



Government
of Canada

Gouvernement
du Canada

ACHIEVING A

SUSTAINABLE FUTURE

A FEDERAL SUSTAINABLE DEVELOPMENT STRATEGY FOR CANADA
2016–2019

Canada 

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MESSAGE FROM THE MINISTER

This past February, I asked you to help make our 2016–2019 Federal Sustainable Development Strategy stronger—to help us establish a shared sustainable development vision, improve our goals and targets, and define the actions we will take to create a more sustainable future in Canada.



Your response was overwhelming. In hundreds of insightful and informed comments, you put forward your sustainable development priorities, pointed out the challenges we face, and provided clear and concrete suggestions for developing a more effective strategy.

We heard you.

With the final 2016–2019 strategy, I am pleased to present a new plan that reflects your feedback. It shows what we're doing to make our environment cleaner and greener for all Canadians. It also reflects our Government's commitment to advance reconciliation and renew a nation-to-nation relationship with Indigenous Peoples.

The Strategy includes 13 new aspirational goals for an environmentally sustainable Canada. It outlines federal leadership on climate change and the environment-related 2030 Sustainable Development Goals. It also includes specific and measurable targets, new short-term milestones to ensure we stay on track, and clear action plans that show how we will work toward our targets over the next three years.

But we won't wait three years to update the strategy. Our new approach this time is to continually bring on board our policy decisions as they happen rather than wait three years like in the past. So stay tuned as we continually add to our commitments and actions.

As we move forward to implement our strategy and achieve our goals and targets, I'm asking for your help again. Our agenda is ambitious and your ideas will be invaluable in helping us achieve it. What innovative approaches are you using to advance sustainable development in your community? What new idea could help us meet our targets sooner?

I also ask you to look to the future. In three years, we will renew our strategy again. How can we further refine our vision, and set even more ambitious goals and targets in the next Federal Sustainable Development Strategy?

Tell us by [sending an email](#) or [joining in the discussion online](#). I look forward to continuing the conversation we started and working with you for a more sustainable Canada.

The Honourable Catherine McKenna
Minister of Environment and Climate Change
@ec_minister

EXECUTIVE SUMMARY

The Federal Sustainable Development Strategy (FSDS) is our primary vehicle for sustainable development planning and reporting. It sets out our sustainable development priorities, establishes goals and targets, and identifies actions to achieve them. The 2016–2019 FSDS—Canada's third—outlines what we will do to promote clean growth, ensure healthy ecosystems and build safe, secure and sustainable communities over the next three years.

In February 2016, we looked to you for input and advice on articulating a sustainable development vision for Canada, improving FSDS goals and targets, acknowledging the role of the 2030 Agenda and its global sustainable development goals (SDGs), and recognizing the contributions of our partners. In response, you contributed more than 540 comments and 900 social media posts, providing ideas, feedback and suggestions that have helped shape our strategy.

Drawing on this input, we will strive to realize a vision in which Canada is one of the greenest countries in the world and our quality of life continues to improve. Among other commitments, this will include responding to the priorities of Canadians and stakeholders by reducing greenhouse gas emissions from our own operations, reaffirming our commitment to apply strategic environmental assessment; and working actively with business to advance sustainable development.

Our work in 2016–2019 will centre on 13 aspirational, long-term goals that reflect the Canada we want and are a Canadian reflection of the global SDGs, with a focus on their environmental dimensions:



EFFECTIVE ACTION ON CLIMATE CHANGE

A low-carbon economy contributes to limiting global average temperature rise to well below two degrees Celsius and supports efforts to limit the increase to 1.5 degrees Celsius



LOW-CARBON GOVERNMENT

The Government of Canada leads by example by making its operations low-carbon



CLEAN GROWTH

A growing clean technology industry in Canada contributes to clean growth and the transition to a low-carbon economy



MODERN AND RESILIENT INFRASTRUCTURE

Modern, sustainable, and resilient infrastructure supports clean economic growth and social inclusion



CLEAN ENERGY

All Canadians have access to affordable, reliable and sustainable energy



HEALTHY COASTS AND OCEANS

Coasts and oceans support healthy, resilient and productive ecosystems



PRISTINE LAKES AND RIVERS

Clean and healthy lakes and rivers support economic prosperity and the well-being of Canadians



SUSTAINABLY MANAGED LANDS AND FORESTS

Lands and forests support biodiversity and provide a variety of ecosystem services for generations to come



HEALTHY WILDLIFE POPULATIONS

All species have healthy and viable populations



CLEAN DRINKING WATER

All Canadians have access to safe drinking water and, in particular, the significant challenges Indigenous communities face are addressed



SUSTAINABLE FOOD

Innovation and ingenuity contribute to a world-leading agricultural sector and food economy for the benefit of all Canadians



CONNECTING CANADIANS WITH NATURE

Canadians are informed about the value of nature, experiencing nature first hand, and actively engaged in its stewardship



SAFE AND HEALTHY COMMUNITIES

All Canadians live in clean, sustainable communities that contribute to their health and well-being

Medium-term targets and short-term milestones support each goal. Between the draft and final FSDS, we've revised our targets to make them more specific, measurable, achievable and time-bound, and to ensure that they align with our current policy and priorities.

Action plans describe what we will do to achieve our goals and targets. Over the next three years, our actions will include working with partners within Canada and internationally to advance shared priorities; providing Canadians with the information they need to embrace sustainable lifestyles and safeguard their health; conducting scientific research; and investing in technology and infrastructure.

Meanwhile, cross-cutting priorities such as ensuring robust and thorough environmental assessments, respecting the rights of Indigenous Peoples, and implementing strong environmental legislation will support progress in all areas of the FSDS.

We acknowledge that we cannot achieve sustainable development alone—partners such as provinces and territories, Indigenous Peoples, communities, businesses, scientists, and non-governmental organizations all play a role in helping us meet our objectives.

Finally, we need your help—you can make a difference in areas such as addressing climate change, protecting ecosystems and improving air quality. We hope you'll take action, and that you'll continue to provide input and ideas to help us further refine our sustainable development vision and long-term goals.



INTRODUCTION

The Federal Sustainable Development Strategy (FSDS) is our primary vehicle for sustainable development planning and reporting. It sets out our sustainable development priorities, establishes goals and targets, and identifies actions to achieve them.

The 2008 *Federal Sustainable Development Act* provides the legal framework for developing and implementing the FSDS. It requires the Minister of Environment and Climate Change to consult on and table a whole-of-government strategy every three years.

Under the Act, 26 departments and agencies are responsible for preparing their own sustainable development strategies that comply with and contribute to the FSDS. Fifteen additional organizations contribute to the FSDS voluntarily.

The 2016–2019 FSDS is the third whole-of-government strategy prepared under the Act. It outlines what we will do to promote clean growth, ensure healthy ecosystems and build safe, secure and sustainable communities over the next three years.



LISTENING TO CANADIANS

In February, 2016, we released the draft 2016–2019 FSDS for public review and comment. It marked the beginning of a new approach, clearly linking our sustainability priorities with the 2030 Agenda for Sustainable Development and its global sustainable development goals (SDGs). It provided the foundation for our sustainable development vision, proposed five new high-level goals, and set out new and revised targets.

In releasing the draft, we aimed to start a conversation with Canadians about sustainable development. Specifically, we asked for your views on:

- ♦ Articulating a sustainable development vision for Canada;
- ♦ Increasing transparency and accountability by improving our goals and targets;
- ♦ Acknowledging the role of the SDGs; and
- ♦ Recognizing the contributions of partners.

To enable as many people as possible to participate in the consultations, we provided a variety of ways to comment, including email; an interactive e-strategy; the online discussion space [Let's Talk Sustainability](#); stakeholder meetings and webinars; and social media.

Your response showed us that Canadians are passionate and knowledgeable about sustainable development. We received more than 540 written comments and 900 social media posts on the draft FSDS, providing insights, ideas and suggestions that have helped shape the final strategy.

We heard from a broad range of organizations and stakeholders, including provincial governments, Indigenous organizations, municipalities, non-governmental organizations, academics, think tanks, scientists, industry associations, companies and individuals.

We also heard from:

- ♦ The Commissioner of the Environment and Sustainable Development;
- ♦ The House of Commons Standing Committee on Environment and Sustainable Development;
- ♦ The Senate Standing Committee on Energy, the Environment and Natural Resources; and
- ♦ The Sustainable Development Advisory Council.

WHAT WE HEARD

What you liked

You recognized improvements in the draft 2016–2019 FSDS compared with past strategies, noting an expanded scope, improved targets, new goals highlighting economic and social issues, and an interactive e-strategy. You also appreciated the draft's emphasis on seeking public input.

What you wanted to see

You see sustainable development as incorporating social, economic and environmental dimensions, and wanted to see those aspects addressed in the FSDS in an integrated way. You also want a strategy that recognizes what partners are doing and inspires action across all sectors of Canadian society.

You strongly support the SDGs and want closer alignment between the FSDS and these global goals. You noted the potential of the FSDS to signal a commitment to the SDGs and to support SDG reporting.

You saw climate change as a key issue for the FSDS and supported ambitious action. In particular, you called for a plan to transition to a low-carbon economy, as well as a more ambitious target for reducing greenhouse gas (GHG) emissions from federal government operations. You contributed ideas for reducing GHG emissions, such as pricing carbon and using more renewable energy.

You also expressed a clear expectation for compelling, aspirational goals, measurable and time-bound targets, clear action plans, and more direct connections between FSDS goals, targets and indicators.

You supported a renewed emphasis on strategic environmental assessment—the environmental assessment of policy, plan and program proposals—as a way to ensure sustainability considerations are incorporated into social and economic policies.

You also wanted an FSDS that is clear and meaningful, and provided suggestions for improving it as a communications tool such as adding more visual appeal and creating an index.

What you thought was missing

Some of you wanted the FSDS to include more sector-specific information—for example, ongoing work in the aviation and aerospace sector; the potential of tourism to connect Canadians with nature; innovative practices in the agricultural sector; and the importance of green transportation.

Some of you felt the precautionary principle was missing from the FSDS, and encouraged us to apply it in species and ecosystem management.

You wanted to see more coverage of issues related to freshwater and oceans, such as ocean acidification and water security, and noted the importance of a “polluter pays” approach to marine pollution.

You saw sustainable lifestyles as an important issue and encouraged us to facilitate more sustainable practices by, for example, promoting recycling, providing tools to help individuals calculate their environmental footprint, and promoting urban agriculture in schools.

A number of you saw waste—particularly food waste and marine plastics—as a major gap in the FSDS. Some of you also suggested redefining waste as a resource that could help produce cost savings, boost innovation and create jobs.

In terms of how to achieve sustainable development goals, you questioned whether purely voluntary approaches were effective and proposed using financial incentives to drive change.

For a more detailed summary of what we heard, see our [*Synthesis Report: Public Consultations on the Draft FSDS 2016–2019*](#).

WHAT WE DID

We weren’t able to address every comment we received, and there is still room to improve—in particular, to ensure that all of our targets are specific, measurable, achievable, relevant and time-bound (SMART) and that we have the right indicators in place. And, while we’ve established baselines for many of our targets, for others we lack existing data but are committing to track our progress going forward.

Despite these ongoing challenges, we have made major changes to the FSDS to reflect your priorities, ideas and concerns. The following are some of the steps we took.

Demonstrated our commitment to the SDGs and the priorities of Canadians

Between the draft and final 2016–2019 FSDS, we replaced our five-goal framework with 13 aspirational goals that reflect the global SDGs (with a focus on their environmental dimensions) and respond to feedback from Canadians and stakeholders.

In improving our goals, we filled gaps that Canadians saw in the draft strategy. For example, for the first time, we’ve included a goal on sustainable food, including targets and actions to ensure our food systems support clean water, clean soil and biodiversity, and to improve access to nutritious food.

TALKING WITH THE SUSTAINABLE DEVELOPMENT ADVISORY COUNCIL

The Sustainable Development Advisory Council was a key part of public consultations on the draft 2016–2019 FSDS. The council’s role includes advising the Minister of Environment and Climate Change on draft federal sustainable development strategies, and its members represent each province and territory as well as Indigenous Peoples, environmental non-governmental organizations, business and labour.

In written submissions and in meetings, council members noted that the draft 2016–2019 FSDS provided improvements over past strategies—for example, in clarity and accessibility. Their suggestions for further improvement included addressing economic, social and environmental issues, improving goals and targets, and setting more ambitious targets for clean water in First Nation communities. Council members stressed the need for integration and urged us to take a whole-of-government approach to sustainable development. They also called for better indicators and a dashboard approach to progress reporting.

Issues of concern to council members included, among others, supporting Canada’s agricultural producers in their stewardship of the land, prioritizing skills development and apprenticeship programs to support the transition to a low-carbon economy, investing in green infrastructure and low-carbon procurement, and empowering Canadians to take action and adopt sustainable lifestyles.

The council highlighted the role of Indigenous Peoples in the FSDS and encouraged enhanced nation-to-nation collaboration and greater integration of Indigenous Traditional Knowledge, with Indigenous Peoples as way-finders. They discussed the unique challenges facing Indigenous communities, such as clean energy, food sovereignty, energy-efficient housing and resilience to climate change.

Members saw the FSDS as having the potential to recognize regional differences while helping to unify Canada. Finally, they emphasized the importance of developing a long-term vision, engaging youth, and continuing the dialogue on sustainable development in Canada.

RESPONDING TO RECOMMENDATIONS FROM THE HOUSE OF COMMONS STANDING COMMITTEE ON ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

In the context of public consultations on the draft 2016–2019 FSDS, the House of Commons Standing Committee on Environment and Sustainable Development conducted a review of the Federal Sustainable Development Act, the legislation that requires us to develop and implement the FSDS.

On June 17, 2016, the committee tabled their report, [Federal Sustainability For Future Generations – A Report Following an Assessment of the Federal Sustainable Development Act](#). The report highlights ways in which changes to the Act—as well as other steps—could facilitate more effective sustainable development strategies. It makes 13 recommendations, including:

- Broadening the Act's purpose to require an FSDS that leads Canada on a path towards sustainable development and contributes to the global SDGs, and to clarify that sustainable development encompasses and requires thorough consideration of economic, social and environmental factors;
- Taking action to ensure a whole-of-government approach to federal sustainable development;
- Incorporating a list of sustainable development principles into the Act;
- Setting out specific federal sustainable development goals in the Act that take our international commitments into account; and
- Ensuring that the FSDS includes short-, medium- and long-term targets that are SMART.

The committee's report was instrumental in guiding the development of the final 2016–2019 FSDS, and the strategy reflects the committee's recommendations through, for example:

- New goals that reflect our commitment to the SDGs;
- Short-, medium- and long-term elements in each area covered by the FSDS;
- Stronger targets and indicators; and
- A clearer commitment to key sustainable development principles.

We've made progress, but we agree that further change is needed. We will continue to take the committee's recommendations into account as we implement and report on the 2016–2019 FSDS, and as we look ahead to future strategies and explore legislative amendments.

Improved our targets and indicators

We reviewed and revised our targets to better align them with the SMART criteria. We also updated some of our targets to reflect current priorities and increase their level of ambition—for example, we replaced our draft target related to on-reserve First Nation drinking water and wastewater systems with a commitment to address long-term drinking water advisories in First Nation communities, and set a more ambitious target to reduce GHG emissions from our own operations. Finally, we established short-term milestones for each goal to help us stay on track.

We also added new indicators—or strengthened our existing ones—to help us measure our progress on climate action, clean growth, clean energy, coasts and oceans, lands and forests, lakes and rivers, and clean drinking water.

Clarified our action plans

We revised our action plans to ensure they clearly explain how we will work toward our goals and targets over the next three years. The final strategy presents high-level action plans that outline our approach to achieving each FSDS goal. Sustainable development strategies prepared by individual departments and agencies will complement the FSDS by providing more detailed action plans.

Acknowledged the contributions of our partners and Canadians

We know that our partners make sustainable development progress possible. To acknowledge their essential roles, we added new sections on what our partners are doing to achieve each FSDS goal. We also added steps that individual Canadians can take to make a difference.

Enhanced clarity and readability

We made the FSDS clearer and easier to read, including by defining key terms; better structuring our content so it's easier for readers to find the information they need; and enhancing our interactive e-strategy.

CONTINUING THE CONVERSATION

While the 2016–2019 FSDS is now in place, there is still more to be done. Our new “evergreen” approach to the strategy means that your help will continue to be essential.

We invite you to continue to provide comments as we implement the 2016–2019 FSDS. We also hope you'll join in the discussion at [Let's Talk Sustainability](#) to share your ideas and let us know what you're doing to protect the environment and contribute to sustainable development.

We're confident that your insight and expertise will help us reach our targets and further refine our sustainable development vision and aspirational goals.

CANADA IN THE WORLD

Globally, 2015 was a watershed year for sustainable development and has set the stage for further progress in years to come.

In September, United Nations (UN) member states adopted the 2030 Agenda for Sustainable Development, including 17 SDGs (see Figure 1) and 169 targets. They are the result of an extensive consultation process involving millions of people around the world.

The 2030 Agenda provides the global framework for sustainable development for the next decade and a half, integrating social, economic and environmental dimensions of sustainable development as well as peace, governance and justice elements.

Less than three months later, parties to the UN Framework Convention on Climate Change adopted the [historic Paris Agreement](#), signalling a renewed global commitment to address climate change.

Sustainable development progress has continued in 2016. In May, representatives of more than 170 countries—including Canada—came together for the second meeting of the UN Environment Assembly, the world's highest-level decision-making body on the environment.

As the world moves forward on sustainable development, we want to ensure that Canada plays a leading role. In implementing the 2016–2019 FSDS, we will take action that supports our international commitments and addresses issues important to Canadians.

OUR STRATEGY SETS OUT OUR SUSTAINABLE DEVELOPMENT GOALS

We are committed to supporting the implementation of the 2030 Agenda for Sustainable Development, both

domestically and internationally. The universal nature of the 2030 Agenda recognizes that all countries are in a state of development and that governments alone will not achieve the SDGs.

Fully implementing the SDGs in Canada will require action across government, by our partners, and by Canadians. We will continue to work in partnership with all levels of government, nation-to-nation, with civil society and with the private sector to contribute to eradicating poverty, protecting our planet, promoting peace, equality, justice and prosperity, and ensuring no one is left behind.

This is a long-term process; however, the 2016–2019 FSDS forms the foundation of our response to global efforts to implement the SDGs.

The 13 aspirational goals laid out in this strategy are a Canadian reflection of the SDGs, acknowledging our unique responsibilities—the need to conserve our vast land area, oceans and coastline for future generations, develop our natural resources sustainably, and protect vulnerable northern regions from climate change impacts. Our targets, milestones and action plans show how we will implement environmental dimensions of the SDGs over the next three years.

Countries and organizations around the world continue to develop plans to implement the 2030 Agenda. For example, UN member states are working to develop a follow-up and review process, including indicators to measure the SDGs and targets.

Canada continues to participate in the Inter-Agency Expert Group on SDG indicators that is making an important contribution to developing technically sound, evidence-based indicators to effectively measure contributions to the SDGs.



Figure 1 – The global sustainable development goals of the 2030 Agenda

OTHER INTERNATIONAL AGREEMENTS THAT GUIDE OUR ACTIONS

The UN Declaration on the Rights of Indigenous Peoples

In May 2016, we announced our full and unqualified support for the UN Declaration on the Rights of Indigenous Peoples. First adopted by the UN General Assembly in 2007, the declaration describes both individual and collective rights of Indigenous Peoples around the world; offers guidance on cooperative relationships with Indigenous Peoples to states and international organizations; and addresses the rights of Indigenous Peoples on issues such as culture, identity, religion, language, health, education and community.

