife areas	Environment and Climate Change	Annual
CONTEXTUAL		<a href="#">Number of natural heritage places managed cooperatively with Indigenous peoples</a>	Parks Canada	Annual
		<a href="#">Population living close to a public transit stop</a> ▲	Statistics Canada	Occasional
		<a href="#">Proximity to neighbourhood parks</a>	Statistics Canada	Every 2 years
		<a href="#">Visits to parks and public green spaces</a>	Statistics Canada	Every 2 years

## SDG 12: RESPONSIBLE PRODUCTION AND CONSUMPTION

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	Reduce the amount of waste Canadians send to disposal from a baseline of 699 kilograms per person in 2014 to 490 kilograms per person by 2030 (a 30% reduction); and to 350 kilograms per person by 2040 (a 50% reduction)	<a href="#">Solid waste diversion and disposal</a>	CESI	Every 2 years
TARGET	Plastic packaging in Canada contains at least 50% recycled content by 2030, where feasible	In development	Environment and Climate Change Canada	To be determined
TARGET	By 2032, reduce single-use plastics that are found in the environment, are not recycled, and have readily available alternatives (for example, checkout bags) entering the waste stream by 4% and entering the environment as pollution by 7%	In development	Environment and Climate Change Canada	To be determined
TARGET	100% of new light-duty vehicle sales are required to be zero-emission vehicles by 2035, with an interim sales target of at least 50% by 2030	Proportion of new light-duty vehicle registrations that are zero-emission vehicles	Transport Canada	To be determined
TARGET	100% of medium- and heavy-duty vehicles sales are zero emission by 2040, where feasible	Proportion of new medium- and heavy-duty vehicle sales that are zero-emission	Transport Canada	To be determined
CONTEXTUAL		<a href="#">Percentage of households who use their own bags or containers when grocery shopping</a>	Statistics Canada	Every 2 years
		<a href="#">Plastic particles in the Northern Fulmar</a>	CESI	Every 5 years
		<a href="#">Total waste diversion</a> ▲	Statistics Canada	Every 2 years

## SDG 13: CLIMATE ACTION

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	Achieve 40 to 45% greenhouse gas emission reductions below 2005 levels by 2030, and achieve net-zero greenhouse emissions by 2050	<a href="#">Greenhouse gas emissions</a> ▲	CESI	Annual
		<a href="#">Greenhouse gas emissions projections</a>	CESI	Annual
TARGET	Achieve a 25% reduction in national black carbon emissions by 2025, compared to 2013 levels	<a href="#">Black carbon emissions</a>	Environment and Climate Change Canada	Annual
TARGET	The Government of Canada will transition to net-zero carbon and climate-resilient operations by 2050	<a href="#">Percentage change in greenhouse gas emissions from facilities and conventional fleets relative to fiscal year 2005 to 2006</a>	Centre for Greening Government (Treasury Board of Canada Secretariat)	Annual
		<a href="#">Percentage change in greenhouse gas emissions from national safety and security fleets relative to fiscal year 2005 to 2006</a>	Centre for Greening Government (Treasury Board of Canada Secretariat)	Annual

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
CONTEXTUAL		<a href="#">Greenhouse gas concentrations</a>	CESI	Annual
		<a href="#">Land-based greenhouse gas emissions and removals</a>	CESI	Annual
		<a href="#">Proportion of municipal organization who factored climate change adaptation into decision-making processes</a> ▲	Infrastructure Canada Statistics Canada	Occasional
		<a href="#">Temperature change in Canada</a>	CESI	Annual
		<a href="#">Sea ice in Canada</a>	CESI	Every 2 years
		<a href="#">Snow cover</a>	CESI	Every 2 years
		Adaptation indicator in development	Statistics Canada	To be determined
		Extreme heat indicator in development	Environment and Climate Change Canada	To be determined



## SDG 14: LIFE BELOW WATER

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	Conserve 25% of marine and coastal areas by 2025, and 30% by 2030, from 13.8% recognized as conserved as of the end of 2020 in support of the commitment to work to halt and reverse nature loss by 2030 in Canada, and achieve a full recovery for nature by 2050	<a href="#">Canada's conserved areas</a> ▲	CESI	Annual
TARGET	By 2026, at least 55% of Canada's key fish stocks are in the Cautious and Healthy zone	<a href="#">Status of key fish stocks</a>	CESI	Annual
		<a href="#">Sustainable fish harvest</a> ▲	CESI	Annual
CONTEXTUAL		<a href="#">Eelgrass in Canada</a>	CESI	Every 3 years
		<a href="#">Marine pollution spills</a>	CESI	Every 3 years
		<a href="#">Monitoring disposal at sea</a>	CESI	Every 3 years
		<a href="#">Shellfish harvest area quality</a>	CESI	Every 2 years

## SDG 15: LIFE ON LAND

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	Conserve 25% of Canada's land and inland waters by 2025, working toward 30% by 2030, from 12.5% recognized as conserved as of the end of 2020 in support of the commitment to work to halt and reverse nature loss by 2030 in Canada, and achieve a full recovery for nature by 2050	<a href="#">Canada's conserved areas</a> ▲	CESI	Annual
TARGET	Establish 10 new national parks and 10 new national marine conservation areas (NMCAs) in the next 5 years, working with Indigenous communities on co-management agreements for these national parks and NMCAs	Establishment of new national parks and national marine conservation areas	Parks Canada	Annual
TARGET	Between 2023 and 2026, maintain Canada's annual timber harvest at or below sustainable wood supply levels	<a href="#">Sustainability of timber harvest</a>	CESI	Annual
TARGET	By 2026, increase the percentage of species at risk listed under federal law that exhibit population trends that are consistent with recovery strategies and management plans to 60%, from a baseline of 42% in 2019	<a href="#">Species at risk population trends</a> ▲	CESI	Annual

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
TARGET	By 2026, maintain or improve the proportion of species that are ranked as secure that remain secure or apparently secure from a baseline of 80% in 2015	<a href="#">Status of wild species</a> ▲	CESI	Every 5 years
TARGET	By 2030, increase the percentage of migratory bird species whose populations sizes fall within an acceptable range—neither too low nor too high—to 70% from a baseline of 57% in 2016	<a href="#">Population status of Canada's migratory birds</a>	CESI	Every 5 years
TARGET	By 2030, Indigenous peoples participate in 90% of migratory bird monitoring and research projects	Participation of Indigenous peoples in migratory bird monitoring and research projects	Environment and Climate Change Canada	To be determined
CONTEXTUAL		<a href="#">Canadian forest area</a>	Natural Resources Canada	Annual
		<a href="#">Canadian species index</a>	CESI	Every 3 years
		<a href="#">Changes in the status of wildlife species at risk</a>	CESI	Annual
		<a href="#">Deforestation and afforestation</a>	Natural Resources Canada	Annual
		<a href="#">Ecological integrity of national parks</a>	CESI	Annual
		<a href="#">Extent of Canada's wetlands</a>	CESI	Every 5 years
		<a href="#">Trends in Canada's bird populations</a>	CESI	Every 5 years

## SDG 16: PEACE, JUSTICE AND STRONG INSTITUTIONS

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
<b>TARGET</b>	By 2026, maintain the annual percentage of non-compliance with environmental and wildlife laws and regulations that are addressed by enforcement action at 70%	Percentage of non-compliance with environmental and wildlife laws and regulations that are addressed by enforcement action	Environment and Climate Change Canada	To be determined
<b>TARGET</b>	By March 31, 2026, restore and/or enhance a total of 5,000 hectares of natural environment through Environmental Damages Fund projects, from a baseline of 568 hectares in 2018	<a href="#">Area (in hectares) where natural environments are restored and/or enhanced</a>	Environment and Climate Change Canada	Annual
<b>CONTEXTUAL</b>		Percentage of Commissioner of the Environment and Sustainable Development audits and evaluations reviewed by parliamentarians	Office of the Auditor General of Canada	To be determined

## SDG 17: PARTNERSHIPS FOR THE GOALS

INDICATOR TYPE	TARGET	INDICATOR	SOURCE	UPDATE CYCLE
<b>TARGET</b>	Implement Canada's climate finance commitment of \$5.3 billion over 5 years, with at least 40% of funding going toward climate adaptation and at least 20% to projects that leverage nature-based climate solutions and projects that contribute biodiversity co-benefits	Delivery of Canada's climate finance commitment	Environment and Climate Change Canada	Annual
<b>CONTEXTUAL</b>		Amount of Canadian international assistance that addresses climate change	Global Affairs Canada	Annual
		Number of international engagements and commitments that advance Canada's priorities on environment, climate change and clean technology	Natural Resources Canada	Annual



# ANNEX 3: RESPONSIBILITIES OF FEDERAL ORGANIZATIONS

The draft 2022 to 2026 Federal Sustainable Development Strategy includes specific, measurable and time-bound targets linked to the 17 Sustainable Development Goals. Targets are supported by short-term milestones and implementation strategies. Actions within an implementation strategy may directly contribute to a target or contribute to the broader FSDS goal.

While the Federal Sustainable Development Strategy provides a framework for action across government, specific commitments will be included in departmental sustainable development strategies. Each federal organization included in the Schedule of the *Federal Sustainable Development Act* is required to prepare its own departmental sustainable development strategy, which must be tabled within one year of the Federal Sustainable Development Strategy tabling date. Environment and Climate Change Canada's Sustainable Development Office provides guidance to support federal organizations in preparing these strategies.

## SDG 1: NO POVERTY

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>EMERGENCY MANAGEMENT AND DISASTER RISK REDUCTION</b>		
<b>TARGET</b>	By March 2023, 55% of Canadians are aware of disaster risks facing their household	Minister of Public Safety Minister of Emergency Preparedness
<b>ACTION</b>	Conduct research and analysis on emergency preparedness	Natural Resources Canada Public Safety Canada
<b>ACTION</b>	Enhance public awareness of preparedness for natural disasters	Public Safety Canada
<b>ACTION</b>	Provide space-based data for emergency management	Natural Resources Canada
<b>ACTION</b>	Support emergency preparedness in Indigenous communities	Indigenous Services Canada
<b>ACTION</b>	Support transboundary climate risk management	Canada Border Service Agency
<b>ACTION</b>	Work with partners on emergency management and disaster risk reduction	Health Canada Indigenous Services Canada Infrastructure Canada Public Safety Canada
<b>MILESTONE</b>	Issue National Risk Profile reports	Public Safety Canada

## SDG 2: ZERO HUNGER

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>SUSTAINABLE FOOD SYSTEMS</b>		
<b>TARGET</b>	By 2026, maintain 90% compliance with <i>Fisheries Act</i> regulations related to aquaculture	Minister of Fisheries, Oceans and the Canadian Coast Guard
<b>TARGET</b>	By 2030, support improvement in the environmental performance of the agriculture sector by achieving a score of 71 or higher for the Index of Agri-Environmental Sustainability	Minister of Agriculture and Agri-Food
<b>ACTION</b>	Enhance Indigenous and northern food security	Canadian Northern Economic Development Agency Crown-Indigenous Relations and Northern Affairs Canada
<b>ACTION</b>	Ensure the resilience of Canada's food system	Agriculture and Agri-Food Canada Canada Border Services Agency
<b>ACTION</b>	Support natural climate solutions in Canada	Agriculture and Agri-Food Canada
<b>ACTION</b>	Support sustainable agriculture	Agriculture and Agri-Food Canada Environment and Climate Change Canada
<b>ACTION</b>	Support sustainable aquaculture	Fisheries and Oceans Canada
<b>MILESTONE</b>	Develop a Canadian Agri-Environmental Strategy	Agriculture and Agri-Food Canada
<b>MILESTONE</b>	Improve the affordability of nutritious food	Crown-Indigenous Relations and Northern Affairs Canada
<b>MILESTONE</b>	Increase support through the Northern Isolated Community Initiatives Fund	Canadian Northern Economic Development Agency
<b>MILESTONE</b>	Promote and support Canadian Agricultural Partnership Policy Framework	Agriculture and Agri-Food Canada
<b>MILESTONE</b>	Reduce nitrous oxide emissions in the agriculture sector	Agriculture and Agri-Food Canada
<b>MILESTONE</b>	Support Indigenous self-determination through food cultures and ways of living	Crown-Indigenous Relations and Northern Affairs Canada