A range of actions that contribute to the 2016–2019 FSDS also support the declaration—for example, working with Indigenous Peoples to conserve species and ecosystems; taking action to protect the environment from degradation and pollution; improving access to nutritious food; and addressing the challenges Indigenous communities face in accessing safe drinking water.

The Paris Agreement

The world reached a historic milestone with the adoption of the Paris Agreement in December 2015. Parties to the agreement will establish national GHG emissions reduction targets, update them every five years, and take action to achieve them. They will also strengthen climate change adaptation, provide support to developing countries, and regularly assess and report on progress.

The FSDS includes the goal of transitioning to a low-carbon economy to contribute to limiting the global average temperature rise to well below two degrees Celsius and support efforts to limit the increase to 1.5 degrees Celsius. Actions that support our commitments under the Paris Agreement include:

- Working with partners to develop a pan-Canadian framework on clean growth and climate change, put a price on carbon, and reduce emissions;
- Providing climate finance to support action in developing countries; and
- Helping economic sectors, regions, communities, and Canadians become more resilient to climate change impacts—for example, by integrating climate resilience into building design guides and codes and by supporting adaptation in Canada's North, where temperatures are rising fastest.

The UN Convention on Biological Diversity

The objectives of the UN Convention on Biological Diversity include the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits from the use of genetic resources.

In 2010, Canada and other parties to the convention adopted the 2011–2020 Strategic Plan for Biodiversity which includes 20 global biodiversity targets, known as the Aichi Targets. Subsequently, in February 2015, Canada adopted the 2020 Biodiversity Goals and Targets for Canada, national objectives that will help guide collective action on biodiversity conservation in Canada and support progress toward Canada's commitments under the convention. They were developed collaboratively by the federal, provincial and territorial governments, with input from Indigenous organizations and stakeholders.

A number of Canada's 2020 biodiversity goals and targets appear in the FSDS as targets or actions. FSDS targets that support these national objectives include those related to coasts and oceans, sustainable food, lands and forests, biodiversity, and connecting Canadians with nature.

Implementing the 2020 biodiversity goals and targets will rely on meaningful, full and effective participation of Indigenous Peoples. In this respect, Indigenous Traditional Knowledge and customary use of biological resources are relevant for implementing all of these goals and targets, including related FSDS targets (Biodivcanada.ca, 2015).

For details on how FSDS goals support international action, see Annex 3.

To learn more about international agreements and commitments related to environmental sustainability, see the [Compendium of Canada's Engagement in International Environmental Agreements](#).

A SUSTAINABLE DEVELOPMENT VISION FOR CANADA

WHAT IS SUSTAINABLE DEVELOPMENT?

Sustainable development is complex, and there are many definitions. The *Federal Sustainable Development Act* defines it as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

But what does that mean to us? Conserving our environment for future generations is an essential part of it, but sustainable development goes beyond that.

To us, sustainable development means achieving low-carbon, environmentally responsible economic growth, maintaining and restoring our ecosystems, and ensuring Canadians can flourish in clean and healthy environments.

OUR VISION

Canada is one of the greenest countries in the world and our quality of life continues to improve.

OUR PRINCIPLES

The FSDS shows our commitment to key sustainable development principles.

The **precautionary principle**—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—is integral to sustainable development and the FSDS. Our commitment to preventing environmental degradation is reflected throughout the FSDS—for example, in goals and targets related to climate action, wildlife, lands and forests, and coasts and oceans.

The FSDS also reflects the **principle that sustainable development is based on an ecologically efficient use of natural, social and economic resources**. Targets across the FSDS—for example, on clean growth, modern and resilient infrastructure, and building safe and healthy communities—reflect a commitment to advance economic and social objectives without harming the environment.

Transparency and accountability are at the core of the FSDS. By bringing federal environmental sustainability priorities, goals, targets and actions in one place, and through the requirement for regular reporting, the FSDS helps ensure that parliamentarians and Canadians can track what we are doing and what results are being achieved.

The FSDS relies on **public participation**. Every three years, through public consultations on the draft strategy, we look to Canadians to help shape our sustainable development agenda. We are also committed to continuing to engage Canadians as we implement the FSDS.

The FSDS reflects our commitment to **reconciliation** between Indigenous Peoples and the Crown. Throughout the FSDS, we acknowledge the vital contributions that Indigenous Peoples, governments and organizations make to sustainable development. We are also committed to consulting and engaging with Indigenous Peoples in the development of each new FSDS.

The **“polluter pays” principle** means ensuring those who cause environmental damage are held accountable for their actions. This principle is reflected in Canadian environmental legislation as well as in the FSDS—for example, our approach to protecting coasts and oceans includes holding industry accountable for any spill to the marine environment.

Integration means making decisions and developing policies that take into account environmental, economic and social factors. The FSDS supports integration by highlighting economic and social dimensions of environmental sustainability priorities, and through the requirement that departments and agencies consider the potential effects of proposed policies, plans and programs on FSDS goals and targets in their strategic environmental assessments.

Upholding **intergenerational equity** means taking action in the present to ensure our environment and natural resources support the needs of future generations. This concept is fundamental to sustainable development and to the FSDS. For example, the FSDS reflects our commitment to conserve lands, waters and wildlife for future generations and to address problems we face today—such as climate change—that threaten their well-being.

OUR GOALS

Thirteen aspirational goals support our sustainable development vision and reflect the Canada we want:



EFFECTIVE ACTION ON CLIMATE CHANGE

A low-carbon economy contributes to limiting global average temperature rise to well below two degrees Celsius and supports efforts to limit the increase to 1.5 degrees Celsius



LOW-CARBON GOVERNMENT

The Government of Canada leads by example by making its operations low-carbon



CLEAN GROWTH

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MODERN AND RESILIENT INFRASTRUCTURE

Modern, sustainable, and resilient infrastructure supports clean economic growth and social inclusion



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All Canadians have access to affordable, reliable and sustainable energy



HEALTHY COASTS AND OCEANS

Coasts and oceans support healthy, resilient and productive ecosystems



PRISTINE LAKES AND RIVERS

Clean and healthy lakes and rivers support economic prosperity and the well-being of Canadians



SUSTAINABLY MANAGED LANDS AND FORESTS

Lands and forests support biodiversity and provide a variety of ecosystem services for generations to come



HEALTHY WILDLIFE POPULATIONS

All species have healthy and viable populations



CLEAN DRINKING WATER

All Canadians have access to safe drinking water and, in particular, the significant challenges Indigenous communities face are addressed



SUSTAINABLE FOOD

Innovation and ingenuity contribute to a world-leading agricultural sector and food economy for the benefit of all Canadians



CONNECTING CANADIANS WITH NATURE

Canadians are informed about the value of nature, experiencing nature first hand, and actively engaged in its stewardship



SAFE AND HEALTHY COMMUNITIES

All Canadians live in clean, sustainable communities that contribute to their health and well-being



REALIZING OUR VISION

It's not enough to decide where we want to go—we need to take action to get there. That includes becoming a leader on the international stage. Studies provide an idea of how we compare with other countries on sustainable development.

- ♦ The 2016 [Yale Environmental Performance Index](#) showed that while Canada ranks 25th out of 180 countries, our ranking has improved from report to report;
- ♦ The [2016 SDG Index and Dashboards—Global Report](#) found that Canada ranked 11th among OECD countries in terms of implementing the SDGs; and
- ♦ The [Conference Board of Canada – How Canada Performs](#) gave Canada a C and ranked it 9th among international peers.

These studies demonstrate where Canada is doing well—for example, 80 percent of our electricity production is from low-emissions sources. They also show where we need to improve, such as on GHG emissions and energy intensity.

The 2016–2019 FSDS includes measures to shift to a low-carbon economy and invest in clean technologies. These actions will help set us on a path to realize our vision.

AN EVERGREEN STRATEGY

For the first time, with the 2016–2019 FSDS we're committing to making our strategy "evergreen". Our interactive e-strategy will enable us to update the strategy on an ongoing basis to incorporate new commitments, decisions and actions. Through the e-strategy, we will also provide periodic updates on progress toward our milestones, targets and goals.

Updates to the strategy will be informed by our ongoing conversation with our partners and Canadians. We will also update the strategy to reflect the outcomes of key policy processes, such as work with provinces, territories and Indigenous Peoples to develop a pan-Canadian framework on clean growth and climate change.

DOING OUR PART

We know that we need to do our part and contribute to economy-wide efforts to reduce GHG emissions. Over the next three years, we'll work toward a new, more ambitious target of reducing GHG emissions from federal buildings and fleets by 40% below 2005 levels by 2030.

We will take action to ensure new buildings and renovations achieve a high level of environmental performance, retrofit workplaces and promote innovative practices.

REAFFIRMING OUR COMMITMENT TO STRATEGIC ENVIRONMENTAL ASSESSMENT

Strategic environmental assessment helps us take environmental impacts into account when developing policy and making decisions.

Under the [Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals](#), federal departments and agencies are expected to conduct a strategic environmental assessment for proposed policies, plans and programs going to a minister or Cabinet for approval, where implementation could result in important environmental effects.

With the 2016–2019 FSDS, we are reaffirming our commitment to applying strategic environmental assessment. For example, we are improving the guidance available to departments and we have improved the due diligence requirements to ensure that Cabinet Directive is being applied to Cabinet decision-making documents.

Our renewed commitment to strategic environmental assessment supports our promise to Canadians to make decisions based on evidence and to set a higher bar for openness and transparency in government.

REDUCING THE ENVIRONMENTAL FOOTPRINT OF CANADA'S MISSIONS ABROAD

Through Global Affairs Canada's Sustainable Buildings Program, we are reducing the environmental impact of our missions abroad. For example, at the High Commission of Canada in New Delhi, we've implemented a photovoltaic system to provide 45,000 kilowatt-hours per year of clean energy. At the Embassy of Canada in Berlin, Global Affairs Canada has piloted new Canadian technology to capture sunlight and direct it into a multipurpose gathering space. This project was recognized by a Real Property Institute of Canada award.

WORKING WITH BUSINESS FOR SUSTAINABLE DEVELOPMENT

Across the Canadian economy, companies are developing new technologies and processes to reduce their environmental footprint, as well as setting and reporting on environmental and sustainable development commitments.

Investors contribute by taking environmental, social and governance factors into account in investment decisions and by engaging with companies to encourage sustainable practices, while industry associations are driving change and coordinating sustainable development action among their member companies.

Over the next three years, we will engage the business community as we continue to develop our response to the global SDGs. We will also explore new ways to promote corporate social and environmental responsibility, accountability and transparency, including in supply chains.

We have taken early action in making Canada a part in the Carbon Pricing Leadership Coalition. Canadian business leaders understand the opportunities associated with the shift toward cleaner, more sustainable growth. The following Canadian companies have become private sector partners of the coalition:

Air Canada	Resolute Forest Products Inc.
Barrick Gold Corporation	Royal Bank of Canada
BMO Financial Group	Scotiabank
Canadian Tire Corporation	Shell Canada Limited
Carbon Engineering Ltd.	Suncor Energy
Catalyst Paper Corporation	Teck Resources Limited
Cement Association of Canada	TELUS
Cenovus Energy Inc.	The Co-operators Group Limited
Desjardins Group	The Toronto Dominion Bank Group
Enbridge Inc.	TransCanada Corporation
IKEA Canada	Unilever Canada Inc.
Loblaw Companies Limited	

REVIEWING ENVIRONMENTAL AND REGULATORY PROCESSES

Conducting robust and thorough environmental assessments, respecting the rights of Indigenous Peoples, and implementing strong environmental legislation will support progress in all areas of the FSIDS.

To advance these priorities, we launched [a review of environmental and regulatory processes](#) on June 20, 2016. Areas of focus for the review include:

- Rebuilding trust in environmental assessment processes;
- Modernizing the National Energy Board; and
- Restoring lost protections and introducing modern safeguards to the *Fisheries Act* and the *Navigation Protection Act*.

In carrying out the review, we are working directly with Indigenous Peoples to ensure their concerns are heard and taken into account. We are also seeking input from provinces and territories, members of the public, and stakeholders such as industry and environmental groups.

Outcomes of the review are expected to include:

- New, fair environmental assessment processes that are robust, incorporate scientific evidence, protect our environment, respect the rights of Indigenous Peoples, and support economic growth;
- An National Energy Board whose composition reflects regional views and that has sufficient expertise in such fields as environmental science, community development, and Indigenous Traditional Knowledge; and
- Changes to legislation, as appropriate.



WORKING WITH PARTNERS

We know that we can't achieve sustainable development alone. Our partners—including provincial and territorial governments, Indigenous Peoples, municipalities, businesses, the scientific community, non-governmental organizations and individual Canadians—all make important contributions.

Provinces and territories share responsibility for the environment with us. Their many contributions include working with us to develop the pan-Canadian climate change framework and implementing their own climate policies; regulating natural resource sectors; supporting clean technology; protecting and restoring important aquatic ecosystems; and taking action to monitor and improve air quality.

We are committed to a nation-to-nation relationship with Indigenous Peoples and listening to Indigenous voices. Given Indigenous Peoples' unique understanding of and connection to Canada's lands and waters, their involvement in environmental policy development and decision-making is essential.

Indigenous Peoples are valued partners in areas such as helping species at risk recover and managing national parks and protected areas. They contribute Indigenous Traditional Knowledge that supports decision-making in areas such as biodiversity conservation and the sustainable use of biological resources. Indigenous governments are also taking action to manage natural resources and protect the environment on their lands, including by establishing environmental protection legislation.

Canadian municipalities and communities have a significant impact on Canada's sustainability—for example, they make decisions related to public transit, waste management, infrastructure and buildings that affect GHG emissions, air quality, water quality and more. Their decisions also influence Canadians' quality of life. Among other contributions to the FSDS, municipalities will be essential partners in implementing our commitment to increase infrastructure investment.

ADVANCING A SHARED ARCTIC LEADERSHIP MODEL

As we plan for the future of the Arctic region, it is important to ensure its many interests and uses are considered. In August, 2016, the Minister of Indigenous and Northern Affairs announced the appointment of Mary Simon as the Minister's Special Representative responsible for leading engagement and providing advice on the development of a new Shared Arctic Leadership Model. She is seeking input from a range of stakeholders on six key themes, including a sustainable development vision for the Arctic and new Arctic conservation goals.

The business community, including companies, investors and industry associations, plays a key role—for example, by developing clean technologies that contribute to a low-carbon economy. However, the role of business goes far beyond the clean technology sector. From natural resources to service industries, and from co-operatives to social enterprises, businesses are adopting sustainable practices and working to reduce their environmental footprint.

Science and data underpin our sustainable development agenda, from climate change policy to water stewardship to biodiversity protection. Canada's scientific community generates knowledge that supports progress in these and other areas. Canadian scientists also contribute to international initiatives—for example, to the preparation of assessment reports of the Intergovernmental Panel on Climate Change.

Finally, non-governmental organizations contribute by advocating for sustainable development, carrying out public education and outreach, and taking action on the ground to protect the environment. For example, they support habitat conservation on private lands, participate in multi-stakeholder invasive species councils, and engage Canadians in citizen science initiatives.

TAKE ACTION!

Individual Canadians are engaged and informed, and are making a difference. Canadians contribute in areas across the FSDS, including addressing climate change, improving air quality, protecting water, and conserving species and habitats.

Some of the many steps that Canadians can take to live more sustainably include increasing the energy efficiency of their homes and choosing energy-efficient appliances, using low-emission modes of transportation, reducing food waste, composting and recycling, getting out in nature and getting involved in conservation.

We also hope you'll continue to be actively involved and contribute your ideas and perspectives as we implement the 2016–2019 FSDS.

OUR COMMITMENTS AND PLANS

Vision

Canada is one of the greenest countries in the world and our quality of life continues to improve.

Goals

The 2016–2019 FSDS is organized around 13 aspirational goals that are a Canadian reflection of the SDGs, acknowledging our unique responsibilities and circumstances:

- Effective action on climate change
- Low-carbon government
- Clean growth
- Modern and resilient infrastructure
- Clean energy
- Healthy coasts and oceans
- Pristine lakes and rivers
- Sustainably managed lands and forests
- Healthy wildlife populations
- Clean drinking water
- Sustainable food
- Connecting Canadians with nature
- Safe and healthy communities

Targets and milestones

One or more medium-term targets contribute to each goal. To the extent possible, medium-term targets are specific, measurable, achievable, time-bound and relevant.

Short-term milestones complement FSDS targets. They represent interim steps that will help ensure we stay on track to achieve our longer-term objectives.

Action plans

Action plans set out what we will do to achieve our targets. They include priority measures, as well as other actions that support the targets.

Canada's starting point

What our indicators currently show, and how we will measure our progress going forward.

Canada In the world

How our goals, targets and actions support the SDGs and contribute to other international agreements and initiatives.

Connections with other FSDS areas

How each FSDS goal supports the achievement of others.

Partners

Actions others are taking that support our goals and targets.

Take action!

Steps that Canadians can take to help achieve our goals and targets.

Table 1 – FSDS goals, targets, responsible ministers and key departments

GOAL TITLES	TARGET TITLES	RESPONSIBLE MINISTERS
Effective action on climate change	Canada's GHG emissions	Minister of Environment and Climate Change, supported by a whole-of-government approach to implementation
Low-carbon government	GHG emissions reduction from federal buildings and fleets	All ministers
Clean growth	Investment in clean energy research, development and demonstration	Minister of Innovation, Science and Economic Development; Minister of Natural Resources
Modern and resilient infrastructure	Investment in green infrastructure	Minister of Infrastructure and Communities
Clean energy	Clean power generation	Minister of Natural Resources
	Contribution to clean power generation in North America	Minister of Natural Resources
	Share of renewable energy in Canada's total electricity supply	Minister of Natural Resources
Healthy coasts and oceans	Marine conservation	Minister of Fisheries, Oceans and the Canadian Coast Guard
	Sustainable fisheries	Minister of Fisheries, Oceans and the Canadian Coast Guard
Pristine lakes and rivers	Nutrient pollution to lakes and rivers	Minister of Environment and Climate Change
	Lake and river ecosystems	Minister of Environment and Climate Change



GOAL TITLES	TARGET TITLES	RESPONSIBLE MINISTERS
Sustainably managed lands and forests	Terrestrial ecosystem conservation	Minister of Environment and Climate Change
	Health of national parks	Minister of Environment and Climate Change
	Sustainable forests	Minister of Natural Resources
Healthy wildlife populations	Species at risk	Minister of Environment and Climate Change
	Migratory birds	Minister of Environment and Climate Change
Clean drinking water	Long-term drinking water advisories	Minister of Indigenous and Northern Affairs
Sustainable food	Safe and accessible food supply	Minister of Health
	Sustainable agriculture	Minister of Agriculture and Agri-Food
	Sustainable aquaculture	Minister of Fisheries, Oceans and the Canadian Coast Guard
Connecting Canadians with nature	Participation in biodiversity conservation activities	Minister of Environment and Climate Change
	Support for protection and presentation of Parks Canada places	Minister of Environment and Climate Change
	Visits to national wildlife areas	Minister of Environment and Climate Change
Safe and healthy communities	Air quality	Minister of Environment and Climate Change
	Chemicals Management Plan	Minister of Environment and Climate Change; Minister of Health





EFFECTIVE ACTION ON CLIMATE CHANGE



LONG-TERM GOAL

A low-carbon economy contributes to limiting global average temperature rise to well below two degrees Celsius and supports efforts to limit the increase to 1.5 degrees Celsius

WHY IS THIS ISSUE IMPORTANT?