## SDG 3: GOOD HEALTH AND WELL-BEING

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>AIR QUALITY</b>		
<b>TARGET</b>	Increase the percentage of the population living in areas where air pollutant concentrations are less than or equal to the Canadian Ambient Air Quality Standards from 60% in 2005 to 85% in 2030	Minister of Environment and Climate Change Minister of Health
<b>ACTION</b>	Develop, administer and enforce measures addressing air pollution	Environment and Climate Change Canada Health Canada Transport Canada
<b>ACTION</b>	Inform Canadians about air quality	Environment and Climate Change Canada Health Canada
<b>ACTION</b>	Research the impacts of air pollution	Environment and Climate Change Canada Health Canada National Research Council Canada Transport Canada
<b>ACTION</b>	Work with partners to address air quality	Environment and Climate Change Canada Health Canada
<b>MILESTONE</b>	Maintain reduced air pollutant emission levels	Environment and Climate Change Canada
<b>MILESTONE</b>	Strengthen Canadian Ambient Air Quality Standards	Environment and Climate Change Canada Health Canada
<b>SOUND MANAGEMENT OF CHEMICALS AND CONTAMINATED SITES</b>		
<b>TARGET</b>	By 2024, 100% of the 4,363 existing chemicals that were prioritized under the Chemicals Management Plan have been addressed	Minister of Environment and Climate Change Minister of Health
<b>TARGET</b>	By March 31, 2025, 60% of Federal Contaminated Sites Action Plan eligible sites are closed or in long-term monitoring	Minister of Environment and Climate Change

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>ACTION</b>	Address contaminated sites	Canada Border Services Agency Correctional Service Canada Crown-Indigenous Relations and Northern Affairs Canada Environment and Climate Change Canada Fisheries and Oceans Canada Health Canada Indigenous Services Canada Innovation, Science and Economic Development Canada The Jacques Cartier and Champlain Bridges Inc. National Capital Commission National Defence National Research Council Canada Parks Canada Public Service and Procurement Canada Transport Canada
<b>ACTION</b>	Assess and manage risks from chemicals	Environment and Climate Change Canada Health Canada
<b>ACTION</b>	Continue review of pesticides	Health Canada
<b>ACTION</b>	Inform and increase understanding of harmful substances	Canada Border Services Agency Crown-Indigenous Relations and Northern Affairs Canada Environment and Climate Change Canada Health Canada Transport Canada
<b>ACTION</b>	Work with partners to reduce the risks of harmful substances	Environment and Climate Change Canada Health Canada

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
MILESTONE	Implement the Chemicals Management Plan	Environment and Climate Change Canada Health Canada
MILESTONE	Implement the Federal Contaminated Sites Action Plan phase IV	Environment and Climate Change Canada
MILESTONE	Reduce environmental liability	Environment and Climate Change Canada

#### SDG 4: QUALITY EDUCATION

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>SUSTAINABLE DEVELOPMENT INFORMATION</b>		
TARGET	By 2026, increase the number of Canadians accessing climate information through the Canadian Centre for Climate Services from a baseline of 200,815 visits to the portals in 2021	Minister of Environment and Climate Change
TARGET	By 2026, increase the number of Canadians accessing environmental sustainability information through the Canadian Environmental Sustainability Indicators website, and through the Canadian Indicator Framework portal, to 260,000 visits from a baseline of 239,188 visits in 2020	Minister of Environment and Climate Change
ACTION	Promote environmental knowledge and data sharing	Fisheries and Oceans Canada Environment and Climate Change Canada
ACTION	Provide information to help consumers make more sustainable choices	Environment and Climate Change Canada Natural Resources Canada
ACTION	Provide science and knowledge to inform ambitious climate action	Agriculture and Agri-Food Canada Crown-Indigenous Relations and Northern Affairs Canada Environment and Climate Change Canada Fisheries and Oceans Canada Natural Resources Canada Statistics Canada



FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
MILESTONE	Implement an environmental marketing campaign	Environment and Climate Change Canada
MILESTONE	Roll out the Science Literacy Promotion Initiative	Environment and Climate Change Canada
<b>SUSTAINABLE DEVELOPMENT RESEARCH</b>		
TARGET	Increase Canada's ranking for Average Relative Citation in natural sciences, engineering, and life sciences to the top 10 of OECD countries by 2025	Minister of Innovation, Science and Industry
ACTION	Promote better environmental decision making	Statistics Canada
ACTION	Work with partners on sustainable development research initiatives	Canadian Institutes of Health Research Environment and Climate Change Canada Natural Sciences and Engineering Research Council of Canada Social Sciences and Humanities Research Council of Canada
MILESTONE	Establish the national freshwater data strategy	Environment and Climate Change Canada
MILESTONE	Establish the national freshwater science agenda	Environment and Climate Change Canada
<b>TRAINING AND SKILLS IN SUSTAINABLE DEVELOPMENT</b>		
TARGET	175,000 students in science, technology, engineering and mathematics (STEM) graduate in Canada by December 2025	Minister of Innovation, Science and Industry
ACTION	Increase the number of young Canadians pursuing skills training or careers in environmental sectors	Employment and Social Development Canada
ACTION	Support youth skill development in environmental sectors	Canadian Institutes of Health Research Innovation, Science and Economic Development Canada Employment and Social Development Canada Environment and Climate Change Canada Natural Sciences and Engineering Research Council of Canada Social Sciences and Humanities Research Council of Canada

## SDG 5: GENDER EQUALITY

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>WOMEN'S PARTICIPATION IN THE ENVIRONMENTAL AND CLEAN TECHNOLOGY SECTOR</b>		
<b>TARGET</b>	By 2026, increase the number of women employed in the clean technology sector from a baseline of 86,694 in 2019	Minister of Innovation, Science and Industry
<b>ACTION</b>	Disaggregate data	Innovation, Science and Economic Development Canada Statistics Canada
<b>ACTION</b>	Invest in women	Indigenous Services Canada Innovation, Science and Economic Development Canada
<b>ACTION</b>	Support skills and training	Environment and Climate Change Canada Global Affairs Canada Natural Resources Canada
<b>MILESTONE</b>	Support GBA Plus across the Government of Canada	Indigenous Services Canada

## SDG 6: CLEAN WATER AND SANITATION

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>CLEAN AND SAFE WATER</b>		
<b>TARGET</b>	By 2026, complete all actions required to restore 6 Areas of Concern in the Great Lakes	Minister of Environment and Climate Change
<b>TARGET</b>	By 2026, report on all 9 objectives to be achieved for the Great Lakes	Minister of Environment and Climate Change
<b>TARGET</b>	By 2027, action plans are in place to advance restoration and protection of major lakes and rivers in Canada	Minister of Environment and Climate Change

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>TARGET</b>	By March 2030, 85% of wastewater systems on reserve achieve effluent quality standards	Minister of Environment and Climate Change
<b>TARGET</b>	By December 2040, 100% of wastewater systems achieve effluent quality standards	Minister of Environment and Climate Change
<b>ACTION</b>	Develop knowledge of water-related sustainability in Canada	Agriculture and Agri-Food Canada Environment and Climate Change Canada
<b>ACTION</b>	Develop knowledge to better understand the St. Lawrence River ecosystem	Environment and Climate Change Canada
<b>ACTION</b>	Implement the <i>Wastewater Systems Effluent Regulations</i>	Environment and Climate Change Canada Indigenous Services Canada
<b>ACTION</b>	Implement water quality and ecosystem partnerships programs	Agriculture and Agri-Food Canada Environment and Climate Change Canada Natural Resources Canada
<b>ACTION</b>	Work with partners on drinking water quality	Health Canada
<b>MILESTONE</b>	Create a new Canada Water Agency	Agriculture and Agri-Food Canada Environment and Climate Change Canada (lead) Natural Resources Canada
<b>MILESTONE</b>	Complete approved water and wastewater projects	Infrastructure Canada
<b>MILESTONE</b>	Renew the Freshwater Action Plan	Environment and Climate Change Canada
<b>MILESTONE</b>	Reduce risk to public water systems and public wastewater systems on reserve	Indigenous Services Canada
<b>MILESTONE</b>	Publish the State of the St. Lawrence River report	Environment and Climate Change Canada
<b>MILESTONE</b>	Publish the Great Lakes Progress Report of the Parties	Environment and Climate Change Canada
<b>MILESTONE</b>	Publish the State of the Great Lakes report	Environment and Climate Change Canada

## SDG 7: AFFORDABLE AND CLEAN ENERGY

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>RENEWABLE AND NON-EMITTING SOURCES OF ELECTRICITY</b>		
<b>TARGET</b>	By 2030, 90%, and in the long term 100% of Canada's electricity is generated from renewable and non-emitting sources	Minister of Natural Resources
<b>TARGET</b>	Consult on the development of a Clean Electricity Standard to achieve a net-zero clean electricity grid by 2035 and achieve a 100% net-zero emitting electricity future	Minister of Environment and Climate Change
<b>ACTION</b>	Implement and enforce regulations and legislation	Canada Energy Regulator
<b>ACTION</b>	Invest in research, development, and demonstration of clean energy technologies	National Research Council Canada Natural Resources Canada
<b>ACTION</b>	Play a leading role to promote clean and renewable energy	Environment and Climate Change Canada Natural Resources Canada
<b>ACTION</b>	Support renewable energy deployment	Crown-Indigenous Relations and Northern Affairs Canada Indigenous Services Canada Natural Resources Canada
<b>ACTION</b>	Support voluntary action to adopt clean energy technologies	Department of Finance Canada Natural Resources Canada
<b>ACTION</b>	Work with partners on clean and renewable energy	Atlantic Canada Opportunities Agency Canada Energy Regulator Crown-Indigenous Relations and Northern Affairs Canada Indigenous Services Canada Natural Resources Canada
<b>MILESTONE</b>	Develop regulations on offshore renewable energy	Natural Resources Canada

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
MILESTONE	Demonstrate and deploy the next generation of smart grids	Natural Resources Canada
MILESTONE	Install renewable energy in Indigenous and northern communities	Natural Resources Canada
MILESTONE	Provide access to efficient sources of electricity	Infrastructure Canada
MILESTONE	Support smart renewables	Natural Resources Canada
ENERGY EFFICIENCY		
TARGET	By 2030, 600 petajoules of total annual energy savings will be achieved as a result of adoption of energy efficiency codes, standards and practices from a baseline savings of 20.0 petajoules in 2017 to 2018	Minister of Natural Resources
ACTION	Develop and implement energy efficiency codes and regulations	National Research Council Canada Natural Resources Canada
ACTION	Invest in research, development, and demonstration of energy efficiency technologies	Natural Resources Canada
ACTION	Support deployment of energy efficiency technologies and practices	Natural Resources Canada
ACTION	Support voluntary action	Natural Resources Canada
ACTION	Work with domestic and international partners on energy efficiency	Canada Energy Regulator Environment and Climate Change Canada Natural Resources Canada
MILESTONE	Demonstrate energy-efficient and net-zero energy building technologies	Natural Resources Canada
MILESTONE	Promote ENERGY STAR Portfolio Manager	Natural Resources Canada
MILESTONE	Publish energy efficiency regulations	Natural Resources Canada
MILESTONE	Support greener homes	Natural Resources Canada
CLEAN FUELS		



FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>TARGET</b>	By 2030, grow the production and use of clean fuels while continually reducing life-cycle carbon intensity over the long-term	Minister of Natural Resources
<b>ACTION</b>	Apply clean fuel regulations	Natural Resources Canada
<b>ACTION</b>	Deliver the Clean Fuels Fund	Natural Resources Canada
<b>ACTION</b>	Develop and update codes and standards	Environment and Climate Change Canada Natural Resources Canada Canada Energy Regulator
<b>ACTION</b>	Invest in research, development, and demonstration of clean fuels	Natural Resources Canada
<b>ACTION</b>	Work with stakeholders to advance the Hydrogen Strategy for Canada	Natural Resources Canada
<b>MILESTONE</b>	Develop clean fuel production facilities	Natural Resources Canada
<b>MILESTONE</b>	Develop codes, standards and regulations	Environment and Climate Change Canada Natural Resources Canada
<b>MILESTONE</b>	Support biomass supply chains	Natural Resources Canada

## SDG 8: DECENT WORK AND ECONOMIC GROWTH

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>GREEN JOBS</b>		
<b>TARGET</b>	Achieve 8% growth in jobs in the clean tech products sector by March 31, 2024	Minister of Innovation, Science and Industry
<b>TARGET</b>	Between 2022 and 2026, 30% of all Sustainable Development Technology Canada's SD Tech Fund-supported technologies are commercialized annually	Minister of Innovation, Science and Industry
<b>ACTION</b>	Develop our knowledge of clean technologies	Employment and Social Development Canada  Innovation, Science and Economic Development Canada  Natural Resources Canada
<b>ACTION</b>	Support workers, businesses, and communities	Atlantic Canada Opportunities Agency  Canadian Northern Economic Development Agency  Economic Development Agency of Canada for Québec Regions  Environment and Climate Change Canada  Federal Economic Development Agency for Southern Ontario  Federal Economic Development Initiative for Northern Ontario  Fisheries and Oceans Canada  Innovation, Science and Economic Development Canada  Parks Canada  Pacific Economic Development Canada  Prairies Economic Development Canada