Climate change is a critical global problem that could affect future generations' ability to meet their basic needs. Its effects are already being felt across Canada—for example, rising sea levels that threaten coastal communities, more frequent and severe wildfires and pest outbreaks, and extreme weather events such as storms and heat waves.

Indigenous communities face disproportionate impacts, as reductions in sea ice, snow cover and glaciers have disrupted travel routes and reduced the quality of country foods in the North.

Effective action on climate change means transitioning to a low-carbon economy—reducing our GHG emissions while increasing our prosperity.

Adaptation is also key in addressing climate change, and is about making smart, informed, forward-looking decisions. Effective adaptation measures can save lives, minimize damages, and lower costs over the long term for individuals, businesses, organizations, and governments.

MEDIUM-TERM TARGET

By 2030, reduce Canada's total GHG emissions by 30%, relative to 2005 emission levels

SHORT-TERM MILESTONES

- ♦ By the end of Fall 2016, First Ministers are expected to agree on Canada's approach to climate change via a pan-Canadian framework on clean growth and climate change, which will put Canada on the path to meeting its 2030 target and taking action on adaptation and clean technology
- ♦ Ratify the Paris Agreement by the end of 2016
- ♦ Along with the US and Mexico, Canada has committed to develop a mid-century, long-term low-greenhouse gas emissions development strategy by the end of 2016

RESPONSIBLE MINISTER/KEY DEPARTMENTS AND AGENCIES

Minister of Environment and Climate Change, supported by a whole-of-government approach to implementation/ Agriculture and Agri-Food Canada; Department of Finance Canada; Environment and Climate Change Canada; Fisheries and Oceans Canada; Global Affairs Canada; Health Canada; Indigenous and Northern Affairs Canada; Innovation, Science and Economic Development Canada; Natural Resources Canada; Public Health Agency of Canada; Standards Council of Canada; Transport Canada

CANADA'S STARTING POINT

- ♦ To measure Canada's contribution to **limiting global temperature rise**, we track our national GHG emission level. In 2014, Canada's GHG emission level was 732 megatonnes carbon dioxide equivalent, or 5% below 2005 levels. However, emissions are currently increasing, and without additional action Canada's emission level is projected to be 815 megatonnes carbon dioxide equivalent in 2030, or more than 55% above our target.
- ♦ To monitor the **transition to a low-carbon economy**, we track our GHG intensity, or emissions of carbon dioxide equivalent per billion dollars GDP. In 2014, Canada's GHG intensity was 0.42 megatonnes of carbon dioxide equivalent per \$billion GDP, or 31.5% lower than 1990 (0.62 megatonnes).

OUR ACTION PLAN

Key priorities

Building on the Vancouver Declaration on Clean Growth and Climate Change issued by Canada's First Ministers in March 2016, we are working with provincial and territorial governments and Indigenous Peoples to develop a pan-Canadian framework on clean growth and climate change. By the fall of 2016, we will have in place a framework that provides a pathway towards our 2030 target to reduce GHG emissions by 30% from 2005 levels. By the end of the year we will also develop a long-term low-emissions development strategy that presents a pathway to a low-carbon future.

Reducing emissions as part of the pan-Canadian framework will require taking action to:

- Advance the use of carbon pricing to provide a market signal that encourages lower-emitting behaviours, products and technologies, and at the same time acknowledges provincial leadership and the need for flexibility;
- Help Canadians shift to cleaner fuel sources;
- Increase Canada's low or zero-emissions electricity supply;
- Increase vehicle efficiency and move towards lower-emitting modes of transportation;
- Accelerate the adoption of transformative technologies and energy efficiency;
- Make our buildings and equipment more efficient;
- Enhance sinks and address emissions from forests, agriculture and waste;
- Lead by example through green and innovative government operations.

The pan-Canadian framework will also advance strategies to address adaptation and resilience as well as clean technology, innovation and jobs. It will also implement an ongoing process for engagement and partnerships with Indigenous Peoples, including on clean energy.

Canada played an active and constructive role in the international negotiations that led to the adoption of the Paris Agreement—a new and effective global climate change agreement. On April 22, 2016, Canada signed the Paris Agreement and is taking action to ratify it by the end of the year. Moving forward, we will push for global action to implement the Paris Agreement while seeking out opportunities to address climate change bilaterally or multilaterally. Work in this regard has already started, beginning with our North American partners.

In February 2016, Canada, the US and Mexico signed the trilateral Memorandum of Understanding Concerning Climate Change and Energy Collaboration, establishing the foundations of continental energy collaboration. Building on this success, in June 2016 the three countries announced the North American Climate, Clean Energy and Environment Partnership, committing to work together to develop a competitive, low-carbon and sustainable North American economy and society. This will include:

- Achieving 50% clean power generation in North America;
- Phasing out inefficient fossil fuel subsidies that encourage wasteful consumption;
- Aligning fuel efficiency and GHG emission standards for vehicles; and
- Reducing emissions of potent short-lived climate pollutants such as methane and hydrofluorocarbons (HFCs).

Fulfilling our commitments under Mission Innovation will also contribute to reducing Canada's GHG emissions. Mission Innovation is a global partnership aimed at doubling government investment in clean energy innovation over five years, while encouraging private sector leadership in clean energy.

We have also committed to contribute an historic \$2.65 billion over the next five years to help developing countries tackle climate change.

To support our commitments to work with partners and reduce GHG emissions, Budget 2016 provided:

- \$2 billion over two years to establish a Low Carbon Economy Fund to support provincial and territorial actions that will significantly reduce GHG emissions;
- \$75 million in new funding for local governments to address climate change; and
- \$109.1 million over five years to advance domestic climate change objectives through science, data reporting, policy and regulations.

Finally, because further climate change is inevitable, we're taking action to help other governments and communities become more resilient to its impacts. For example, Budget 2016 provided:

- \$129.5 million over five years to build the science base to inform decision-making, protect the health and well-being of Canadians, build resilience in the North and Indigenous communities, and enhancing competitiveness in key economic sectors; and
- \$40 million over five years, as part of our 10-year infrastructure plan, to integrate climate resilience into building design guides and codes.

We will also help build capacity to respond to extreme heat by supporting implementation of heat alert and response systems.

PARTNERS TAKING ACTION - THE CO-OPERATORS

The Co-operators has set a long-term goal of being net carbon zero by 2020, and a target to reduce net carbon emissions by 75% below the 2010 base year by 2018. In 2015, its net carbon emissions were 55% below its 2010 emission levels due to:

- Internal reductions realized through energy efficiency building retrofits, space consolidation initiatives, a smaller and more efficient fleet, and reductions in vehicle business travel;
- Changes to provincial electricity emissions factors—for instance, the positive impact associated with the phasing out of coal in Ontario; and
- The purchase of renewable energy certificates from Bullfrog Power for select corporate offices.

CONTRIBUTING ACTIONS

Actions already planned and underway will support the implementation of the pan-Canadian framework. To accelerate the transition to a low-carbon economy and make communities resilient, we will:

Use regulations to limit GHG emissions

Develop and implement regulations to limit GHG emissions—for example:

- ♦ Develop regulations to reduce methane emissions from the oil and gas sector by 40–45% below 2012 levels by 2025 in partnership with the US and Mexico (intention to publish an initial phase of proposed regulations by early 2017); and
- ♦ Regulate HFCs under the Montreal Protocol.

Once regulations are in place, promote compliance and carry out enforcement activities, including in the electricity, energy efficiency, transportation and shipping sectors.

Work with partners on climate change

Collaborate with Canadians, other levels of government, and stakeholders—for example:

- ♦ Work with Canadians and northern stakeholders through the Northern Adaptation Strategy;
- ♦ Work with Canadians, provinces and territories, Indigenous Peoples, and municipalities to develop local and regional plans and continue to develop the Adaptation Platform; and
- ♦ Work with other levels of government and other partners to address the threats of invasive alien species under changing climatic conditions.

Conduct climate policy research and analysis

Conduct policy research and analysis to inform strategies to address climate change in different sectors, including agriculture, energy and health.

Take a leading role in international agreements and initiatives on climate change

Ensure Canada plays a leading role in international efforts to address climate change through free trade agreements, interactions with key partner countries including the US, Mexico, China and the European Union, by implementing multilateral environmental agreements, and by participating in international fora such as the United Nations.

This includes negotiations on GHG emissions in the maritime and aviation sectors and implementing Canada's climate finance pledge.

Provide in-kind support and funding for climate resilience

Provide funding for First Nations and Inuit communities to develop:

- ♦ Climate change adaptation strategies;
- ♦ Action plans for community-based climate change adaptation research and assessment projects; and
- ♦ Regional health adaptation plans.

Support adaptation projects in various sectors to improve training, build capacity, support evaluation, and promote information sharing, with a focus on northern transportation infrastructure.

Develop a solid base of scientific research and analysis on climate change

Conduct scientific research, modelling and analysis to build knowledge of climate change and its impacts—now and in the future, and across different geographic areas—including enhanced monitoring of the health impacts of climate change.

Track Canada's GHG emissions, collect GHG emissions data, provide information to support policy development (including regulations) in economic sectors, and provide information to help Canadians make climate-related decisions and prepare for future climate impacts.

Support voluntary action to reduce GHG emissions and adapt to climate change

Support businesses and Canadians in taking action to reduce GHG emissions. This work includes:

- ♦ Energy efficiency programs and information;
- ♦ Promoting sustainable consumption and production and the use of lower-carbon-footprint materials in construction;
- ♦ Plans to address GHG emissions from the rail sector; and
- ♦ Developing standards to support resilience, with a focus on infrastructure.

CONNECTIONS WITH OTHER FSDS AREAS

Climate change affects our ecosystems, our livelihoods, our safety and security, and our health. Taking action on climate change supports many other FSDS targets—for example:

- ♦ [Building a cleaner energy system](#) and investing in [clean technology](#) and [infrastructure](#) will reduce our GHG emissions and help us transition to a low-carbon economy
- ♦ To do our part on climate change, we are [reducing GHG emissions from our own operations](#)
- ♦ Climate change is affecting the health of [coasts and oceans](#) as well as [lakes and rivers](#)
- ♦ [Sustainable agricultural practices](#) can increase carbon sequestration in soil
- ♦ [Forests](#) and other ecosystems act as carbon sinks, helping to mitigate climate change
- ♦ Climate change is exacerbating [air quality issues](#) in some areas of Canada

CANADA IN THE WORLD

Taking action on climate change supports the 2030 Agenda and its global sustainable development goals—in particular SDG 7, Affordable and Clean Energy; SDG 12, Responsible Consumption and Production; SDG 13, Climate Action; and SDG 17, Partnerships for the Goals. It also supports specific SDG targets, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

OUR PARTNERS

Partners and stakeholders across Canada are taking action to reduce GHG emissions, including other governments, businesses, Indigenous Peoples, municipalities, and individual Canadians. In particular, provincial and territorial governments have adopted climate policies tailored to their specific circumstances and priorities.

Provinces and territories have also established climate change adaptation strategies or incorporated resilience into broader climate change strategies, while local health authorities and municipalities are taking steps such as implementing heat alert and response systems and planning flood defences to address projected sea level rise (see Figure 2).

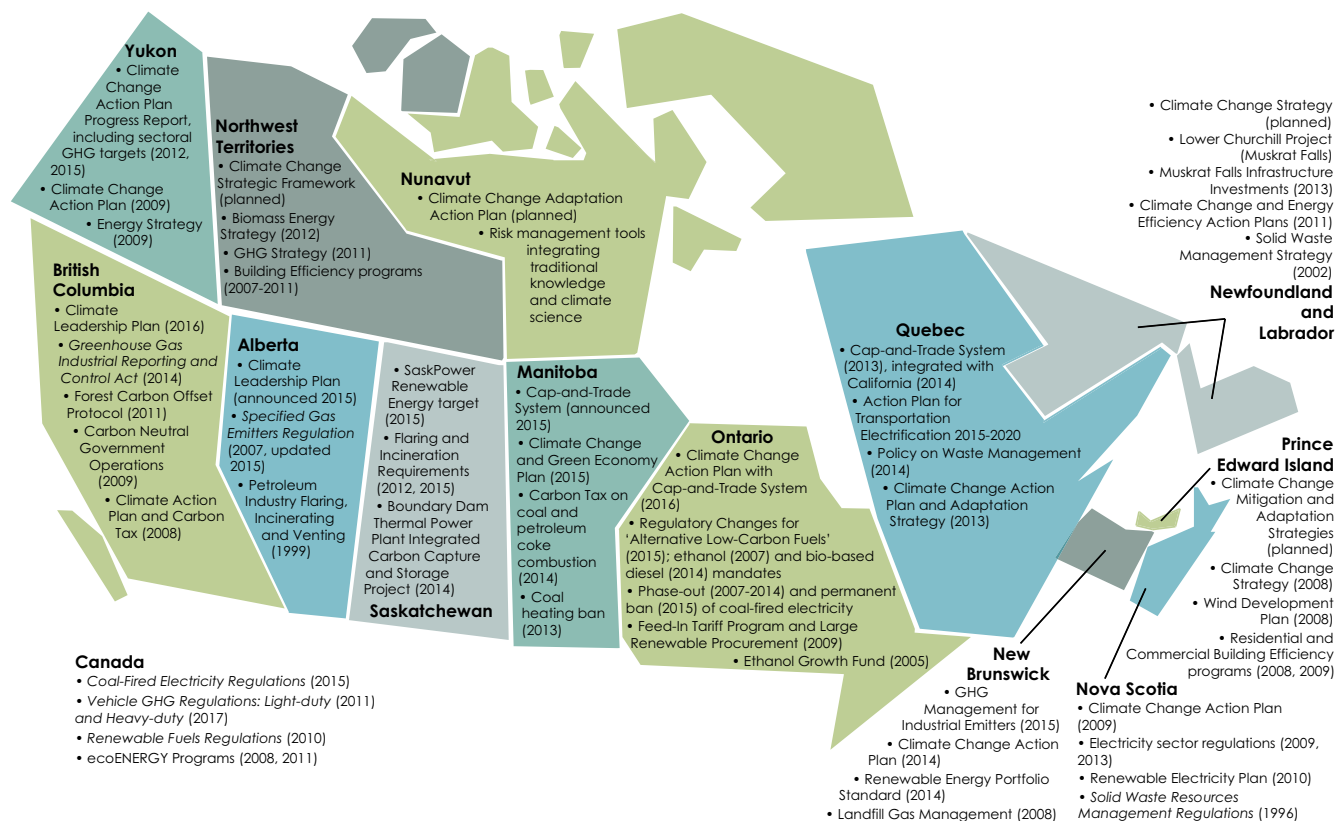
Some industry sectors have made GHG emission reduction commitments and are taking steps to achieve them. For example, Canada's aviation sector is working with the federal government to increase fuel efficiency and decrease GHG emissions under Canada's Action Plan to Reduce Greenhouse Gas Emissions from Aviation.

More than 20 Canadian companies are private sector partners of the Carbon Pricing Leadership Coalition, a voluntary initiative that supports and encourages successful implementation of carbon pricing around the world.

Partners and stakeholders are also active in helping Canadian communities become more resilient to climate change. For example:

- ♦ Some companies are integrating climate considerations into their investment, planning, and operational decisions in order to improve their long-term resilience and competitiveness; and
- ♦ Some professional associations are working to inform and equip their members to address a changing climate in their professional practice.

Figure 2



TAKE ACTION!

- Use public or active transit to get to work
- If you drive, choose a lower-emitting vehicle and avoid idling
- Arrange an EnerGuide home evaluation and act on the results
- Generate or purchase green electricity for your home
- Reduce the amount of waste (including food waste) that you generate; compost and recycle to reduce GHG emissions from landfills and from producing new materials
- Unplug electronics when you're not using them
- Plant trees to increase the urban forest canopy, provide shade, and improve air quality



LOW-CARBON GOVERNMENT



LONG-TERM GOAL

The Government of Canada leads by example by making its operations low-carbon

WHY IS THIS ISSUE IMPORTANT?

We are committed to becoming a leader on climate change. As we move forward on the pan-Canadian framework on clean growth and climate change, we will take action to ensure that we, the federal government, are doing our part and contributing to the broader economy-wide plan.

We have a large real property portfolio that uses a significant amount of energy. We also spend billions each year on goods and services in order to serve Canadians.

Our large footprint means we have an opportunity to support the transition to a low-carbon economy, stimulate the clean tech sector, contribute to Canada's international climate change commitments, and achieve cost savings.

MEDIUM-TERM TARGET

Reduce GHG emissions from federal government buildings and fleets by 40% below 2005 levels by 2030, with an aspiration to achieve it by 2025*

**Achieving the target is dependent on major capital investments, with potential for construction time-delays. Best-case scenarios would allow for attainment.*

SHORT-TERM MILESTONES

- ◆ Be an early adopter of building standards to be established through the pan-Canadian framework on clean growth and climate change for all new government buildings and leases, where applicable
- ◆ Establish a complete and public inventory of federal GHG emissions and energy use
- ◆ Encourage departments to take action to innovate sustainable workplace practices
- ◆ Review procurement practices to align with green objectives

RESPONSIBLE MINISTERS/KEY DEPARTMENTS AND AGENCIES

All ministers/All departments and agencies

CANADA'S STARTING POINT

To measure our progress on **achieving low-carbon government**, we track GHG emissions from our operations. As of 2014–2015, responsible departments and agencies have reduced GHG emissions from their buildings and fleets by 4.6% relative to fiscal year 2005–2006. This amount has since been revised to 15%, based on internationally accepted best practices in accounting for GHG emissions.

PARTNERS TAKING ACTION - REAL PROPERTY ASSOCIATION OF CANADA

[Real Property Association of Canada](#) notes many of the larger pension fund real estate companies, public listed real estate entities and real estate investment trusts are focused on managing energy, water and GHG consumption within their portfolios, adopting LEED1 and BOMA BEST2 standards, and often disclosing intensity metrics for energy, water, waste and carbon within corporate social responsibility reports disclosed to the public. Many Canadian companies are now global leaders according to the globalGRESB3 survey, and LEED has the highest adoption rate in Canada of any other country in the world outside of the US, where LEED was invented.

OUR ACTION PLAN

Key Priorities

Our buildings are the largest source of GHG emissions from our operations, and they will be our key focus in reducing these emissions.

Commitments under Budget 2016 support our target and aspirational goal. Budget 2016 provided more than \$1 billion in new funding for the implementation of Public Services and Procurement Canada's Energy Services Acquisition Project, which will retrofit and modernize six heating and cooling plants which serve more than 80 locations in the National Capital Region. This project is anticipated to reduce the emissions currently generated by these facilities by more than 35%.

Under the North American Climate, Clean Energy and Environment Partnership, we have committed to purchase 100% clean power for all of Public Services and Procurement Canada's facilities by 2025.

To further support the transition to a low-carbon economy, we will act as a "test bed" for emerging clean technologies and add electric and hybrid vehicles to our fleet as appropriate.