## SDG 9: INDUSTRY, INNOVATION AND INFRASTRUCTURE

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>GREEN INFRASTRUCTURE AND INNOVATION</b>		
<b>TARGET</b>	By March 31, 2024, 1,000 electric vehicle chargers, 22 natural gas stations, and 15 hydrogen stations along major highways, freight corridors and key metropolitan centres are completed	Minister of Natural Resources
<b>TARGET</b>	By March 31, 2026, 33,500 new electric vehicle chargers in public places, on-street, at apartment buildings, retail outlets, and the workplace, as well as 10 new hydrogen stations are completed	Minister of Natural Resources
<b>TARGET</b>	By fiscal year 2027 to 2028, the federal share of the value of green infrastructure projects approved under the Invest in Canada plan will reach \$26.9 billion	Minister of Intergovernmental Affairs, Infrastructure and Communities
<b>ACTION</b>	Attract and scale-up sustainable finance in Canada	Environment and Climate Change Canada Department of Finance Canada
<b>ACTION</b>	Develop and implement climate-resilient codes and standards	Infrastructure Canada Innovation, Science and Economic Development Canada National Research Council Standards Council of Canada
<b>ACTION</b>	Invest in deployment and adoption of clean technologies	Innovation, Science and Economic Development Canada Natural Resources Canada National Research Council of Canada
<b>ACTION</b>	Invest in green infrastructure	Infrastructure Canada

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>ACTION</b>	Invest in research, development and demonstration of clean technologies	Innovation, Science and Economic Development Canada Natural Resources Canada
<b>MILESTONE</b>	Deliver standardization strategies	Standards Council of Canada
<b>MILESTONE</b>	Demonstrate electric and hydrogen vehicle infrastructure	Natural Resources Canada
<b>MILESTONE</b>	Enable new and revised codes, standards and guidelines and decision support tools for climate-resilient infrastructure	National Research Council
<b>MILESTONE</b>	Growing business investment in research and development	Innovation, Science and Economic Development Canada
<b>MILESTONE</b>	Publish a Carbon Capture, Utilization and Storage Strategy	Natural Resources Canada
<b>MILESTONE</b>	Publish national model codes	National Research Council
<b>MILESTONE</b>	Support research, development and demonstration of carbon capture, utilization and storage technologies	Natural Resources Canada

## SDG 10: REDUCED INEQUALITIES

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>TAKING ACTION ON INEQUALITY</b>		
<b>TARGET</b>	Between 2022 and 2026, continue to report on an annual basis to Canadians on access to clean drinking water in First Nations communities through Indigenous Services Canada's departmental website as data becomes available	Minister of Indigenous Services
<b>ACTION</b>	Take action towards eliminating remaining long-term drinking water advisories on reserve	Indigenous Services Canada
<b>ACTION</b>	Collaborate and engage with Indigenous peoples	Fisheries and Oceans Canada Impact Assessment Agency of Canada Natural Resources Canada Parks Canada
<b>ACTION</b>	Implement the Disaggregated Data Action Plan to fill data and knowledge gaps on inequalities	Statistics Canada
<b>ACTION</b>	Return fuel charge proceeds equitably through Climate Action Incentive payments and other supports	Environment and Climate Change Canada Department of Finance Canada
<b>ACTION</b>	Support entrepreneurship for Black and Indigenous communities	Indigenous Services Canada Innovation, Science and Economic Development
<b>ACTION</b>	Support the implementation of the United Nations Declaration on the Rights of Indigenous Peoples	Crown-Indigenous Relations and Northern Affairs Canada Environment and Climate Change Canada Fisheries and Oceans Canada Natural Resources Canada Parks Canada
<b>MILESTONE</b>	Champion the role of Indigenous peoples in the Arctic Council	Crown-Indigenous Relations and Northern Affairs Canada
<b>MILESTONE</b>	Collaborate with Indigenous peoples in fisheries management	Fisheries and Oceans Canada
<b>MILESTONE</b>	Increase participation of Indigenous communities, organizations or governments in Canada's data governance and knowledge economy	Natural Resources Canada
<b>MILESTONE</b>	Publish the National Pollutant Release Inventory Indigenous Series	Environment and Climate Change Canada



## SDG 11: SUSTAINABLE CITIES AND COMMUNITIES

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>PUBLIC TRANSIT AND ACTIVE TRANSPORTATION</b>		
<b>TARGET</b>	By 2030, 22% of commuters use public transit or active transportation	Minister of Intergovernmental Affairs, Infrastructure and Communities
<b>ACTION</b>	Invest in public transit and active transportation	Infrastructure Canada  The Jacques Cartier and Champlain Bridges Inc.
<b>MILESTONE</b>	Support the purchase of zero-emission buses	Infrastructure Canada
<b>GREEN SPACES, CULTURAL AND NATURAL HERITAGE</b>		
<b>TARGET</b>	Establish a new National Urban Parks policy and designate national urban parks as part of a network, with a target of 15 new national urban parks by 2030	Minister of Environment and Climate Change
<b>TARGET</b>	By 2026, maintain or increase the number of Canadians that get out into nature, relative to the 2018 to 2019 baseline	Minister of Environment and Climate Change
<b>TARGET</b>	By March 31, 2022, increase annual visitation to the 10 national wildlife areas that are part of the Connecting Canadians to Nature Initiative by 25%, from a baseline of 220,050 in 2015 when the program was launched	Minister of Environment and Climate Change
<b>ACTION</b>	Enhance visitor experience in parks and historic places	Parks Canada
<b>ACTION</b>	Promote access to green space, cultural and natural heritage	The Jacques Cartier and Champlain Bridges Inc.  Parks Canada  National Battlefields Commission  National Capital Commission
<b>ACTION</b>	Promote public engagement in green spaces, parks and historic places	Environment and Climate Change Canada  Parks Canada  National Capital Commission
<b>ACTION</b>	Work with partners on conservation activities	Environment and Climate Change Canada  Parks Canada
<b>MILESTONE</b>	Maintain access to Battlefields Park	National Battlefields Commission