CONTRIBUTING ACTIONS

To green our operations, we will reduce energy use in our buildings and fleets, better understand GHG emissions across all of our operations, from all sources, and examine ways to build our resilience. Specifically, we will:

Improve the energy efficiency of our buildings

Be an early adopter of building standards to be established through the pan-Canadian framework on clean growth and climate change; designate energy managers for all National Defence bases and wings; retrofit workplaces to reduce energy consumption and GHG emissions. And, on a voluntary basis, departments will purchase clean power for their facilities.

Modernize our fleet

Support the reduction of energy use in government fleets and the deployment of electric vehicles; support access to workplace electric vehicle charging.

Support the transition to a low-carbon economy through green procurement

Support clean technologies and green products and services by taking environmental considerations into account in our purchasing decisions.

Demonstrate innovative technologies

Support federal government departments and agencies in being the first to use, test, and evaluate state-of-the-art innovations not yet available in the marketplace to address specific departmental needs and increase operational efficiency. The Build in Canada Innovation Program helps companies bridge the pre-commercialization gap by procuring and testing late stage innovative goods and services within the federal government before taking them to market.

Promote sustainable travel practices

Promote sustainable practices for employee travel—including business travel and commuting to work—such as teleconferencing, telecommuting, carpooling, and use of electric vehicles and public transportation. Where feasible, offer offsetting options to reduce the impact of government travel.

Understand climate change impacts and build resilience

Understand and address the wide range of climate change impacts that could potentially affect federal assets, programs and services across the country; ensure service disruptions are avoided. In addition, explore how climate change impacts can be integrated into program design considerations.

Improve transparency and accountability

Align government measurement practices with international standards, adopting a dynamic (real-time) account of GHG emissions generated by electricity grids serving federal facilities. Provide timely updates on progress through full disclosure of emissions.

Develop policy for low-carbon government

Conduct policy research and analysis to support renewal of departmental GHG implementation plans and the development of additional departmental targets to reduce the environmental impact of federal workplace operations

CONNECTIONS WITH OTHER FSDS AREAS

Reducing GHG emissions from our own operations is one way we are [taking action on climate change](#).

PARTNERS TAKING ACTION - TELUS GARDEN

In September 2015, [TELUS garden](#) opened in downtown Vancouver. Home to TELUS headquarters, TELUS garden has received LEED Platinum certification and is the first building in North America to be funded by Green Bonds. Its sustainability features include a district energy system, triple-pane curtain wall design, operable windows, 100% outside-air supply, radiant heating and cooling, solar panels, and a rainwater capture system.

CANADA IN THE WORLD

Doing our part on climate change supports the 2030 Agenda and its global sustainable development goals—in particular SDG 12, Responsible Consumption and Production; and SDG 13, Climate Action. It also supports specific SDG targets, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

OUR PARTNERS

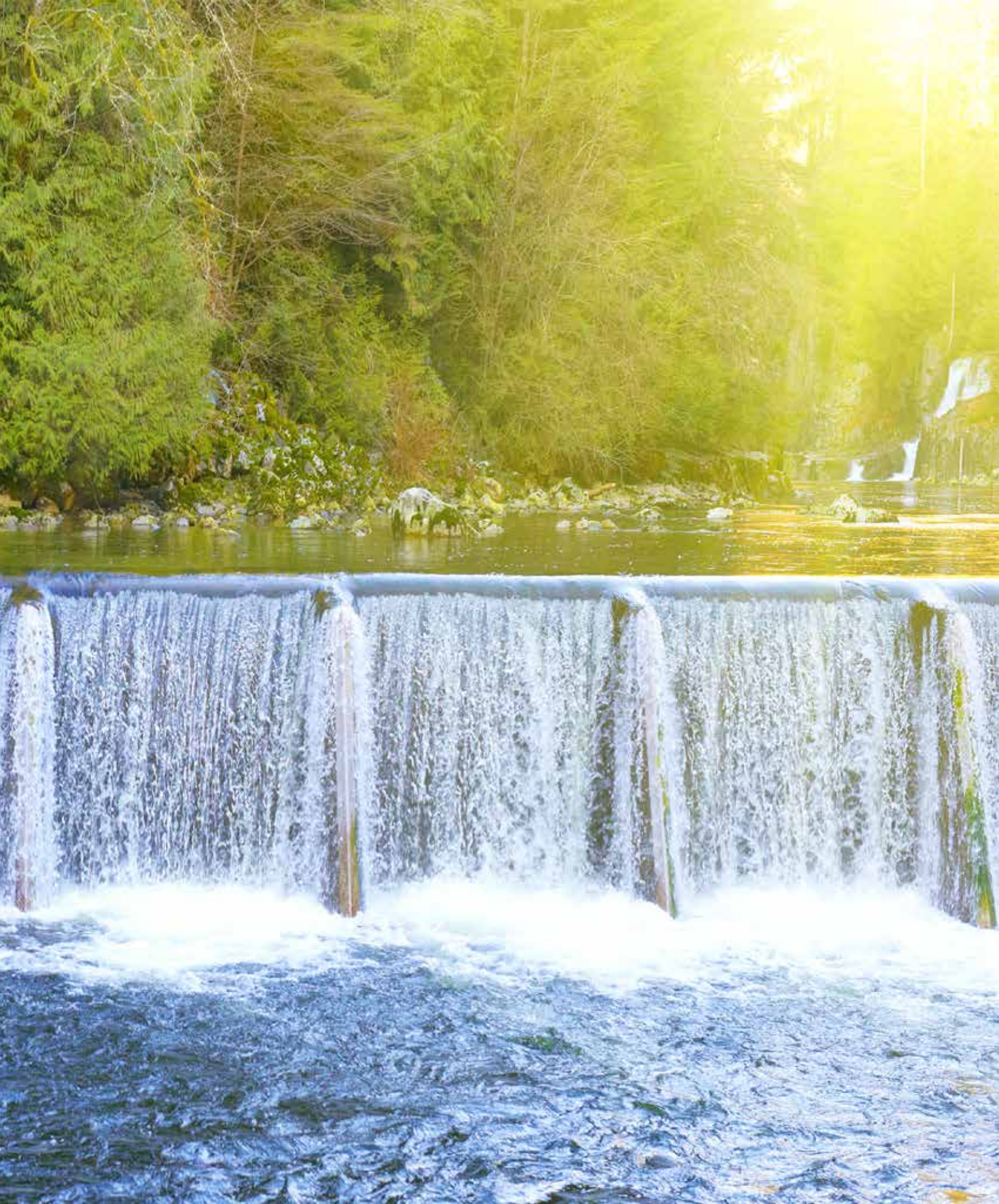
Other governments in Canada are showing leadership in reducing GHG emissions and considering environmental performance in procurement. For example, provinces and territories are implementing energy efficiency standards for their facilities and procuring more efficient products, vehicles and equipment. Some provinces, like British Columbia and Ontario, have committed to moving toward carbon-neutral operations.

Canadian companies are also important partners—their research and development into clean and innovative technologies will help us to reduce our emissions. Additionally, travel partners such as HRG and Air Canada provide opportunities to offset emissions from travel.

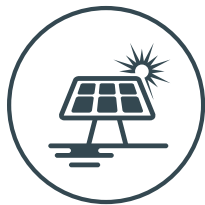
TAKE ACTION!

Reduce GHG emissions in your own workplace:

- Encourage employees and co-workers to bike, walk or take public transit to work
- Make use of video and teleconference services
- Turn off computers and other equipment at the end of your work day
- Use energy-efficient lighting



CLEAN GROWTH



LONG-TERM GOAL

A growing clean technology industry in Canada contributes to clean growth and the transition to a low-carbon economy

WHY IS THIS ISSUE IMPORTANT?

We know that a clean environment and a strong economy must go hand in hand in the modern world. Investing in clean technology and supporting innovation will help us transition to a low-carbon economy, achieving both economic and environmental benefits.

Among others, the benefits of clean technology include lower GHG emissions and increased resilience to climate change, healthier communities, and more sustainable and competitive economic sectors.

Canada's clean technology industries are at the forefront of clean growth. Through our investments, we can support their efforts, helping to reduce GHG emissions, address environmental problems such as air and water pollution, make Canadian companies more competitive, and create clean jobs.

MEDIUM-TERM TARGET

Implement our Mission Innovation commitment to double federal government investments in clean energy research, development and demonstration, by 2020, from 2015 levels

SHORT-TERM MILESTONE

- ♦ Develop an Inclusive Innovation Agenda by 2017
- ♦ Develop a clean technology strategy for Canada's natural resource sectors by 2017

RESPONSIBLE MINISTERS/KEY DEPARTMENTS AND AGENCIES

Minister of Innovation, Science and Economic Development; Minister of Natural Resources/Atlantic Canada Opportunities Agency; Canada Economic Development for Quebec Regions; Canadian Northern Economic Development Agency; Federal Economic Development Agency for Southern Ontario; Federal Economic Development Initiative for Northern Ontario; Innovation, Science and Economic Development Canada; Natural Resources Canada; Standards Council of Canada; Sustainable Development Technology Canada; Statistics Canada; Western Economic Diversification Canada

CANADA'S STARTING POINT

To measure the **growth of Canada's clean technology sector**, funding is provided to Statistics Canada to define the industries in the sector, establish the 2015 baseline on the industry by 2018, and track the contribution of clean technology to GDP, as well as the number of jobs related to clean technology.

PARTNERS TAKING ACTION - NEI INVESTMENTS

As an investment management company, [NEI Investments](#)' main impact on the environment and sustainable development is through its investment decision-making and engagement activities. Themes that influence its investment decisions include climate change and the energy transition, human rights, and responsible food production. Its engagement activities include dialogue with investee companies, proxy voting, public policy and standards work, and participation in multi-stakeholder initiatives.

OUR ACTION PLAN

Key priorities

We recognize that clean technologies provide the pathway for GHG emissions mitigation and more sustainable growth of all areas of the economy, including transportation, natural resources development, manufacturing, construction, utilities and others.

In the context of developing a pan-Canadian framework on clean growth and climate change, we are working with provinces and territories—as well as National Indigenous Organizations, industry stakeholders and experts—to explore how to stimulate economic growth, create jobs, and drive innovation across all sectors to transition to a low-carbon economy, leveraging regional strengths.

Work with our partners is focused on four important areas:

- Building early-stage innovation;
- Accelerating commercialization and growth;
- Fostering greater adoption; and
- Strengthening collaboration and metrics for success.

We have committed to significant investments in clean technologies that will support an Inclusive Innovation Agenda. Budget 2016 provided over \$1 billion over four years to support clean technology, including in the forestry, fisheries, mining, energy and agriculture sectors. Our commitments include:

- \$20 million over eight years to establish two new Canada Excellence Research Chairs in fields related to clean and sustainable technology;
- \$50 million over four years to Sustainable Development Technology Canada for the SD Tech Fund;
- \$82.5 million over two years to Natural Resources Canada to support research, development and demonstration of clean energy technologies; and
- Doubling Regional Development Agencies' annual aggregate support for clean technology to \$100 million per year, from existing resources.

Investing in clean energy technology will support our commitments under Mission Innovation—a global initiative that will see partner countries double government investments in clean energy innovation over five years—as well as our international climate change commitments.

We will also take action to help Canadians gain the skills they need to participate in the clean growth economy—for example, by introducing reforms to the Canada Student Loans Program to make post-secondary education more affordable, investing in the Youth Employment Strategy (including providing funding to create green jobs for youth), and strengthening union-based apprenticeship training.

CONTRIBUTING ACTIONS

To foster research and development of new technologies and accelerate innovation, we will:

Invest in technologies to reduce GHG and air pollutant emissions

Support the development, demonstration, commercialization, deployment, adoption and export of technologies that reduce GHG and air pollutant emissions. This work will leverage regional strengths and help to improve productivity, competitiveness, and environmental performance in sectors such as energy, mining, building, and waste management, and the manufacturing sector, including in the aerospace and automotive industries.

Work with partners on developing and adopting new technologies to reduce GHG and air pollutant emissions

Work with provinces, territories, Indigenous communities, business, industry, technology producers, and academia to implement shared approaches to reducing GHG emissions and improving air quality—for example, by:

- ◆ Promoting standard accreditation services;
- ◆ Making strategic investments in GHG emission reduction related technologies;
- ◆ Promoting the adoption of new technologies;
- ◆ Improving the role of codes and standards;
- ◆ Supporting clean technology development and demonstration through Sustainable Development Technology Canada and the Green Municipal Fund; and

- ♦ Collaborating on strategies to minimize dependence on fossil fuel electricity generation in northern and remote communities.

Deliver on Canada's Mission Innovation goal of doubling federal investments by 2020 in research, development and demonstration of clean energy technologies.

Support voluntary action to reduce GHG and air pollutant emissions

Encourage businesses, provinces, territories and Canadians to take action to reduce GHG and air pollutant emissions—for example, by:

- ♦ Supporting businesses, including co-operatives and other social enterprises, with sustainability goals and green technology projects;
- ♦ Supporting and providing accreditation for GHG and air pollutant emissions verification; and
- ♦ Developing and promoting standards and codes of practice that promote environmental sustainability, such as the ISO 14034 – Environmental management – Environmental technology verification (to be published in fall 2016).

CONNECTIONS WITH OTHER FSDS AREAS

Investing in clean technology and innovation supports economic growth, as well as FSDS targets related to climate action, clean energy, and building safe and healthy communities:

- ♦ Clean technology can [reduce GHG emissions and increase climate resilience](#)
- ♦ Investing in clean energy technology will [make Canada's energy system more sustainable](#)
- ♦ Investing in clean technology [reduces reliance on fossil-fuel generated electricity in northern and remote areas](#) and supports [healthy and sustainable communities](#)
- ♦ Investing in clean technology is helping sectors such as [forestry](#), [fisheries](#), mining, [energy](#), [agriculture](#) and manufacturing, and their related supply chains, become more sustainable and competitive

CANADA IN THE WORLD

Investing in clean technology and innovation supports the 2030 Agenda and its global sustainable development goals—in particular SDG 9, Industry, Innovation and Infrastructure; and SDG 12, Responsible Consumption and Production. It also supports specific SDG targets, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

OUR PARTNERS

Canada's clean technology sector and other Canadian businesses, academic institutions, Indigenous organizations, provinces and territories, and municipalities all play a role in advancing clean technology. Canadian companies are taking the lead in developing and adopting technologies that contribute to a low-carbon economy. Meanwhile, provinces, territories and others are working to further encourage technology research, development and adoption. For example:

- ♦ British Columbia's [#BCTECH Strategy](#) includes measures to increase adoption and exports of clean technologies.
- ♦ Ontario supports the [Ontario Centres of Excellence](#), a not-for-profit program that helps to commercialize academic research and invests in early-stage projects with commercial potential.
- ♦ Quebec's [Technoclimat Program](#) encourages the development of new technologies and innovative processes related to energy efficiency and emerging energy sources.
- ♦ Nova Scotia's [Innovacorp](#) is the province's early stage venture capital organization. It provides early-stage investment, as well as hands-on business advisory services.
- ♦ [Cold Climate Innovation](#) at the Yukon Research Centre provides seed money to individuals and companies to develop prototypes that can be tested and moved towards commercialization.
- ♦ Clusters of business incubators and accelerators like Toronto's [MaRS Discovery District](#) and the [DMZ at Ryerson University](#) connect investors, educators, researchers, social scientists, entrepreneurs and business experts.

In support of Mission Innovation initiatives, Canada is working with 20 international partners to advance global clean energy leadership, including the US, Mexico, France, the UK, Germany, India and China.



MODERN AND RESILIENT INFRASTRUCTURE



LONG-TERM GOAL

Modern, sustainable, and resilient infrastructure supports clean economic growth and social inclusion

WHY IS THIS ISSUE IMPORTANT?

Green infrastructure—including water and wastewater systems, clean energy, climate resilient infrastructure like flood mitigation systems, and infrastructure to protect against a changing climate—protects the natural environment, supports healthy and resilient communities, drives economic growth, and improves our quality of life.

We need modern water and wastewater facilities to ensure that Canadians have clean water to drink and to protect our lakes, rivers and oceans from pollution. Clean energy infrastructure will help decrease GHG emissions and air pollution. And as the impacts of climate change continue to manifest, climate resilient infrastructure that protects Canadians will become increasingly important to sustain economic, environmental and social well-being.

In addition to green infrastructure, other infrastructure investments—for example, investments to provide affordable housing and upgrade public transit—can also contribute to environmental sustainability, economic prosperity and improved quality of life.

MEDIUM-TERM TARGET

By the end of 2025–2026, invest \$20 billion in funding for green infrastructure initiatives that reduce GHG emissions and improve climate resilience and environmental quality

SHORT-TERM MILESTONES

- ◆ Before the end of 2016–2017, have implemented initiatives under Phase 1 of Infrastructure Canada's two-phased infrastructure plan in relation to green infrastructure, including investments of \$2 billion in new clean water and wastewater funding
- ◆ Before the end of 2017–2018, have developed and begun implementation of Phase 2 of Canada's long-term infrastructure plan to deliver new green infrastructure funding to provinces, territories and municipalities to ensure increased investments in green infrastructure

RESPONSIBLE MINISTER/KEY DEPARTMENTS AND AGENCIES

Minister of Infrastructure and Communities/Indigenous and Northern Affairs Canada; Infrastructure Canada; Natural Resources Canada

CANADA'S STARTING POINT

- ◆ To measure the **environmental impact of our infrastructure investments**, we will track the average percentage decrease in volume of water leakage and/or infiltration that can be attributed to funded investments. We will also track the number of systems that have improved the quality of wastewater effluent or storm water discharge as a result of funded investments.
- ◆ Infrastructure Canada will work with Statistics Canada to improve **infrastructure-related data**, which will support better information on the state and performance of core public infrastructure assets for all levels of government.

OUR ACTION PLAN

Key priorities

Over the next ten years, we will deliver significant new funding to provinces, territories, municipalities, and Indigenous communities to support infrastructure investments in two phases under three streams—public transit, green infrastructure, and social infrastructure

While all infrastructure funding will play a role in supporting sustainable development, green infrastructure funding in particular will focus on initiatives that support environmental outcomes and objectives. It will help to modernize and upgrade water and wastewater systems, support the transition to a low-carbon economy, and help Canadian communities, including Indigenous Peoples, adapt to climate change.

Green infrastructure initiatives currently being implemented under Phase 1 of the infrastructure plan across a number of departments include:

- \$2 billion through a Clean Water and Wastewater Fund to provide communities with more reliable water and wastewater systems and ensure both drinking water and wastewater effluent meet legislated standards;
- \$2.24 billion over five years to First Nation communities to improve water and wastewater infrastructure and waste management;
- \$125 million over two years to the Federation of Canadian Municipalities to enhance the Green Municipal Fund;
- \$75 million in new funding for local governments to address climate change;
- \$50 million for a capacity-building fund to support the use of asset management best practices across Canada;
- \$62.5 million over two years to support the deployment of infrastructure for alternative transportation fuels, including charging infrastructure for electric vehicles and natural gas and hydrogen refueling stations;
- \$40 million over five years to integrate climate resilience into building design guides and codes;
- \$2.5 million over two years to facilitate regional dialogues and studies that identify electricity infrastructure projects with the potential to achieve significant GHG reductions; and
- \$413 million for two adaptation and climate resilient infrastructure projects—Lake Manitoba and Lake St. Martin Outlet Channels Project and the Lions Gate Wastewater Treatment Plant.

We are engaging with our provincial, territorial, municipal and Indigenous partners, as well as global institutional investors and other stakeholders, and will announce Phase 2 of the long-term infrastructure plan in the next year. Phase 2 investments will further advance our commitments to GHG emission reduction, climate resilience and improved environmental quality.

In addition, we are pleased to support Private Member's Motion M-45, introduced by Mr. Andy Fillmore (MP for Halifax) on May 5, 2016. The motion proposes that analyses of the impacts of GHG emissions of government infrastructure projects be considered, and where appropriate, funding be prioritized for infrastructure proposals that mitigate climate change.

CONTRIBUTING ACTIONS

In the short term, under Phase 1 of the long-term infrastructure plan, we will:

Work with partners on green infrastructure

- ♦ Work with provinces, territories and other stakeholders to implement shared approaches to improving water and wastewater infrastructure, as well as support actions to reduce GHG emissions and improve air quality. This includes funding to be delivered by the Federation of Canadian Municipalities for local governments to support municipality-led projects to identify and implement GHG reduction opportunities and to enhance the Green Municipal Fund, which finances and funds innovative, municipal green infrastructure priorities.

CONNECTIONS WITH OTHER FSDS AREAS

Investing in infrastructure supports FSDS targets related to sustainable economic growth, climate action, and building safe and healthy communities:

- ♦ Investments in green infrastructure can [reduce GHG emissions](#), protect communities from climate impacts and [reduce air pollution](#)
- ♦ Investing in wastewater infrastructure helps [prevent water pollution](#) and protect sources of [drinking water](#)

CANADA IN THE WORLD

Investing in infrastructure supports the 2030 Agenda and its global sustainable development goals—in particular SDG 9, Industry, Innovation and Infrastructure. It also supports a specific SDG target, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

OUR PARTNERS

Municipalities, provinces and territories own most of Canada's public infrastructure and are essential partners in infrastructure investment. We are committed to working collaboratively with provincial, territorial, and municipal governments on their infrastructure priorities.

PARTNERS TAKING ACTION - HAMILTON STREET RAILWAY

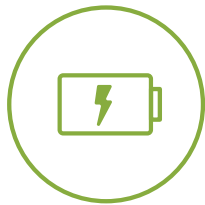
In September 2015, the [City of Hamilton](#) installed a new compressed natural gas fuel station, allowing the city's capacity for natural gas buses to grow from 35 to 120 vehicles over the next six years. The projected cost savings are about \$40 million over the next 20 years with GHG emission reductions of about 25%—equivalent to removing 18,105 passenger cars from the road.

TAKE ACTION!

- Consider making energy-efficient renovations to your home, such as adding insulation, caulking and weather-stripping, improving or replacing windows and doors, and upgrading your heating and cooling equipment
- Look for opportunities to walk, bike, or take public transit instead of using a car.
- Support municipal green infrastructure projects and initiatives



CLEAN ENERGY



LONG-TERM GOAL

All Canadians have access to affordable, reliable and sustainable energy

WHY IS THIS ISSUE IMPORTANT?

Canada already has one of the world's cleanest electricity systems, and clean technology is bringing innovative energy solutions to the forefront.

Building on this success will be the key to achieving a low-carbon economy. In addition to reducing our GHG emissions, a cleaner energy system will provide benefits such as increased climate resilience and decreased impacts on land and wildlife species.

To make progress, we need to accelerate the development and adoption of renewable energy and other clean energy technologies while reducing our demand for energy by using it more efficiently.

Steps to promote clean energy will include substantially reducing our use of coal-fired electricity—complementing action by provinces and territories—and helping Indigenous and northern communities reduce their reliance on diesel for heat and electricity.

MEDIUM-TERM TARGETS

- ♦ By 2030, 90% and in the long term, 100% of Canada's electricity is generated from renewable and non-emitting sources
- ♦ By 2025, contribute to the North American goal of 50% clean power generation
- ♦ By 2019, there is a favourable five-year trend in renewable electricity capacity compared to overall electricity sources, from a 2014 level of 64.4%

SHORT-TERM MILESTONE

Work with provinces and territories, including through the Canadian Energy Strategy, to increase renewable energy's share of total electricity supply

RESPONSIBLE MINISTER/KEY DEPARTMENTS AND AGENCIES

Minister of Natural Resources/Atlantic Canada Opportunities Agency; Indigenous and Northern Affairs Canada; Natural Resources Canada; Sustainable Development Technology Canada

CANADA'S STARTING POINT

- ♦ To measure our **progress on clean energy**, we track the proportion of Canada's electricity generation that comes from renewable and non-emitting sources. In 2014, 64.4% of Canada's electricity came from renewable sources (mainly hydroelectricity), and 80% came from non-emitting sources (including nuclear). We export about 10% of electricity generated in Canada to the United States, corresponding to 2% of US consumption.
- ♦ To measure **progress towards the North American clean power generation target**, we will track the proportion of clean electricity in North America. In 2013, clean electricity represented 37% of total North American power generation.

OUR ACTION PLAN

Key priorities

We will work with provinces and territories to advance the Canadian Energy Strategy, with the objective of ensuring the sustainable development and use of the full range of Canada's energy assets as Canada moves towards a lower-carbon future. Actions are underway in three areas:

- Improving energy efficiency;
- Enhancing clean energy technology; and
- Delivering energy to people (electricity and renewables).

Canada will work with the US and Mexico to implement the North American Climate, Clean Energy and Environment Partnership—for example, by reducing emissions of methane from the oil and gas sector, contributing to the North American target of 50% clean power generation by 2025, and increasing the proportion of clean electricity used in our own operations.

We have committed to make significant investments in clean energy—for example, Budget 2016 provided:

- \$62.5 million over two years to support the deployment of infrastructure for alternative transportation fuels, including charging infrastructure for electric vehicles and natural gas and hydrogen refuelling stations;
- \$128.8 million over five years to deliver energy efficiency policies and programs and maintain clean energy policy capacity;
- \$2.5 million over two years to facilitate regional dialogues and studies that identify electricity infrastructure projects with the potential to achieve significant GHG reductions;
- \$50 million over two years to invest in technologies that will reduce GHG emissions from the oil and gas sector; and
- \$10.7 million over two years to support renewable energy projects in off-grid Indigenous and northern communities.

Budget 2016 also expanded eligibility for accelerated capital cost allowance to include electric vehicle charging stations. Other actions to support clean energy will include enhancing environmental performance and rebuilding public trust in the energy system.

CONTRIBUTING ACTIONS

To scale up renewable energy and other clean energy technologies, we will:

Invest in clean energy technologies

Support the production of renewable electricity and develop technologies related to energy efficiency, natural gas, and renewable energy. Invest in research, development and promotion of clean technologies for electric power generation, reduced emissions from the oil and gas sector, electric vehicle charging infrastructure and energy storage technologies.

Promote collaboration and work with partners on clean energy

Work with other governments and the private sector to improve the development of clean and renewable energy sources, including through:

- ♦ The Canadian Energy Strategy;
- ♦ The Atlantic Energy Gateway initiative;
- ♦ The Northern REACHE program; and
- ♦ The Regional Electricity Cooperation and Strategic Infrastructure Initiative.

Foster collaboration and communication between governments and the private sector to identify the most promising electricity infrastructure projects and improve the development of clean and renewable resources in the regions.

Support voluntary action to reduce GHG and air pollutant emissions through clean energy generation and consumption

Encourage businesses to adopt clean energy technologies through the accelerated capital cost allowance for clean energy generation and by supporting clean energy generation.

Play a leading role in international agreements and initiatives involving clean energy

Ensure Canada plays a leading role in international efforts to advance Canadian climate change priorities related to clean energy technology.

CONNECTIONS WITH OTHER FSDS AREAS

Investing in clean energy supports FSDS targets related to resilience, climate action, and innovation:

- ♦ Building a cleaner energy system will [reduce our GHG emissions](#), while diversifying Canada's energy mix will increase our resilience to climate change
- ♦ [Investing in clean energy technology](#) will make Canada's energy system more sustainable
- ♦ Making energy exploration more sustainable includes reducing its impact on the land, [helping to protect natural spaces](#) and [biodiversity](#)

TAKE ACTION!

- Arrange an [EnerGuide home evaluation](#) to learn more about your home's energy performance and how you can improve it
- Consider making energy-efficient renovations to your home, such as adding insulation, caulking and weather-stripping, improving or replacing windows and doors, and upgrading your heating and cooling equipment
- Choose a builder who offers energy-efficient new homes such as ENERGY STAR or R-2000
- Generate or purchase green electricity (for example, solar or wind) for your home
- Choose energy-efficient appliances and lightbulbs
- Unplug electronics when you're not using them

CANADA IN THE WORLD

Investing in clean energy supports the 2030 Agenda and its global sustainable development goals—in particular SDG 7, Affordable and Clean Energy. It also supports a specific SDG target, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

OUR PARTNERS

Canada is working alongside the US and Mexico to implement the North American Climate, Clean Energy, and Environment Partnership. Provinces and territories are also taking action for a cleaner energy system—for example, by working together and with us to advance the Canadian Energy Strategy.

Individual provinces and territories are also taking important steps. For example, in 2014 Ontario became the first jurisdiction in North America to eliminate coal in electricity generation, while Quebec has adopted a Residual Materials Management Policy that promotes energy production from organic waste.

PARTNERS TAKING ACTION - GREEN AVIATION RESEARCH AND DEVELOPMENT NETWORK (GARDN)

[GARDN initiatives](#) include a Canadian airline using one of its planes to conduct the first biofuel-powered revenue flight in Canada, with the potential to reduce by 70% carbon dioxide emissions in collaboration with Bombardier and Pratt & Whitney Canada. The National Research Council flew the first civil jet powered by 100% unblended biofuel that could lead to a 1.5% in specific fuel consumption, to a reduction in particle number (up to 25%) and black carbon (up to 50%) and a 50% carbon dioxide emissions reduction in collaboration with [Agrisoma](#) and Transport Canada.



HEALTHY COASTS AND OCEANS



LONG-TERM GOAL

Coasts and oceans support healthy, resilient and productive ecosystems

WHY IS THIS ISSUE IMPORTANT?

Canada has unparalleled ocean resources and protecting our waters is critical to the lives and livelihoods of all Canadians.

Coasts and oceans are facing challenges such as climate change, whose impacts include rising sea level and loss of marine habitat. Development and marine shipping are increasing, posing environmental risks such as the potential for oil spills. And, while our fisheries are increasingly sustainable, we need to continue to take action to ensure they provide benefits to Canadians over the long term.

Conserving coastal and ocean areas helps address environmental challenges, and we are committed to preserving and expanding marine protected areas (MPAs). In doing so, we will recognize the role of Indigenous Peoples in Canada and in the traditional use of these special places.

MEDIUM-TERM TARGETS

- ◆ By 2020, 10% of coastal and marine areas are conserved through networks of protected areas and other effective area-based conservation measures
- ◆ By 2020, all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem-based approaches starting at 96% in 2015

SHORT-TERM MILESTONES

- ◆ Protect the marine environment through an annual 5% reduction in the number of releases and volume of harmful pollutants in the marine environment by vessels identified during pollution patrol from 2016–2019
- ◆ By 2017, 5% of coastal and marine areas are conserved through networks of protected areas and other effective area-based conservation measures
- ◆ In 2016–2019, continue to monitor Canada's ocean disposal sites and ensure a high percentage of monitored sites are being used sustainably

RESPONSIBLE MINISTER/KEY DEPARTMENTS AND AGENCIES

Minister of Fisheries, Oceans and the Canadian Coast Guard/Canadian Coast Guard; Environment and Climate Change Canada; Fisheries and Oceans Canada; Natural Resources Canada; Parks Canada; Transport Canada

CANADA'S STARTING POINT

- ◆ To assist in the measurement of **coastal ecosystem health**, we currently track the quality of shellfish growing area. In 2010, 73% of Canada's shellfish growing area was classified as approved or conditionally approved for shellfish harvesting for human consumption. Going forward, we will also track the presence of eelgrass, a marine plant species that is sensitive to environmental change.
- ◆ To measure our success in **conserving coasts and oceans**, we track protected coastal and marine area as a percentage of total marine territory. From 1990 to 2014, protected coastal and marine area increased from 0.34% of Canada's marine territory to 0.9%.
- ◆ To measure the **sustainability of our fisheries**, we track the proportion of major fish stocks harvested at levels considered to be sustainable. In 2015, 96% of 159 major fish stocks were managed and harvested at levels considered to be sustainable, up from 90% in 2011. In addition, we track the status of major fish stocks. In 2015, 49% of 159 major fish stocks were classified as in the healthy zone, 20% were classified in the cautious zone, 12% were classified as in the critical zone, and 19% were not classified in any of the three precautionary approach zones due to information gaps.
- ◆ To measure how well we are **protecting coasts and oceans from pollution**, we track the number and volume of pollutant spills from ships, as well as the percentage of ocean disposal sites requiring no management action (that is, no change to how waste is managed at a site). In 2013–2014, we detected 44 spills from identified vessels, compared with 21 in 2009–2010 (however, patrol hours also increased 70% in the same period). In 2014, 100% of monitored ocean disposal sites required no management action, indicating that they were being used sustainably.

OUR ACTION PLAN

Key priorities

We are committed to protecting Canada's coasts and oceans and keeping them healthy for future generations, and Budget 2016 provided \$123.7 million over five years to support marine conservation activities, including the designation of new MPAs. To meet our target, we need to conserve an additional 525,000 square kilometres of marine and coastal area by 2020. Provincial and territorial marine protection mechanisms will also help us reach the 10% target.

We are committed to meeting our international targets by putting in place a five-point plan to finish what was started, protect pristine areas, protect areas under pressure, advance other effective area-based conservation measures, and establish MPAs faster.

We are developing a coastal strategy that will help protect coasts and oceans from pollution. It will include formalizing a moratorium on crude oil tanker traffic on British Columbia's North coast, as well as other actions such as addressing the growing problem of derelict vessels in Canadian waters.

Managing our fisheries sustainably is another way we can keep oceans healthy, and we are committed to managing fisheries using precautionary and ecosystem-based approaches supported by scientific evidence. We have also committed to act on recommendations of the Cohen Commission to restore sockeye salmon stocks in the Fraser River, and to work with partners to promote innovation and clean technology in the fisheries sector.

Budget 2016 provided \$197.1 million over five years to increase ocean and freshwater science. This means 29 new scientists, biologists, oceanographers, and technicians in the Pacific Region. These new staff will allow us to take actions to support a number of Cohen Commission recommendations.

We are increasing our support for local, Indigenous and recreational fisheries. For example, we have announced measures to increase recreational fishing opportunities and Indigenous access to the recreational Striped bass fisheries in the Gulf of St. Lawrence waters bordering New Brunswick, Prince Edward Island and Nova Scotia. We are also investing \$289 million this year in Canadian small craft harbours, which provide critical support to the commercial fishing industry.

Work under this goal will support progress toward the 2020 Biodiversity Goals and Targets for Canada and the global conservation objectives of the United Nations Convention on Biological Diversity—in particular, by supporting our commitment to conserve 10% of our coastal and marine area by 2020.

CONTRIBUTING ACTIONS

To support healthy coasts and oceans, we will:

Protect and manage marine and coastal areas

Adopt an integrated management approach for ocean activities. This will include:

- ♦ Working with provinces and territories to develop networks of MPAs; and
- ♦ Establishing and managing individual *Oceans Act* MPAs, national marine conservation areas, marine national wildlife areas, and other effective area-based conservation measures.

Build our knowledge of coastal ecosystems, MPAs and fisheries

In support of our work in the Arctic, increase our knowledge of potential impacts of marine accidents on the Arctic environment. Continue to develop draft monitoring protocols for MPAs, provide evidence-based advice to decision makers on marine ecosystems and environmental

stressors, and improve our knowledge of fisheries resources, their productivity and factors affecting them to support sustainable fisheries management.

Use legislation and regulations to protect coasts and oceans

Implement laws and regulations to protect coasts and oceans from pollution and ensure fisheries are sustainable. For example:

- ♦ Implement regulations under the *Fisheries Act* to reduce risks from wastewater and industrial effluent;
- ♦ Enhance enforcement of regulations that prohibit the release of pollutants from ships; and
- ♦ Regulate disposal at sea under the *Canadian Environmental Protection Act, 1999*.

Implement policies for sustainable fisheries

Continue to implement Canada's Sustainable Fisheries Framework policies. The Framework provides the foundation for an ecosystem approach to fisheries management.

PARTNERS TAKING ACTION - DUCKS UNLIMITED CANADA

Protecting and restoring coastal ecosystems is critical on many fronts, not the least of which is adaptation to sea level rise. At its Beaubassin Research Centre near the New Brunswick/Nova Scotia border, [Ducks Unlimited Canada](#) has been working with Acadia University and Irving Oil on research around restoration of coastal ecosystems and adaptation to rising sea level.

Work with partners to protect and restore coastal ecosystems

Provide opportunities for collaboration and work with domestic and international partners to protect and restore coastal ecosystems. This will include:

- ♦ Advancing the Arctic Marine Transportation Strategy;
- ♦ Implementing the Northern Marine Transportation Corridors Initiative; and
- ♦ Continuing to report on the health of the Salish Sea.

CONNECTIONS WITH OTHER FSDS ISSUES

Protecting coasts and oceans relates to other areas covered by the FSDS, including climate change and biodiversity.

- ♦ [Climate change](#) is affecting the health of coasts and oceans
- ♦ Marine and coastal areas provide habitat that [species at risk](#) need to recover and thrive
- ♦ Coastal and marine ecosystems [capture and store carbon](#) and contribute to climate resilience
- ♦ MPAs and national marine conservation areas provide opportunities to [connect with nature](#)
- ♦ [Supporting water stewardship and preventing pollution](#) helps reduce risks to fish and their habitat

CANADA IN THE WORLD

Protecting coasts and oceans supports the 2030 Agenda and its global sustainable development goals—in particular SDG 14, Life Below Water. It also supports specific SDG targets, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

OUR PARTNERS

Indigenous Peoples, provinces, territories and stakeholders play an important role in coastal and ocean management, including by working with us to develop MPA networks and by participating in the establishment, management and monitoring of individual marine protection mechanisms. We work with the US and the international community, provinces and territories, Indigenous Peoples, and others to ensure that fisheries are managed sustainably. For example:

- ♦ Indigenous Peoples participate in fisheries management in accordance with treaties and land claims agreements and in recognition of Aboriginal rights to fish for food, social and ceremonial purposes; and
- ♦ Provinces and territories exercise delegated responsibilities related to sustainable fisheries, such as managing recreational fisheries.

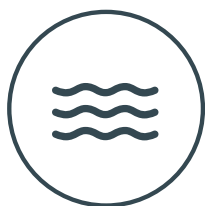
We also work with partners to prevent and address marine pollution. For example, under our “polluter pays” approach, the shipping industry is accountable for organizing and funding a response to any spill they cause, while Canada’s port authorities are also taking action to prevent marine pollution.

TAKE ACTION!

- Connect with coastal and ocean ecosystems—visit an MPA or national marine conservation area
- Help clean up a beach in your community: check out the [Great Canadian Shoreline Cleanup](#)
- If you see an oil spill or oiled wildlife, [report it](#) to the Canadian Coast Guard
- Choose sustainable Canadian fish and shellfish
- Consider contacting the [Canadian Biosphere Reserves Association](#) to explore the potential to designate an area near you as a [UNESCO Biosphere Reserve](#)



PRISTINE LAKES AND RIVERS



LONG-TERM GOAL

Clean and healthy lakes and rivers support economic prosperity and the well-being of Canadians

WHY IS THIS ISSUE IMPORTANT?