## SDG 12: RESPONSIBLE PRODUCTION AND CONSUMPTION

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>WASTE MANAGEMENT</b>		
<b>TARGET</b>	Reduce the amount of waste Canadians send to disposal from a baseline of 699 kilograms per person in 2014 to 490 kilograms per person by 2030 (a 30% reduction); and to 350 kilograms per person by 2040 (a 50% reduction)	Minister of Environment and Climate Change (as federal lead in the Canadian Council of Ministers of the Environment)
<b>TARGET</b>	Plastic packaging in Canada contains at least 50% recycled content by 2030, where feasible	Minister of Environment and Climate Change
<b>TARGET</b>	By 2032, reduce single-use plastics that are found in the environment, are not recycled, and have readily available alternatives (for example, checkout bags) entering the waste stream by 4% and entering the environment as pollution by 7%	Minister of Environment and Climate Change
<b>ACTION</b>	Advance circular economy in Canada	Environment and Climate Change Canada
<b>ACTION</b>	Deliver efficient food systems	Agriculture and Agri-food Canada Environment and Climate Change Canada
<b>ACTION</b>	Research innovative solutions for plastics	Environment and Climate Change Canada Transport Canada
<b>MILESTONE</b>	Monitor Canada's ocean disposal sites	Environment and Climate Change Canada
<b>MILESTONE</b>	Measure food loss and waste	Agriculture and Agri-Food Canada Environment and Climate Change Canada
<b>MILESTONE</b>	Use of mining waste to produce critical minerals	Natural Resources Canada
<b>ZERO-EMISSION VEHICLES</b>		
<b>TARGET</b>	100% of new light-duty vehicle sales are required to be zero-emission vehicles by 2035, with an interim sales target of at least 50% by 2030	Minister of Environment and Climate Change Minister of Transport
<b>TARGET</b>	100% of medium- and heavy-duty vehicles sales are zero emission by 2040, where feasible	Minister of Environment and Climate Change Minister of Transport
<b>ACTION</b>	Develop regulations that support zero-emission vehicle sales	Environment and Climate Change Canada

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>ACTION</b>	Make zero-emission vehicles more affordable and improve supply	Environment and Climate Change Canada Transport Canada
<b>ACTION</b>	Work with partners in the transportation sector	Innovation, Science and Economic Development Canada Natural Resources Canada Transport Canada
<b>MILESTONE</b>	Develop a strategy to decarbonize on-road freight	Transport Canada

#### SDG 13: CLIMATE ACTION

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>CLIMATE CHANGE ADAPTATION AND MITIGATION</b>		
<b>TARGET</b>	Achieve 40 to 45% greenhouse gas emission reductions below 2005 levels by 2030, and achieve net-zero greenhouse gas emissions by 2050	Minister of Environment and Climate Change - Supported by whole-of-government implementation
<b>TARGET</b>	Achieve a 25% reduction in national black carbon emissions by 2025, compared to 2013 levels	Minister of Environment and Climate Change
<b>ACTION</b>	Implement the <i>Canadian Net-Zero Emissions Accountability Act</i>	Environment and Climate Change Canada
<b>ACTION</b>	Implement Canada's 2030 Emissions Reduction Plan	Environment and Climate Change Canada
<b>ACTION</b>	Support natural climate solutions in Canada as part of the Strengthened Climate Plan	Environment and Climate Change Canada Natural Resources Canada Parks Canada
<b>ACTION</b>	Continue to implement the Pan-Canadian Framework on Clean Growth and Climate Change	Environment and Climate Change Canada - Supported by whole-of-government implementation
<b>ACTION</b>	Continue to implement the Strengthened Climate Plan	Environment and Climate Change Canada - Supported by whole-of-government implementation
<b>ACTION</b>	Adopt an integrated climate lens for all federal decision making	Environment and Climate Change Canada

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
MILESTONE	Establish a 2030 Emissions Reduction Plan	Environment and Climate Change Canada
MILESTONE	Ensure a strengthened price on carbon pollution is in place in Canada	Environment and Climate Change Canada
MILESTONE	Implement evidence-based measures to protect health from extreme heat in health regions	Health Canada
MILESTONE	Release a national adaptation strategy for Canada	Environment and Climate Change Canada Natural Resources Canada
<b>FEDERAL LEADERSHIP ON GREENHOUSE GAS EMISSIONS REDUCTIONS AND CLIMATE RESILIENCE</b>		
TARGET	The Government of Canada will transition to net-zero carbon and climate-resilient operations by 2050	All ministers
ACTION	Implement the Greening Government Strategy through measures that reduce greenhouse gas emissions, improve climate resilience, and green the government's overall operations	All federal organizations
ACTION	Apply a greenhouse gas reduction life-cycle cost analysis for major building retrofits	All federal organizations owning real property
ACTION	Assess and reduce risks posed by climate change to federal assets, services and operations	All federal organizations owning real property
ACTION	Modernize through net-zero carbon buildings	All federal organizations owning real property
ACTION	Purchase low-carbon intensity fuels for air and marine fleets	All federal organizations with significant air and marine fleets, specifically:  National Defence  Royal Canadian Mounted Police  Fisheries and Oceans Canada (Canadian Coast Guard)  Transport Canada
ACTION	Purchase zero emission vehicles	All federal organizations
ACTION	Strengthen green procurement criteria	All federal organizations
MILESTONE	Achieve total clean electricity use in federal real property	All federal organizations owning real property, and internationally where locally feasible

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
MILESTONE	Develop national safety and security operational fleet decarbonization plans	National Defence Royal Canadian Mounted Police Fisheries and Oceans Canada (Canadian Coast Guard)
MILESTONE	Develop a zero-carbon, climate-resilient office leasing federal portfolio	Public Service and Procurement Canada
MILESTONE	Identify and incorporate awareness of climate-change-related risks into federal planning	All federal organizations
MILESTONE	Reduce greenhouse gas emissions in federal real property and conventional fleet	All federal organizations owning real property and conventional fleets over 50 vehicles
MILESTONE	Transform the federal light-duty fleet	All federal organizations owning conventional fleets

#### SDG 14: LIFE BELOW WATER

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>OCEAN PROTECTION AND CONSERVATION</b>		
TARGET	Conserve 25% of marine and coastal areas by 2025, and 30% by 2030, from 13.8% recognized as conserved as of the end of 2020 in support of the commitment to work to halt and reverse nature loss by 2030 in Canada, and achieve a full recovery for nature by 2050	Minister of Fisheries, Oceans and the Canadian Coast Guard
ACTION	Build knowledge of coastal and marine ecosystems and marine protected areas	Environment and Climate Change Canada Fisheries and Oceans Canada National Research Council Canada Natural Resources Canada Parks Canada Transport Canada
ACTION	Implement new protection standards in marine protected areas	Fisheries and Oceans Canada Environment and Climate Change Canada



FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>ACTION</b>	Protect and manage marine and coastal areas	Environment and Climate Change Canada  Fisheries and Oceans Canada  Natural Resources Canada  Parks Canada  Transport Canada
<b>ACTION</b>	Reduce marine litter and support the Canada-wide Strategy on Zero Plastic Waste	Crown-Indigenous Relations and Northern Affairs Canada  Environment and Climate Change Canada  Fisheries and Oceans Canada
<b>ACTION</b>	Use legislation and regulations to protect coasts and oceans	Canada Border Services Agency  Environment and Climate Change Canada  Fisheries and Oceans Canada  Natural Resources Canada  Parks Canada  Transport Canada
<b>ACTION</b>	Work with partners to protect and restore coastal and marine ecosystems	Environment and Climate Change Canada  Fisheries and Oceans Canada  Natural Resources Canada  Parks Canada  Transport Canada
<b>MILESTONE</b>	Further develop Canada's Ghost Gear Program	Fisheries and Oceans Canada
<b>MILESTONE</b>	Patrol for marine spills	Transport Canada
<b>OCEAN SUSTAINABILITY</b>		
<b>TARGET</b>	By 2026, at least 55% of Canada's key fish stocks are in the Cautious and Healthy zone	Minister of Fisheries, Oceans and Canadian Coast Guard
<b>ACTION</b>	Build knowledge to support sustainable fisheries	Environment and Climate Change Canada  Fisheries and Oceans Canada
<b>ACTION</b>	Implement policies for sustainable fisheries	Fisheries and Oceans Canada

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>ACTION</b>	Support the recovery and protection of Canada's endangered whales	Environment and Climate Change Canada  Fisheries and Oceans Canada  Transport Canada
<b>MILESTONE</b>	Regulating fish stocks provisions	Fisheries and Oceans Canada
<b>MILESTONE</b>	Implement the Sustainable Fisheries Framework	Fisheries and Oceans Canada

#### SDG 15: LIFE ON LAND

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>CONSERVATION OF LAND AND FRESH WATER</b>		
<b>TARGET</b>	Conserve 25% of Canada's land and inland waters by 2025, working toward 30% by 2030, from 12.5% recognized as conserved as of the end of 2020 in support of the commitment to work to halt and reverse nature loss by 2030 in Canada, and achieve a full recovery for nature by 2050	Minister of Environment and Climate Change
<b>TARGET</b>	Establish 10 new national parks and 10 new national marine conservation areas (NMCAs) in the next 5 years, working with Indigenous communities on co-management agreements for these national parks and NMCAs	Minister of Environment and Climate Change
<b>TARGET</b>	Between 2023 and 2026, maintain Canada's annual timber harvest at or below sustainable wood supply levels	Minister of Natural Resources
<b>ACTION</b>	Better understand lands and forests	Environment and Climate Change Canada  The Jacques Cartier and Champlain Bridges Inc.  Natural Resources Canada
<b>ACTION</b>	Conserve natural spaces	Environment and Climate Change Canada  Parks Canada
<b>ACTION</b>	Promote participation in Canada's forest sector and support the transition to a sustainable economy	Natural Resources Canada

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>ACTION</b>	Work with domestic and international partners	Environment and Climate Change Canada Natural Resources Canada Parks Canada
<b>ACTION</b>	Work with Indigenous peoples	Environment and Climate Change Canada Fisheries and Oceans Canada Parks Canada
<b>MILESTONE</b>	Designate ecological corridors	Parks Canada
<b>MILESTONE</b>	Establish new protected areas	Environment and Climate Change Canada
<b>MILESTONE</b>	Finalize Nature Agreements	Environment and Climate Change Canada
<b>MILESTONE</b>	Make progress on Canada's commitment to area-based conservation	Environment and Climate Change Canada
<b>SPECIES PROTECTION AND RECOVERY</b>		
<b>TARGET</b>	By 2026, increase the percentage of species at risk listed under federal law that exhibit population trends that are consistent with recovery strategies and management plans to 60%, from a baseline of 42% in 2019	Minister of Environment and Climate Change Minister of Fisheries, Oceans and the Canadian Coast Guard
<b>TARGET</b>	By 2026, maintain or improve the proportion of species that are ranked as secure remain secure or apparently secure from a baseline of 80% in 2015	Minister of Environment and Climate Change
<b>TARGET</b>	By 2030, increase the percentage of migratory bird species whose populations sizes fall within an acceptable range—neither too low nor too high— to 70% from a baseline of 57% in 2016	Minister of Environment and Climate Change
<b>TARGET</b>	By 2030, Indigenous peoples participate in 90% of migratory bird monitoring and research projects	Minister of Environment and Climate Change
<b>ACTION</b>	Deliver enhanced conservation action	Environment and Climate Change Canada The Jacques Cartier and Champlain Bridges Inc. Parks Canada
<b>ACTION</b>	Develop a pan-Canadian approach to wildlife health with partners	Environment and Climate Change Canada

<b>ACTION</b>	Enhance foundational knowledge of species, habitats and ecosystems with partners	Environment and Climate Change Canada  Fisheries and Oceans Canada  Parks Canada  Natural Resources Canada
<b>ACTION</b>	Establish a principle of no net loss of biodiversity	Environment and Climate Change Canada
<b>ACTION</b>	Implement, innovate and modernize the regulatory and policy framework and tools to protect species at risk, other fish and fish habitat and migratory birds	Environment and Climate Change Canada  Fisheries and Oceans Canada
<b>ACTION</b>	Implement the aquatic and terrestrial pan-Canadian approaches to transforming species at risk conservation in Canada with partners	Environment and Climate Change Canada  Fisheries and Oceans Canada  Parks Canada
<b>ACTION</b>	Prevent, detect, and respond to, control and manage invasive alien species	Canada Border Services Agency  Canadian Food Inspection Agency  Environment and Climate Change Canada  Fisheries and Oceans Canada  Natural Resources Canada  Parks Canada
<b>ACTION</b>	Uphold international commitments related to wildlife	Environment and Climate Change Canada  Fisheries and Oceans Canada
<b>ACTION</b>	Work with partners to implement and modernize technology for monitoring international wildlife trade to better detect invasive alien species, vectors of diseases and endangered species at Canada's international borders	Canada Border Services Agency  Environment and Climate Change Canada
<b>MILESTONE</b>	Collaborating on protection and recovery actions for terrestrial species at risk	Environment and Climate Change Canada  Parks Canada
<b>MILESTONE</b>	Develop and implement a no net loss policy framework	Environment and Climate Change Canada

<b>MILESTONE</b>	Develop conservation action plans	Environment and Climate Change Canada
<b>MILESTONE</b>	Enhancing protection and recovery actions for aquatic species at risk	Fisheries and Oceans Canada Parks Canada
<b>MILESTONE</b>	Increase the proportion of listed bird species	Environment and Climate Change Canada
<b>MILESTONE</b>	Monitor invasive alien species	Canadian Food Inspection Agency Environment and Climate Change Canada Fisheries and Oceans Canada
<b>MILESTONE</b>	Partnering with provinces and territories	Environment and Climate Change Canada



FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>EFFECTIVE INSTITUTIONS FOR PROMOTING COMPLIANCE WITH ENVIRONMENTAL LAWS AND DELIVERING HIGH-QUALITY IMPACT ASSESSMENTS</b>		
<b>TARGET</b>	By 2026, maintain the annual percentage of non-compliance with environmental and wildlife laws and regulations that are addressed by enforcement action at 70%	Minister of Environment and Climate Change
<b>TARGET</b>	By March 31, 2026, restore and/or enhance a total of 5,000 hectares of natural environment through Environmental Damages Fund projects, from a baseline of 568 hectares in 2018	Minister of Environment and Climate Change
<b>ACTION</b>	Strengthen monitoring and enforcement through innovation	Environment and Climate Change Canada
<b>ACTION</b>	Implement monitoring, inspection and enforcement activities	Environment and Climate Change Canada Fisheries and Oceans Canada Impact Assessment Agency of Canada Transport Canada
<b>ACTION</b>	Use a risk-based approach to enforcement	Environment and Climate Change Canada
<b>ACTION</b>	Foster research to support the implementation of the <i>Impact Assessment Act</i>	Impact Assessment Agency of Canada
<b>ACTION</b>	Meaningfully consult and accommodate Indigenous peoples and consider Indigenous Knowledge in impact assessment processes	Impact Assessment Agency of Canada
<b>ACTION</b>	Provide the public and Indigenous peoples with a voice in impact assessment processes	Impact Assessment Agency of Canada The Jacques Cartier and Champlain Bridges Inc.
<b>ACTION</b>	Support fair and predictable impact assessments	Impact Assessment Agency of Canada Health Canada
<b>MILESTONE</b>	Minimize the adverse effects of projects through impact assessments	Impact Assessment Agency of Canada
<b>MILESTONE</b>	Promote evidence-based decision making that considers public and Indigenous community input, including Indigenous Knowledge	Impact Assessment Agency of Canada

## SDG 17: PARTNERSHIPS FOR THE GOALS

FSDS COMPONENT	TITLE	RESPONSIBLE ORGANIZATION(S)
<b>ENVIRONMENTAL PARTNERSHIPS</b>		
<b>TARGET</b>	Implement Canada's climate finance commitment of \$5.3 billion over 5 years, with at least 40% of funding going toward climate adaptation and at least 20% to projects that leverage nature-based climate solutions and projects that contribute biodiversity co-benefits	Minister of Environment and Climate Change
<b>ACTION</b>	Increase support to and help build capacity in developing countries to adapt to and mitigate climate change	Environment and Climate Change Canada Global Affairs Canada
<b>ACTION</b>	Promote environmental protection in trade agreements and other engagement mechanisms	Environment and Climate Change Canada Global Affairs Canada
<b>ACTION</b>	Work with partners to monitor and protect our ecosystems from space	Canadian Space Agency Environment and Climate Change Canada Natural Resources Canada
<b>ACTION</b>	Work with partners to support a clean energy transition	Environment and Climate Change Canada Global Affairs Canada
<b>MILESTONE</b>	Engage with priority countries and regions	Environment and Climate Change Canada

# ANNEX 4: SUSTAINABLE DEVELOPMENT GOALS

The Sustainable Development Goals (SDGs) are by design integrated and indivisible and balance the 3 dimensions of sustainable development: economic, social and environmental. Building integrated strategies and policies that create connections between the different goals helps to ensure the economy can grow, society can develop, and the environment can be protected all at the same time.

The SDGs are mutually reinforcing. For example, dealing with the threat of climate change impacts how fragile natural resources are managed and used, and achieving food security and improved health outcomes can help to eradicate poverty, reduce inequalities and eliminate barriers to economic growth and social development.

Every goal in the draft 2022 to 2026 Federal Sustainable Development Strategy supports progress on multiple SDGs and helps to advance Canada's implementation of the 2030 Agenda for Sustainable Development.

FSDS CHAPTERS	OTHER SUPPORTED SDGS
Chapter 1: Support Canadians' preparedness for natural disasters and emergencies	SDG 3
	SDG 6
	SDG 9
	SDG 11
	SDG 13
Chapter 2: Ensure Canadians can access safe and healthy food	SDG 1
	SDG 3
	SDG 6
	SDG 12
	SDG 13
	SDG 14
	SDG 15
Chapter 3: Protect Canadians from air pollution and harmful substances	SDG 6
	SDG 11
	SDG 12
	SDG 13
	SDG 14
	SDG 15
Chapter 4: Publicise research, knowledge and data for sustainable development	SDG 1
	SDG 5
	SDG 8
	SDG 12
	SDG 13
Chapter 5: Support Canadian women's participation in the environmental and clean technology sector	All other SDGs

FSDS CHAPTERS	OTHER SUPPORTED SDGs
Chapter 6: Ensure clean and safe water for all Canadians	SDG 2
	SDG 3
	SDG 12
	SDG 14
	SDG 15
	SDG 17
Chapter 7: Help Canadians have access to clean energy	SDG 9
	SDG 12
	SDG 13
Chapter 8: Encourage inclusive and sustainable economic growth in Canada	SDG 5
	SDG 7
	SDG 9
	SDG 11
	SDG 13
	SDG 17
Chapter 9: Foster innovation and support green infrastructure in Canada	SDG 1
	SDG 7
	SDG 8
	SDG 11
	SDG 12
	SDG 13
	SDG 15
Chapter 10: Advance reconciliation with Indigenous peoples and take action to reduce inequality	All other SDGs
Chapter 11: Improve access to transportation, parks, and green spaces, as well as support cultural heritage in Canada	SDG 1
	SDG 3
	SDG 9
	SDG 13
	SDG 15
Chapter 12: Support Canadians in reducing waste, and transitioning to zero-emission vehicles	SDG 2
	SDG 3
	SDG 4
	SDG 8
	SDG 9
	SDG 11
	SDG 13
	SDG 14

FSDS CHAPTERS	OTHER SUPPORTED SDGs
Chapter 13: Take action on climate change and its impacts	SDG 1
	SDG 2
	SDG 3
	SDG 7
	SDG 8
	SDG 9
	SDG 11
	SDG 12
	SDG 14
	SDG 15
Chapter 14: Conserve and protect Canada's oceans	SDG 2
	SDG 6
	SDG 8
	SDG 13
	SDG 15
Chapter 15: Protect and recover species, conserve Canadian biodiversity	SDG 2
	SDG 3
	SDG 6
	SDG 9
	SDG 11
	SDG 12
	SDG 13
	SDG 14
Chapter 16: Enforce environmental laws, manage impacts, and evaluate sustainable development activities	All other SDGs
Chapter 17: Strengthen partnerships to promote global action on climate change and sustainable development	All other SDGs