Lakes and rivers across Canada—from the Fraser, to the Mackenzie, to the Great Lakes and the St. Lawrence, to the Churchill—sustain a rich variety of plants and animals, supply drinking water to millions of Canadians, provide opportunities for swimming, boating and recreational fishing, and support economic activities such as tourism, commercial fisheries, agriculture and shipping.

Many lakes and rivers have been impacted by water contamination; climate change, which can amplify the effects of pollution; and the introduction and spread of invasive alien species. For example, untreated run-off and undertreated wastewater have caused nutrient levels in some lakes and rivers to become too high, leading to algal blooms that can make water unsafe for drinking, swimming and fishing.

MEDIUM-TERM TARGETS

Reduce nutrient pollution to lakes and rivers

- ♦ By 2025, reduce phosphorus loading into Lake Erie by 40% to achieve the binational (Canada-US) phosphorus targets from a 2008 baseline
- ♦ Reduce an additional estimated 2000 kilograms of phosphorus per year to Lake Simcoe in support of Ontario's target to reduce phosphorus inputs into Lake Simcoe to 44,000 kilograms of phosphorus per year by 2045

Restore lake and river ecosystems

- ♦ By 2019, 85% of the indicators of the Overview of the State of the St. Lawrence, including phosphorus and nitrogen, achieve a result considered intermediate or better to improve water quality, conserve biodiversity and ensure sustainable use of the river
- ♦ By 2019, restore beneficial uses that will assist in the delisting five Canadian Great Lakes Areas of Concern (AOCs). In the remaining AOCs, increase the number of beneficial use impairment re-designations from 18 in 2014 to 30 in 2019

SHORT-TERM MILESTONES

- ♦ By February 2018, support the reduction of phosphorus loads into Lake Erie through the development of Domestic Action Plans
- ♦ Release a Progress Report on the Great Lakes Water Quality Agreement in 2016 and a report on State of the Great Lakes environmental indicators in 2017
- ♦ By 2017, reduce nutrient loadings in the Lake Winnipeg Basin by an estimated 10,800 kilograms in support of Manitoba's plan to reduce phosphorus in Lake Winnipeg by 50% to pre-1990 levels
- ♦ Reduce an estimated 2000 kilograms of phosphorus loadings to the South-eastern Georgian Bay watershed by 2017
- ♦ Work with Ontario, local governments, First Nations, Métis, watershed management agencies, other local public agencies, and community members to implement Remedial Action Plans to restore a total of 81 impaired beneficial uses across all 14 remaining AOCs, and to assess approximately 20 other beneficial uses to confirm their impairment status
- ♦ Renew federal funding to the Experimental Lakes Area in Northwestern Ontario to support scientific research related to freshwater ecosystems, particularly the impacts of aquatic invasive species
- ♦ Maintain high compliance rates with *Fisheries Act* regulations to reduce risks from metal mining and pulp and paper effluent

RESPONSIBLE MINISTER/KEY DEPARTMENTS AND AGENCIES

Minister of Environment and Climate Change/Canadian Coast Guard; Environment and Climate Change Canada; Fisheries and Oceans Canada; Natural Resources Canada; Transport Canada

CANADA'S STARTING POINT

- ♦ To measure **overall water quality and quantity in Canada**, we track indicators that summarize the ability of select rivers across Canada to support aquatic life, and that summarize data from water quantity monitoring stations across Canada. The indicators show that national freshwater quality remained relatively stable between 2003–2005 and 2010–2012 and is considered fair to good, while water quantity was generally normal between 2002 and 2011.
- ♦ To measure progress on **reducing nutrient pollution in lakes and rivers**, we track phosphorus levels and reductions in phosphorus inputs. Phosphorus levels are still too high in many lakes and rivers, but efforts to reduce nutrient pollution are having an effect. As of March 2015, projects funded by Environment and Climate Change Canada were preventing:
 - About 4040 kilograms of phosphorus from entering the Lake Simcoe watershed;
 - About 124 kilograms of phosphorus from reaching South-eastern Georgian Bay and its tributaries; and
 - About 14 800 kilograms of phosphorus from entering Lake Winnipeg and its tributaries.
- ♦ To measure progress on **restoring lake and river ecosystems**, we track the number of Canadian Great Lakes AOCs considered fully restored and the number of beneficial uses considered “impaired”. While no Area of Concern has been delisted since 2010, the number of beneficial uses considered “impaired” has decreased by 41% since the areas were initially assessed.
- ♦ To measure the extent to which **risks associated with industrial effluent are being reduced**, we track compliance with the *Metal Mining Effluent Regulations* and the *Pulp and Paper Effluent Regulations*. The rate of compliance with these regulations is very high—over 95%.

Key priorities

To support healthy lake and river ecosystems, we are renewing our commitment to protect the Great Lakes, the St. Lawrence River Basin, and the Lake Winnipeg Basin. For example, Budget 2016 provided \$3.1 million in 2016–2017 to improve water quality and ecosystem health by reducing phosphorus and resulting algal blooms in Lake Erie. This will support shared Canada-US phosphorus reduction targets for Lake Erie and also help inform action on other Great Lakes.

We are also providing close to \$140 million in funding to clean up Randle Reef, an AOC identified in the Canada-US Great Lakes Water Quality Agreement. Thanks to an innovative public-private partnership and the combined efforts of the federal, provincial and municipal governments, the cleanup will improve water quality and reduce contamination in Hamilton Harbour.

To protect and manage water, we need accurate data and information. Accordingly, we will increase funding for freshwater scientific research and monitoring activities and provide support to the International Institute for Sustainable Development Experimental Lakes Area. Increased science and research will help us better understand lake and river ecosystems and the effects of water pollution.

Budget 2016 also provided up to \$19.5 million over five years for the International Joint Commission to study flooding, variable water levels and water quality in four important water basins that straddle the Canada-US border: the Upper Great Lakes, Lake Champlain and the Richelieu River, Lake of the Woods and the Souris River.

Work under this goal will support progress toward the 2020 Biodiversity Goals and Targets for Canada and the global conservation objectives of the United Nations Convention on Biological Diversity—in particular, by helping to reduce pollution levels, including pollution from excess nutrients.

CONTRIBUTING ACTIONS

To work with partners to protect and manage Canada's lakes and rivers, we will:

Work with partners on water quality and ecosystem health

To improve water quality and restore ecosystems, collaborate with other governments, Indigenous Peoples and regional stakeholders to reduce phosphorus in Lake Winnipeg and in the Great Lakes through mechanisms such as:

- ♦ The Canada-Manitoba Memorandum of Understanding, Respecting Lake Winnipeg and the Lake Winnipeg Basin;
- ♦ The Canada-US Great Lakes Water Quality Agreement; and
- ♦ The Canada-Ontario Agreement.

Lead and coordinate the implementation of the St. Lawrence Action Plan 2011–2026, including reporting on the results for approximately 50 joint projects between the Governments of Canada and Quebec.

Work with partners to complete the implementation of Remedial Action Plans to clean up and restore beneficial uses in AOCs. Priority areas for de-listing five AOCs—Nipigon Bay, Peninsula Harbour, Niagara River, Bay of Quinte, and St. Lawrence River (Cornwall)—will be completed by December 2019.

Provide in-kind support and funding for projects

Support projects to improve water quality and help restore ecosystems in Lake Simcoe and South-eastern Georgian Bay, the Great Lakes, the St. Lawrence River, and the Lake Winnipeg Basin. Implementation of priority projects will focus on:

- ♦ Reducing phosphorus inputs;
- ♦ Conserving aquatic habitat and species; and
- ♦ Enhancing research and monitoring capacity essential to the restoration of the watersheds.

Better understand lake and river ecosystems

Conduct scientific research and analysis to better understand lake and river ecosystems, monitor their health, and provide information to support stakeholder decision making and help Canadians monitor the state of lakes and rivers. For example, reports will be released on:

- ♦ The State of the Great Lakes environmental indicators (in 2017 and every three years thereafter);
- ♦ Lake-wide Action and Management Plans (Lake Huron in 2016, Lake Ontario in 2017, and Lake Erie in 2018);
- ♦ Groundwater science;
- ♦ The state of the St. Lawrence River (in 2019); and
- ♦ Lake Winnipeg (in 2018).

Use legislation and regulations to protect lake and river ecosystems

Implement legislation and regulations that protect lake and river ecosystems from pollution and other threats. For example:

- ♦ Implement regulations under the *Fisheries Act* to reduce risks from wastewater and industrial effluent;
- ♦ Implement and enforce vessel-related invasive species provisions in the Canada-US Great Lakes Water Quality Agreement; and
- ♦ Monitor compliance with invasive species provisions in Canadian legislation such as the *Canada Shipping Act, 2001*.

CONNECTIONS WITH OTHER FSDS AREAS

Protecting lakes and rivers supports other FSDS targets related to ensuring clean drinking water and building safe and healthy communities; it is enabled by targets related to climate action and sustainable food:

- ♦ Lakes and rivers are significant sources of [drinking water](#) for Canadians
- ♦ [Climate change](#) is affecting the health of lakes and rivers and putting pressure on Canada's water resources
- ♦ [Sustainable agricultural practices](#) can enhance the quality of water running off or draining from agricultural land
- ♦ Managing risks from [harmful substances](#) helps prevent them from polluting lakes and rivers
- ♦ [Investing in wastewater infrastructure](#) helps prevent water pollution from undertreated wastewater

CANADA IN THE WORLD

Protecting lakes and rivers supports the 2030 Agenda and its global sustainable development goals—in particular SDG 6, Clean Water and Sanitation. It also supports specific SDG targets, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

OUR PARTNERS

Some lakes and rivers, such as Lake Winnipeg and the Great Lakes, have basins that cross provincial and national boundaries. As a result, we work with a broad range of partners to solve the challenges facing these ecosystems.

Provinces and territories share jurisdiction over lakes and rivers with the federal government, and are working with us toward shared objectives for the Great Lakes, the St. Lawrence River, Lake Simcoe, and Lake Winnipeg. Indigenous Peoples, communities and environmental non-governmental organizations also play important roles.

Meanwhile, US federal and state governments work with Canada to address transboundary water issues through the International Joint Commission and its boards, committees and task forces. Canada and the US also work together through the Great Lakes Fishery Commission to improve and perpetuate the Great Lakes fishery.

PARTNERS TAKING ACTION - IISD EXPERIMENTAL LAKES AREA

The [Experimental Lakes Area](#) is an exceptional natural laboratory comprised of 58 small lakes and their watersheds set aside for scientific research. By manipulating small lakes representative of larger lakes, scientists are able to examine how all aspects of the ecosystem—from the atmosphere to fish populations—respond, and extrapolate the results to better understand global water and environmental issues.

The International Institute for Sustainable Development, which operates the Experimental Lakes Area, is currently conducting a variety of influential experiments exploring issues including mercury deposition from coal-fired power plants, water flow reduction in the Canadian Boreal shield due to climate change, and nutrient contributions to harmful algal blooms.



TAKE ACTION!

- Bring unused and expired medications to your local pharmacist for proper disposal
- Recycle and compost waste; never litter
- Consider environmental performance when choosing products such as dish soap
- Conserve water at home and at work—for example, by:
 - Fixing drips and leaks
 - Installing low-flow shower heads and toilets
 - Turning off the water when brushing teeth and shaving
- Help reduce the spread of aquatic invasive species—for example, by thoroughly washing your boat when moving it between water bodies





SUSTAINABLY MANAGED LANDS AND FORESTS



LONG-TERM GOAL

Lands and forests support biodiversity and provide a variety of ecosystem services for generations to come

WHY IS THIS ISSUE IMPORTANT?

Canada's natural spaces, including forests, wetlands, peatlands, prairies and tundra, as well as agricultural lands, provide habitat that wildlife populations need to thrive. They also provide ecosystem services that are essential for our well-being, such as filtering our air and water and storing carbon dioxide, an important greenhouse gas. Forests are fundamental to the cultural and spiritual values of Indigenous Peoples ([Canadian Council of Forest Ministers, 2016](#)), while many Canadians have a profound attachment to wilderness.

Lands and forests also contribute to Canada's economy. For example, directly and indirectly, the forest sector employed about 290,000 Canadians and added \$29 billion to Canada's GDP in 2014.

While Canada enjoys large tracts of forest land and other wilderness areas, we cannot take them for granted. Protecting and sustainably using lands and forests is necessary to ensure they provide benefits for the long term. For example, Canada's world-class national park system includes 46 national parks that protect over 328,400 square kilometres of forest land, including temperate rainforest, to pass on unimpaired for the use, benefit and enjoyment of future generations.

Protecting forested areas also helps to protect and sustain lands of cultural importance to Indigenous Peoples and maintain traditional uses of the land and resources.

MEDIUM-TERM TARGETS

- ◆ By 2020, at least 17% of terrestrial areas and inland water are conserved through networks of protected areas and other effective area-based conservation measures
- ◆ By 2019, the condition of 90% of ecological integrity indicators in national parks is maintained or improved
- ◆ Between now and 2020, maintain Canada's annual timber harvest at or below sustainable wood supply levels

SHORT-TERM MILESTONES

- ◆ By 2018, develop and begin implementing, in collaboration with provinces, territories, Indigenous Peoples and stakeholders, a roadmap towards conserving at least 17% of Canada's terrestrial area
- ◆ By 2017, establish one new National Park: Thaidene Nēné National Park Reserve in collaboration with the Government of the Northwest Territories and Indigenous Peoples in order to represent the Northwestern Boreal Uplands natural region
- ◆ In 2016–2019, maintain annual harvest of timber at sustainable rates

RESPONSIBLE MINISTERS/KEY DEPARTMENTS AND AGENCIES

Minister of Environment and Climate Change; Minister of Natural Resources/Canadian Food Inspection Agency; Canada Economic Development for Quebec Regions; Department of Finance Canada; Environment and Climate Change Canada; Innovation, Science and Economic Development Canada; Natural Resources Canada; Parks Canada; Statistics Canada; Sustainable Development Technology Canada

OUR ACTION PLAN

Key priorities

We protect and conserve natural spaces by establishing and managing **protected areas** such as national parks, national wildlife areas and migratory bird sanctuaries, and by administering programs that fund habitat conservation on private land and encourage landowners to donate ecologically sensitive land for conservation.

To support conservation of natural spaces, Budget 2016 provided \$42.4 million to continue work on developing new national parks and national marine conservation areas, including Thaidene Nëné National Park Reserve in Northwest Territories.

We have committed to significantly increase carbon sequestration in lands and forests. We have also committed to work with partners to promote innovation and clean technology in the forest sector and increase economic benefits for Canadians, including Indigenous Peoples.

Work under this goal will support progress toward the 2020 Biodiversity Goals and Targets for Canada and the global conservation objectives of the United Nations Convention on Biological Diversity—in particular, by supporting our commitment to conserve at least 17% of Canada's terrestrial areas and inland water by 2020, and by helping to ensure continued progress on sustainable forest management

CANADA'S STARTING POINT

- ♦ To measure our success in conserving **lands and inland waters**, we track area conserved as a proportion of total land and freshwater. As of 2015, 10.6% of Canada's terrestrial area was protected.
- ♦ Tracking the **ecological integrity of our national parks** helps us understand how effectively we are managing these areas. We assess ecological integrity by regularly monitoring park ecosystems such as forests, grasslands, freshwater and wetlands. As of March 2016, the condition of 90% of our indicators was maintained or improved from 2011.

To measure our progress on **managing our forests sustainably**, we track how they are changing over time. In 2015, Canada had 348 million hectares of forest land—the third-largest forest area in the world—and less than 0.02% of that land is deforested annually. We also track the amount of timber harvested annually relative to the wood supply (the maximum volume that can be harvested from an area over a specified period of time while meeting environmental, economic and social objectives). In 2014, 148 million cubic metres of timber was harvested, while the wood supply was 227 million cubic metres.

CONTRIBUTING ACTIONS

To work with partners to manage and use lands and forests sustainably, we will:

Better understand lands and forests

Conduct scientific research to better understand protected areas and managed forests and support decision making, including forest management plans. This will include:

- ♦ Refining our Carbon Budget Model;
- ♦ Assessing the value of ecosystem services and natural capital; and

- ♦ Developing statistical infrastructure on land cover and land use to monitor changes in the extent of key ecosystem types, including those disturbed by fires, pests and invasive alien species.

Use legislation and regulations to manage the spread of invasive alien species

Manage the spread and introduction of invasive alien species by promoting compliance and carrying out enforcement activities. Design, develop and implement pre-, at- and post-border initiatives to limit the introduction and spread of invasive alien plants and pests to Canada's environmental resources, such as forests and agricultural lands.

Build capacity and provide support

Provide in-kind support and funding to increase Indigenous communities' participation in Canada's forest sector, administer the Ecological Gifts Program, implement the Natural Areas Conservation Program, and implement the National Wetland Conservation Fund.

Support initiatives to combat the spruce budworm in Atlantic and Quebec forests to reduce its negative impacts and create opportunities for economic development in the region.

Conserve natural spaces

Establish new protected areas in Northwest Territories, Nunavut and unrepresented regions. Manage national parks, national wildlife areas and migratory bird sanctuaries to contribute to the conservation of biodiversity.

Work with domestic and international partners

Provide opportunities for collaboration with stakeholders, Indigenous communities and organizations, and work with domestic and international partners to implement joint initiatives. Manage risks to natural resource sectors, infrastructure and human health by providing scientific knowledge through the National Forest Pest Program.

CONNECTIONS WITH OTHER FSDS AREAS

Conserving lands and managing forests sustainably supports FSDS targets related to climate action, protecting plants and animals, and helping Canadians connect with nature:

- ♦ Forests and other ecosystems act as a carbon sink, helping to [mitigate climate change](#)
- ♦ Lands and forests provide habitat that [species at risk](#) need to recover and thrive
- ♦ National parks and other protected areas provide opportunities for Canadians to [connect with nature](#) and help build sustainable communities.
- ♦ [Making energy exploration more sustainable](#) includes reducing its impact on the land, helping to protect natural spaces and biodiversity
- ♦ Investments in [clean technology and innovation](#) directly contribute to sustainable practices in the forest sector and increase economic benefits

CANADA IN THE WORLD

Conserving lands and managing forests sustainably supports the 2030 Agenda and its global sustainable development goals—in particular SDG 8, Decent Work and Economic Growth; and SDG 15, Life on Land. It also supports specific SDG targets, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

PARTNERS TAKING ACTION – CANADIAN PARKS AND WILDERNESS SOCIETY

[Canadian Parks and Wilderness Society](#) has worked for more than 53 years in the field of conservation, drawing attention to the value of protected areas for biodiversity, clean air and water, and climate change. CPAWS is working with governments, First Nations, and industrial actors to protect Boreal Woodland Caribou habitat which would protect large areas of stored carbon, allow caribou and other boreal species to adapt to climate change, protect sources of clean water, maintain wetlands and forests that purify the air, and contribute to reaching international protected area targets.

OUR PARTNERS

Provinces, territories, municipalities, Indigenous Peoples, non-governmental organizations, the private sector and individual landowners all play a role in conserving natural spaces. For example:

- ♦ Provinces and territories establish and manage provincial and territorial parks, and support conservation by providing information, assistance and incentives;
- ♦ Indigenous Peoples work with federal, provincial and territorial governments to establish, manage and present protected areas; and
- ♦ Non-governmental organizations help landowners and businesses implement conservation on private lands through conservation easements, covenants and other measures.

As the order of government responsible for natural resources management, provinces and territories develop and enforce legislation, set standards and implement programs to ensure their forest resources are managed sustainably. Indigenous Peoples also control and manage a growing portion of Canada's forest land.

Canada leads the world in forest area certified by third parties, which provides further assurance that a company is operating legally, sustainably, and in compliance with globally recognized standards. Certification complements Canada's already comprehensive forest management regulation.

TAKE ACTION!

- Visit a national park or other protected area
- Participate in protected area interpretive programs and cultural experiences presented by Indigenous Peoples
- Consider donating land or a partial interest or right in land through the [Ecological Gifts Program](#)
- Participate in citizen science
- [Volunteer](#) with Parks Canada
- Recycle and compost waste; never litter
- Consider third-party forest certification in your purchasing decisions
- Consider contacting the [Canadian Biosphere Reserves Association](#) to explore the potential to designate an area near you as a [UNESCO Biosphere Reserve](#)



HEALTHY WILDLIFE POPULATIONS



LONG-TERM GOAL

All species have healthy and viable populations

WHY IS THIS ISSUE IMPORTANT?

Canada's plants and animals, together with the environments where they live, make up ecosystems that benefit Canadians through valuable services such as providing food and medicines, controlling floods, and pollinating crops. Maintaining biodiversity—the variety of genes, species and ecosystems and the ecological processes that allow them to evolve and adapt—helps ensure that ecosystems can continue to function and provide the services that we depend on for our well-being.

Healthy wildlife populations and habitat are important parts of biodiversity. Unfortunately, some species in Canada have experienced population declines and are now at risk of becoming extinct. Species can become threatened as a result of habitat loss or deterioration from human activities—for example, urban development, invasive alien species, pollution and climate change. Climate change can also affect wildlife health and contribute to the spread of wildlife diseases.

MEDIUM-TERM TARGETS

- ♦ By 2020, species that are secure remain secure, and populations of species at risk listed under federal law exhibit trends that are consistent with recovery strategies and management plans
- ♦ By 2025, 59% of managed migratory bird species have population sizes within an acceptable range

SHORT-TERM MILESTONES

- ♦ Species at risk exhibit stabilizing or improving trends since their listing
- ♦ Migratory bird species with population sizes not within an acceptable range exhibit trends toward acceptable limits
- ♦ By 2018, eliminate the backlog of species requiring recovery strategies or management plans under the *Species at Risk Act*, and post all strategies and plans to the Species at Risk public registry

- ♦ By 2018, eligible species at risk have been considered for listing

RESPONSIBLE MINISTER/KEY DEPARTMENTS AND AGENCIES

Minister of Environment and Climate Change/Canada Border Services Agency; Canadian Food Inspection Agency; Environment and Climate Change Canada; Fisheries and Oceans Canada; National Defence; Parks Canada

CANADA'S STARTING POINT

- ♦ To measure our progress in **conserving wildlife species**, we track the percentage assessed as secure or at-risk; the success of efforts to help them recover; and their risk of disappearing from Canada. Among wild species assessed in 2010, 77% were ranked “secure”. In addition, as of May 2015:
 - 688 wildlife species had been assessed as endangered, threatened or of special concern; of the 436 species that had been assessed more than once 66% showed no change between the two most recent assessments, 14% were in a lower risk category and 19% were in a higher risk category.
 - Of 112 species at risk with recovery strategies or management plans in place, and whose population-oriented goals had been reassessed, 38% showed population trends consistent with the goals of the recovery strategies.
- ♦ To assess our **implementation of the *Species at Risk Act***, we track the percentage of listed wildlife species with a recovery strategy or management plan posted on the Species at Risk public registry within legislative timeframes. Environment and Climate Change Canada is working through a backlog of 192 species requiring recovery strategies or management plans; currently, 72 recovery strategies or management plans remain to be posted.

OUR ACTION PLAN



Key priorities

Implementing the *Species at Risk Act* is one of our main strategies for protecting wildlife species at risk. To ensure it is effective, we are working actively with provinces and territories to complete in a more timely way the robust species-at-risk recovery strategies that the Act requires.

Work under this goal will support progress toward the 2020 Biodiversity Goals and Targets for Canada and the global conservation objectives of the United Nations Convention on Biological Diversity—in particular, by ensuring that needed recovery strategies and management plans are in place, and by helping to prevent impacts from invasive alien species.

- ♦ To help us understand the state of **migratory birds in Canada**, we track the percentage of these birds whose populations fall within an acceptable range—neither too low nor too high. In 2013, 57% of managed migratory bird species regularly found in Canada had acceptable populations.

CONTRIBUTING ACTIONS

To protect and conserve wildlife in Canada, we will:

Use legislation and regulations to protect species at risk and migratory birds

Implement legislation and regulations to protect species—for example, by:

- ♦ Developing recovery strategies and action plans for species at risk under the *Species at Risk Act*;
- ♦ Protecting heritage places with three or more species at risk by March 2018 and supporting mitigation of activities likely to impact species at risk;
- ♦ Promoting compliance with the *Migratory Birds Convention Act, 1994*; and
- ♦ Amending the *Migratory Birds Regulations*.

Use legislation and regulations to control invasive alien species

Develop and implement a risk analysis framework and a pathways approach to regulating invasive alien species in Canada. Prevent the introduction and rapid dispersal of invasive species and disease into Canada via land, air and marine ports of entry.

Work with partners to protect species and their habitats

Work with other levels of governments and other partners to safeguard species at risk and their habitats, focusing on integrated action on landscapes that are a priority due to their biodiversity value.

Work with partners to further on-the-ground conservation of species at risk through targeted stewardship actions, and to coordinate the federal government's response to the 2004 Invasive Alien Species Strategy for Canada.

Build capacity and promote education

Build partners' capacity to protect, conserve and restore species and their habitat—for example:

- ♦ The Habitat Stewardship Program engages Canadians in conservation actions to benefit wildlife; and
- ♦ The Aboriginal Fund for Species at Risk supports Indigenous Peoples' participation in conservation.

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.

CONNECTIONS WITH OTHER FSDS AREAS

Protecting Canada's wild species is closely linked to FSDS targets related to coasts and oceans, lands and forests, sustainable food, clean energy, and innovation:

- ♦ [Canada's lands and forests](#), as well as [marine and coastal areas](#), provide habitat that species at risk need to recover and thrive
- ♦ [Sustainable agricultural practices](#) can help make farmland more hospitable to wildlife
- ♦ [Making energy exploration more sustainable](#) includes reducing its impact on the land, helping to protect natural spaces and biodiversity
- ♦ [Connecting with nature](#) can inspire Canadians to help conserve ecosystems and species

CANADA IN THE WORLD

Protecting Canada's wild species supports the 2030 Agenda and its global sustainable development goals—in particular SDG 15, Life on Land. It also supports a specific SDG target, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

PARTNERS TAKING ACTION - CANADIAN BOREAL FOREST AGREEMENT

The [Canadian Boreal Forest Agreement](#) has been developing and implementing change on key issues relating to forestry, species at risk, and protected areas across the boreal forest in collaboration with Provincial, Indigenous governments and others. They see the economy and the environment as fundamentally intertwined and are committed to base strategies and outcomes on the best available science and information, including Indigenous Traditional Knowledge.

OUR PARTNERS

All Canadian jurisdictions share responsibility for conserving wildlife species. Provinces and territories protect species at risk on provincial, territorial and private land. Many have also put in place biodiversity strategies and policies, as well as other initiatives that support biodiversity and species conservation, such as:

- ♦ Wetland conservation policies;
- ♦ Protected area strategies; and
- ♦ Initiatives to prevent, eradicate and control invasive alien species.

Indigenous Peoples play a key role in conserving wildlife species and their habitat. For example:

- ♦ The National Aboriginal Council on Species at Risk advises the Minister of Environment and Climate Change on administering the *Species at Risk Act*;
- ♦ The Aboriginal Traditional Knowledge Subcommittee on Species at Risk facilitates access to the best available Indigenous Traditional Knowledge and the integration of that knowledge into the Committee on the Status of Endangered Wildlife in Canada status assessment process; and
- ♦ Indigenous Guardian programs engage in and build capacity for on-the-ground conservation in regions across Canada.

Action to protect wildlife species and their habitats can also cross international boundaries. For example, to protect migratory birds, Canada partners with the US and Mexico to implement the North American Waterfowl Management Plan and the North American Bird Conservation Initiative.

TAKE ACTION!

- Learn about wildlife and biodiversity by, for example, visiting a national wildlife area, migratory bird sanctuary, or national, provincial or territorial park
- Take action to protect species at risk and their habitat, and where needed seek support through programs such as the [Habitat Stewardship Program](#) or [Aboriginal Fund for Species at Risk](#)
- Abide by laws and regulations that are in place to protect wildlife, such as the *Species at Risk Act* and the *Migratory Birds Convention Act, 1994*





CLEAN DRINKING WATER



LONG-TERM GOAL

All Canadians have access to safe drinking water and, in particular, the significant challenges Indigenous communities face are addressed

WHY IS THIS ISSUE IMPORTANT?

Clean drinking water is essential for health, while polluted water can cause serious illness due to bacteria, viruses and other contaminants. Most drinking water advisories are issued as a precaution; however, they can indicate that water could be contaminated and needs to be boiled before use, is unsafe for drinking, or is unsafe to use at all.

While drinking water in Canada is among the safest in the world, access to safe drinking water remains a challenge in on-reserve First Nation communities. That is not acceptable. Ensuring that all Canadians—including Indigenous Peoples—have clean water to drink is a federal government priority.

MEDIUM-TERM TARGET

By March 31, 2019, 60% and by March 31, 2021 100% of the long-term drinking water advisories affecting First Nation drinking water systems financially supported by Indigenous and Northern Affairs Canada are to be resolved

SHORT-TERM MILESTONES

- ♦ Of the 77 drinking water advisories affecting First Nation drinking water systems financially supported by Indigenous and Northern Affairs Canada as of April 2016, 30 (40%) are to be resolved by March 31, 2018
- ♦ Up to five national drinking water quality guidelines/guidance documents will be approved by provinces and territories by March 31, 2018

RESPONSIBLE MINISTER/KEY DEPARTMENTS AND AGENCIES

Minister of Indigenous and Northern Affairs/ Health Canada; Indigenous and Northern Affairs Canada; Public Health Agency of Canada; Statistics Canada

CANADA'S STARTING POINT

- ♦ To measure the extent to which **drinking water advisories** reflect drinking water contamination (as opposed to precautionary action in response to problems with drinking water equipment or processes), we track boil water advisories and their causes. In 2015, based on a subset of Canadian jurisdictions, 78% of advisories were issued as a precaution.
- ♦ To understand the **challenges Indigenous communities face** in accessing safe drinking water, we track the number of long-term drinking water advisories affecting First Nations drinking water systems financially supported by Indigenous and Northern Affairs Canada—77 as of April, 2016.

OUR ACTION PLAN

Key priorities

We are committed to working with First Nations to ensure safe drinking water in on-reserve communities. Accordingly, Budget 2016 provided:

- \$2.24 billion over five years to First Nation communities to improve on-reserve water and wastewater infrastructure and waste management;
- \$1.8 billion over five years to address health and safety needs, ensure proper facility operation and maintenance, and end long-term drinking water advisories on reserves; and
- \$141.7 million over five years to improve monitoring and testing of on-reserve community drinking water.



CONTRIBUTING ACTIONS

To ensure all Canadians have access to safe drinking water, we will:

Provide support for water and wastewater services

Through funding and in-kind support, enable delivery of drinking water and wastewater services in First Nations communities, beginning with the highest-risk water and wastewater systems. Funding will also ensure ongoing on-reserve access to a trained Community-Based Drinking Water Quality Monitor or an Environmental Health Officer. This will enable us to:

- ♦ Increase the percentage of on-reserve drinking water systems that have low risk ratings to 65% by March 31, 2019 from a baseline of 27% in 2011; and

- ♦ Increase the percentage of on-reserve wastewater systems that have low risk ratings to 65% by March 31, 2019 from a baseline of 35% in 2011.

Work with partners on drinking water quality

Support all First Nations communities in the ongoing monitoring of on-reserve drinking water quality. This includes working with provinces and territories to develop and update national health-based drinking water quality guidelines/guidance documents.

Use regulations to ensure clean drinking water

Work with provinces and territories to develop national drinking water quality guidelines which are used by provinces and territories as a basis to establish their own requirements for safe drinking water.

PARTNERS TAKING ACTION - FLOW

The Forum for Leadership on Water (FLOW) is an independent group of policy experts from across Canada that encourages and supports government action to protect our fresh water. FLOW members have conducted numerous policy analyses and contributed to the resolution of many water-related issues over the past decade. [FLOW's work](#) has included looking at the impacts of climate change on phosphorus loads in Canadian lakes and rivers, governance of drinking water and wastewater treatment on Indigenous lands, and job creation related to government spending on sustainable water infrastructure.

Federally, potable water inspections and audits are conducted on international and interprovincial airplanes, trains, cruise ships, ferries and buses to protect the health and safety of the travelling public, ensuring that critical violations are mitigated in a timely manner.

Conduct scientific research and analysis to support water resource management

Provide information and statistics on water use, including municipal water treatment.

CONNECTIONS WITH OTHER FSDS AREAS

Ensuring safe drinking water for all Canadians supports FSDS targets related to healthy and sustainable communities and is enabled by green infrastructure and healthy lakes and rivers:

- ♦ [Investing in water infrastructure](#) is essential for ensuring clean and safe drinking water, while investing in wastewater infrastructure helps protect sources of drinking water from pollution
- ♦ [Lakes and rivers](#) are important sources of drinking water for Canadians, while water stewardship can help protect drinking water supplies from contamination
- ♦ [Sustainable agricultural practices](#) can enhance the quality of water running off or draining from agricultural land, helping to protect sources of drinking water

CANADA IN THE WORLD

Ensuring safe drinking water for all Canadians supports the 2030 Agenda and its global sustainable development goals—in particular SDG 3, Good Health and Well-being; and SDG 6, Clean Water and Sanitation. It also supports specific SDG targets and other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

OUR PARTNERS

First Nations are essential partners in providing clean drinking water in on-reserve communities. They build, own, operate and maintain the water systems in their communities. They also sample and test drinking water and issue drinking water advisories as needed. Municipalities operate drinking water systems in other areas.

Provinces and territories work closely with us to establish and update the Guidelines for Canadian Drinking Water Quality—which form the foundation for drinking water quality standards across Canada—and implement them in accordance with their priorities for protecting public health.



SUSTAINABLE FOOD



LONG-TERM GOAL

Innovation and ingenuity contribute to a world-leading agricultural sector and food economy for the benefit of all Canadians

WHY IS THIS ISSUE IMPORTANT?

Canada's food system, including agriculture, aquaculture and fisheries, provides safe and healthy food for Canadians and helps ensure long-term food security. It also contributes to our economy. For example, in 2014 the agriculture, agri-food and agri-based products sector generated over \$100 billion, or close to 7% of Canada's GDP, and employed 2.1 million Canadians.

Conserving coasts and oceans and protecting freshwater and soil quality will help ensure our food systems continue to feed Canadians and create jobs over the long term. New digital technologies will play a key role, enabling producers to provide more and healthier food with less environmental impact.

To ensure safe, sustainable and secure food, we need to protect food systems from threats to animal health and plant resources, such as diseases, pests and invasive alien species. We also need to ensure that all Canadians—including those in isolated northern communities—have access to nutritious food. For Indigenous Peoples, this includes traditional or country food, as well as store-bought food.

Food waste is another important issue for Canada's food system. In 2014, the value of wasted food in Canada was \$31 billion dollars—more than the combined GDP of the world's poorest 29 countries and a 15% increase from four years earlier ([VCM International, 2014](#)). In addition to its economic costs, food waste contributes to climate change: when food decomposes it emits methane, a powerful greenhouse gas.

PARTNERS TAKING ACTION - AGRIMUM

Agrium has worked with stakeholders to develop a protocol enabling growers to reduce emissions of nitrous oxide—a greenhouse gas—associated with nitrogen fertilizer applications on the farm. Researchers estimate that implementation of the protocol could reduce field emissions of nitrous oxide by 15 to 25% without reducing yields.

MEDIUM-TERM TARGETS

- ◆ Ensure safe and accessible food supply by mitigating risks to animal and plant resources from pests, diseases and other health hazards and prevent risks to health of Canadians
- ◆ By 2030, agricultural working landscapes provide a stable or improved level of biodiversity and efficient management towards water and soil quality for food production
- ◆ By 2020, all aquaculture in Canada is managed under a science-based regime that promotes the sustainable use of aquatic resources (marine and freshwater) in ways that conserve biodiversity

SHORT-TERM MILESTONES

- ◆ By 2019, develop a food policy that includes the promotion of healthy living and safe food
- ◆ In 2016–2019, continue delivering programs to improve soil and water quality and increase habitat capacity in agricultural working landscapes. Agriculture and Agri-Food Canada will be undergoing a funding renewal in Year Three of the 2016–2019 FSDS, which could have implications for actions contributing to this milestone.
- ◆ Maintain high compliance rates with *Fisheries Act* regulations related to aquaculture
- ◆ In 2016, expand the number of eligible isolated northern communities that have access to healthy foods at a subsidized rate as part of the Nutrition North Canada

RESPONSIBLE MINISTERS/KEY DEPARTMENTS AND AGENCIES

Minister of Agriculture and Agri-Food; Minister of Health; Minister of Fisheries, Oceans and the Canadian Coast Guard/Agriculture and Agri-Food Canada; Canada Border Services Agency; Canadian Food Inspection Agency; Fisheries and Oceans Canada; Indigenous and Northern Affairs Canada; Sustainable Development Technology Canada

OUR ACTION PLAN

Key priorities

We have committed to develop a food policy that includes the promotion of healthy living and safe food.

We will continue to support sustainable agriculture, fisheries and aquaculture by investing in science and research. For example, Budget 2016 provided:

- \$30 million over six years to support advanced research in agricultural genomics; and
- \$197.1 million over five years for freshwater and ocean science, which will help ensure wild fisheries and aquaculture are sustainable.

As part of our commitment to work with the US and Mexico under the North American Climate, Clean Energy and Environment Partnership, we will develop and implement strategies to reduce methane emissions from agriculture and waste management—including food waste—among other key sectors.

To help northern Canadians access healthy food, we have committed to update and expand Nutrition North Canada, a program aimed at alleviating high food costs in the North. Budget 2016 provided \$64.5 million over five years, and \$13.8 million ongoing, to expand the program to support all northern isolated communities.

We have also committed to rejoin the United Nations Convention to Combat Desertification at the earliest opportunity. Key areas of focus for the convention are reversing and preventing desertification and land degradation and mitigating the effects of drought—important issues for agriculture.

Finally, we are committed to helping make Canada's resource sectors, including agriculture, aquaculture and fisheries, world leaders in the use and development of clean and sustainable technology and processes.

Work under this goal will support progress toward the 2020 Biodiversity Goals and Targets for Canada and the global conservation objectives of the United Nations Convention on Biological Diversity—in particular, by improving the level of biodiversity and wildlife habitat capacity on agricultural lands, and maintaining or improving water and soil quality.

CANADA'S STARTING POINT

- ♦ To measure the extent to which **agriculture in Canada is managed sustainably**, we track many indicators which include water and soil quality. In 2011, the Soil Quality Agri-Environmental Performance Index results for Canada's farming regions were within the “good” range (77) and the Water Quality index was also rated as “good” (74). The historical baselines from 1981 for these metrics were in the “desired” range class for water quality (92) and the “good” range class for soil quality (64).
- ♦ To measure the extent to which **aquaculture in Canada is managed sustainably**, we track aquaculture operators' compliance with *Fisheries Act* regulations. Between 2011 and 2014, compliance was over 99%.

CONTRIBUTING ACTIONS

To ensure Canadians have safe, secure and sustainable food systems, we will:

Use legislation and regulations to ensure safe and secure food

Develop regulations, promote compliance and carry out enforcement activities to ensure safe and secure food reaches

Canadians. For example:

- ♦ Develop regulations under the *Fisheries Act* to advance aquaculture sustainability; and
- ♦ Implement public reporting on newly issued *Aquaculture Activities Regulations*.

Ensure a safe food supply by mitigating risks to the animal and plant resource base (including livestock, aquatic animals, crops and forests) through effective disease control, surveillance, and regulation of animal and plant products.

Increase knowledge of sustainable agriculture, fisheries and aquaculture

Conduct scientific research to increase knowledge of effects from agriculture and aquaculture on the environment. This research can assist in addressing agri-environmental challenges such as water quality and water use, developing resilience to a changing climate, and maintaining ecosystem health.

Conduct targeted regulatory research on fish pest and pathogen interactions, ecosystem management and interactions with wild populations as well as collaborative research to improve environmental decision-making and

sustainability of the aquaculture industry contributing to the production of seafood.

Promote innovation and sustainable practices

Build the capacity of Canada's agriculture, agri-food and agri-based products sector to promote innovation and encourage adoption of sustainable agricultural practices at farm and landscape levels by working with provinces and territories. For example, work to increase the number of beneficial management practices implemented to 17,600 by March 31, 2019, through cost-shared programming under the Growing Forward 2 framework (2013–2018).

Work with partners for sustainable food

Work with domestic and international partners to support a sustainable plant and animal resource base, take decisions based on sound scientific advice, and implement modern processes and systems to manage food safety. For example, in 2016–2017, continue to develop the Federal-Provincial-Territorial Strategic Emergency Management Framework, enabling the development of a National Plant and Animal Health Strategy.

Provide a food subsidy

Provide a subsidy for perishable, nutritious food so that Northerners living in isolated communities have increased access to affordable healthy food.

Work with partners to address invasive alien species

Work with international and domestic partners to prevent the introduction and limit the spread of invasive alien species and develop international standards and processes that reflect Canadian interests. For example, work with the US and other countries to ensure compliance with Canadian phytosanitary regulations and share information on best practices and compliance rates.

CONNECTIONS WITH OTHER FSDS AREAS

Ensuring sustainable food supports FSDS targets related to climate action, healthy ecosystems, clean water, and sustainable communities:

- ♦ Sustainable agricultural practices can increase [carbon sequestration](#) in soil, enhance the [quality of water](#) running off or draining from agricultural land, and provide a more hospitable environment for [wildlife](#)
- ♦ Sustainable fisheries, including aquaculture, contribute to healthy [freshwater](#) and [marine](#) ecosystems
- ♦ Access to safe and healthy food helps [communities](#) flourish
- ♦ [Investing in clean technology](#) helps sectors such as agriculture become more sustainable and competitive

CANADA IN THE WORLD

Ensuring sustainable food supports the 2030 Agenda and its global sustainable development goals—in particular SDG 2, Zero Hunger. It also supports specific SDG targets, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

OUR PARTNERS

Agriculture is a shared jurisdiction and provinces and territories have an important role to play in promoting a sustainable food system—for example, along with us, they deliver programming that encourages farm-level environmental stewardship.

Communities and non-governmental organizations are active in helping to build sustainable food systems in Canada. For example, cities such as Toronto and Vancouver have launched food strategies that include measures to increase access to affordable and healthy food. Non-governmental organizations also contribute—for example, by collecting surplus food and distributing it to those who need it.

Canada's fishers and agricultural producers are responding to environmental challenges by adopting innovative technologies and practices to produce food while reducing impacts on the climate, water, soil and biodiversity. For example, agricultural producers are using integrated pest management approaches to reduce reliance on chemical pesticides, and reducing tilling to keep carbon sequestered in soil.

TAKE ACTION!

- Use available resources to make educated decisions in choosing food
- Reduce food waste by buying only the food you need



CONNECTING CANADIANS WITH NATURE



LONG-TERM GOAL

Canadians are informed about the value of nature, experiencing nature first hand, and actively engaged in its stewardship

WHY IS THIS ISSUE IMPORTANT?

Connecting with nature benefits Canadians, their communities and the environment. Spending time in nature can improve physical and mental health and support children's development, while nature-based tourism provides economic benefits for Canada. Getting out and experiencing nature also inspires Canadians to help protect it.

Maintaining a healthy environment depends on the active engagement of all Canadians in its stewardship. Most Canadians already connect with nature by visiting parks and green spaces and by participating in nature-based activities such as hiking, horseback riding or gardening. Many also take action to protect the environment.

We can support Canadians by expanding opportunities to experience nature and get involved in conservation.

MEDIUM-TERM TARGET

By 2020, maintain or increase the number of Canadians that get out into nature—for example, by visiting parks and green spaces—and increase participation in biodiversity conservation activities relative to a 2010 baseline

SHORT-TERM MILESTONE

In 2017, increase visitation to federal protected areas such as selected national wildlife areas, national parks and national marine conservation areas

RESPONSIBLE MINISTER/KEY DEPARTMENTS AND AGENCIES

Minister of Environment and Climate Change/Environment and Climate Change Canada; Parks Canada

CANADA'S STARTING POINT

- ♦ To measure the extent to which **Canadians are getting out in nature**, we track the percentage of Canadians who visit nearby parks and public green spaces. As well, starting in 2016, we will track the number of visitors to federal protected areas such as national parks, national marine conservation areas and national wildlife areas. In 2013, 85% of Canadian households reported that they lived near a park or green space. Of those, 85% reported that they visited a park or green space close to their home at least once during the year.
- ♦ To measure the extent to which **Canadians are participating in conservation**, we track the percentage of Canadians who report that they take definite action to protect the environment. In 2013, 18% of Canadian households engaged in unpaid activities aimed at conservation or protecting the environment or wildlife.



OUR ACTION PLAN

Key priorities

National parks, national wildlife areas and other protected areas provide opportunities to discover and connect with nature. To expand these opportunities and remove barriers to accessing them, Budget 2016 provided:

- Up to \$83.3 million over five years to make admission free for all visitors to national parks, national marine conservation areas and national historic sites operated by Parks Canada in 2017, and to provide free admission for children under 18 on an ongoing basis starting in 2018; and
- \$16.6 million over five years to expand the Learn to Camp program, develop new programming to tell Canada's stories, and encourage Indigenous story-telling and eco-tourism opportunities.

Other priorities will include completing the land assembly for Rouge National Urban Park, Canada's first national urban park (located in the Greater Toronto Area), implementing infrastructure improvements to make it easier for Canadians to access and enjoy selected national wildlife areas, and working with communities near protected areas to stimulate economic development.

Work under this goal will support progress toward the 2020 Biodiversity Goals and Targets for Canada and the global conservation objectives of the United Nations Convention on Biological Diversity—in particular, by encouraging Canadians to get involved in biodiversity conservation activities.

CONTRIBUTING ACTIONS

To provide opportunities for Canadians to connect with nature, we will:

Build capacity for conservation activities

Engage Canadians in stewardship activities to protect and conserve natural spaces and wildlife species and their habitats by providing funding through:

- ♦ The Habitat Stewardship Program;
- ♦ The Aboriginal Fund for Species at Risk; and
- ♦ The National Wetland Conservation Fund.

Promote public participation

Provide opportunities for Canadians to connect with nature through learning, outreach and multi-media initiatives in their communities, and by providing free admission to Parks Canada places in 2017 in celebration of Canada's 150th birthday.

Work with partners, facilitate specific opportunities for youth, young adults and new Canadians to learn about, experience, and share their encounters with Parks Canada and its network of places.

Continue efforts to increase participation in nature-based programs and visitation to national wildlife areas.

Enhance programs and services for visitors

Foster a connection to nature and culture by expanding and enhancing programs and services that meet the needs of visitors to Parks Canada administered places and facilitate positive and memorable experiences. This includes:

- ♦ Offering unique camping experiences;
- ♦ Expanding the Learn to Camp Program;
- ♦ Developing programs for children and families; and
- ♦ Developing unique Canada 150 programming, including Indigenous Storytelling, to encourage Canadians to celebrate Canada's 150th birthday in Parks Canada administered places.

CONNECTIONS WITH OTHER FSDS AREAS

FSDS targets related to lands, forests, and biodiversity, as well as healthy and sustainable communities, help Canadians connect with nature:

- ♦ Connecting with nature can inspire Canadians to help [conserve ecosystems and species](#)
- ♦ [Protecting lands and forests](#), as well as [coasts and oceans](#), provides opportunities for Canadians to connect with nature and helps [build healthy and sustainable communities](#)

PARTNERS TAKING ACTION - CANADIAN BIOSPHERE RESERVES ASSOCIATION

The World Network of Biosphere Reserves stands at the heart of UNESCO's contribution to sustainable development and the shaping of an ambitious post-2015 sustainable development goals agenda. In Canada, the [18 Canadian Biosphere Reserves](#) have developed demonstration areas and interactive learning sites from coast to coast, and from urban to northern areas.

CANADA IN THE WORLD

Helping Canadians connect with nature supports the 2030 Agenda and its global sustainable development goals—in particular SDG 11, Sustainable Cities and Communities. It also supports a specific SDG target, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

OUR PARTNERS

Provinces, territories and municipalities, as well as Indigenous and non-governmental organizations, help get Canadians into nature and involved in conservation. For example:

- ◆ Provincial and territorial parks and protected areas provide opportunities for activities such as camping, hiking and viewing wildlife;
- ◆ Indigenous Peoples work with federal, provincial and territorial governments to establish, manage and present protected areas;
- ◆ Municipal parks and green spaces help urban Canadians benefit from time in nature; and
- ◆ Non-governmental organizations and educational institutions engage Canadians in citizen science initiatives to track changes in the environment and biodiversity.

TAKE ACTION!

- Get out in nature, especially with children—visit a national park, national wildlife area or other protected area and camp, cycle, hike, canoe, picnic with your family, participate in an Xplorers challenge
- Take advantage of Parks Canada experiences like Learn to Camp
- Participate in citizen science
- Volunteer with Parks Canada
- Take part in a BioBlitz—for example, with Parks Canada
- Download the Learn to Camp app and enjoy camping under the stars
- Spend time in a park or green space in your community
- Take steps to prevent the spread of invasive alien species when out in nature—for example, clean your boots and equipment, don't move firewood, and report any sightings to federal and provincial governments and invasive species councils



SAFE AND HEALTHY COMMUNITIES



LONG-TERM GOAL

All Canadians live in clean, sustainable communities that contribute to their health and well-being

WHY IS THIS ISSUE IMPORTANT?

We are committed to ensuring Canadians live in clean, safe environments that contribute to their health and well-being. Among other measures, this means improving air quality, protecting Canadians from harmful substances, and preventing environmental emergencies or mitigating their impacts if they do occur.

To be healthy, Canadians need to have clean air to breathe. However, as our cities grow, increasing transportation needs and industrial activity can put pressure on air quality.

Exposure to high concentrations of air pollution—especially on a daily basis—is dangerous, and the health problems it causes impose economic costs from lost productivity, increased need for medical care, decreased quality of life, and premature death. In 2008, the [Canadian Medical Association](#) estimated these costs at more than \$8 billion per year.

While chemicals are part of our everyday lives and provide many benefits, they can also be harmful if not properly managed. Managing these substances, as well as assessing and remediating contaminated sites, protects our health and the environment and benefits Canada's economy.

MEDIUM-TERM TARGETS

- ♦ Implement the Air Quality Management System to:
 - Decrease the three-year average of particulate matter, nitrogen oxides and volatile organic compound emissions from regulated and /or targeted sources to below the previous three-year average
 - Increase the percentage of the Canadian population living in areas where measured outdoor concentrations are below the Canadian Ambient Air Quality Standards (CAAQS) for fine particulate matter and ozone compared to the year 2000
- ♦ By 2020, address the 4,300 substances identified as priorities for action under the Chemicals Management Plan.

SHORT-TERM MILESTONES

- ♦ CAAQS for fine particulate matter and ozone are reviewed in 2017. Standards are developed for sulphur dioxide by 2017 and nitrogen dioxide by 2018
- ♦ Introduce risk management controls for 100% of substances assessed as posing a risk to the environment or human health within 42 months of being deemed harmful to human health or the environment
- ♦ By 2019–2020, remediate 599 of the highest priority sites under the Federal Contaminated Sites Action Plan
- ♦ By 2020, complete the re-evaluation of remaining legacy pesticides

RESPONSIBLE MINISTERS/KEY DEPARTMENTS AND AGENCIES

Minister of Environment and Climate Change; Minister of Health/Agriculture and Agri-Food Canada; Correctional Service Canada; Department of Finance Canada; Environment and Climate Change Canada; Fisheries and Oceans Canada; Health Canada; Indigenous and Northern Affairs Canada; Jacques Cartier and Champlain Bridges Incorporated; National Capital Commission; National Defence; National Research Council Canada; Natural Resources Canada; Parks Canada; Public Safety Canada; Public Services and Procurement Canada; Statistics Canada; Transport Canada

OUR ACTION PLAN

Key priorities

Budget 2016 provided \$345.3 million over five years to address air pollution in Canada—for example, to conduct research and monitoring; report to Canadians on air pollution and air quality; implement the Air Quality Management System jointly with provinces and territories; administer and enforce regulations and non-regulatory instruments to reduce air pollution; and maintain enforcement and policy capacity.

In June, 2016, the Minister of Environment and Climate Change published the *Multi-sector Air Pollutants Regulations*, establishing Canada's first-ever mandatory national air pollutant emissions standards for major industrial facilities. The regulations are expected to prevent:

- Hundreds of premature deaths;
- More than 350,000 days with asthma symptoms; and
- More than one million days of activity restricted by poor air quality.

The regulations will help to significantly reduce emissions that contribute to smog and acid rain, including 2,000 kilotonnes of nitrogen oxide emissions in the first 19 years—equivalent to taking all passenger cars and trucks currently in Canada off the road for about 12 years.

In addition, CAAQS for particulate matter and ozone—the main components of smog—have been put in place, with additional standards for sulphur dioxide and nitrogen dioxide being developed through a multi-stakeholder process.

We will continue to implement the Chemicals Management Plan, whose most recent phase was launched in May 2016. This will include addressing 1,550 remaining priority chemicals (of the original 4300) and assessing new substances as they are introduced into Canada. Budget 2016 also provided up to \$217 million to assess and remediate sites that have become contaminated with harmful chemical substances such as metals or petroleum products.

CANADA'S STARTING POINT

- ♦ To measure **changes in air quality**, we track emission levels of key air pollutants and monitor ambient air quality. Emissions of most key air pollutants decreased substantially between 1990 and 2014, including fine particulate matter (9% lower in 2014 than 1990), sulphur oxides (63% lower), nitrogen oxides (33%), volatile organic compounds (50%) and carbon monoxide (62%). Between 2012 and 2014, outdoor concentrations of fine particulate matter and ground-level ozone were generally below the 2015 CAAQS.
- ♦ To measure the **adverse effects of air pollution**, we track the proportion of deaths from heart-and lung-related diseases that can be attributed to outdoor air pollution. According to the Air Health Indicator, the proportion of deaths attributable to ozone increased between 1990 and 2010, while the proportion attributable to fine particulate matter showed neither an increasing nor decreasing trend between 2001 and 2010.
- ♦ To measure **environmental and health risks from harmful substances**, we track levels of key substances in Canadians' blood and urine, as well as in the environment. The 2012–2013 Canadian Health Measures Survey showed that Canadians had, on average, 0.34 µg/L of cadmium, 11 µg/L of lead and 0.81 µg/L mercury in their blood, and 1.1 µg/L of bisphenol A in their urine.
- ♦ On the environmental side, monitoring indicates that levels of PBDEs in fish and sediment are decreasing, and that PFOS levels in water and in fish tissue are under reference levels for water quality and fish health (though in some areas they exceed safe levels for wildlife eating those fish). Meanwhile, between 1990 and 2013, mercury, lead and cadmium emissions to air were reduced by 88%, 90% and 90%, respectively.

SUSTAINABLE INDIGENOUS COMMUNITIES

Indigenous and northern communities face many challenges, including managing the impacts of a changing climate, addressing the high and often fluctuating costs of energy, and promoting sustainable development that balances consideration of environmental, social and economic well-being.

Indigenous and northern communities in Canada are particularly susceptible to these challenges due to factors such as remoteness and inaccessibility, cold climate, aging and inefficient infrastructure, and reliance on diesel for electricity generation and space heating.

Actions across the 2016–2019 FSDS will help to support sustainable Indigenous communities. These include:

- Building resilience in the North and Indigenous communities;
- Providing funding to First Nation communities to improve water and wastewater infrastructure and waste management on reserve;
- Helping Indigenous and northern communities reduce their reliance on diesel for heat and electricity; and
- Updating and expanding Nutrition North Canada, a program aimed at alleviating high food costs in the North.

CONTRIBUTING ACTIONS

To protect Canadians and build healthy communities, we will:

Demonstrate leadership on assessing and remediating contaminated sites

Assess and remediate federal contaminated sites through the Federal Contaminated Sites Action Plan.

Prevent environmental emergencies or mitigate their impacts

Collaborate with provinces, territories and other partners to protect Canadians and their environment from the effects of emergency pollution incidents by providing science-based expert advice and regulations.

Better understand air pollutants and harmful substances

Conduct scientific research and analysis to better understand the sources and effects of outdoor air pollutants, indoor air pollutants and chemical substances. These activities will focus on:

- ♦ Better understanding and managing the health risks to Canadians; and
- ♦ Identifying and addressing the effects of air pollution on ecosystems and wildlife.

As part of efforts to reduce and, wherever possible, eliminate contaminants and existing commercial substances which pose a potential risk, assess 100% of new substances and 1,500 targeted existing substances for health and environmental risk between 2016–2017 and 2020–2021.

Conduct research and track harmful substances in the environment, including contaminant levels in the Canadian North.

Provide information to inform action and decision making

Provide information to:

- ♦ Help Canadians understand air quality in their area;
- ♦ Support decision making by federal custodians of contaminated sites; and
- ♦ Help Canadians take action to reduce their exposure to harmful substances and air pollutants, for example radon.

Use legislation and regulations to address outdoor air pollutant emissions and harmful substances

Develop and implement laws and regulations to limit emissions of air pollutants, including:

- ♦ Nitrogen oxides;
- ♦ Sulphur dioxide;
- ♦ Particulate matter;
- ♦ Volatile organic compounds; and
- ♦ Ozone-depleting substances.

Manage harmful substances which pose risks; ensure risk management measures are in place for substances identified as harmful; make it easier for organizations to report data; and carry out compliance promotion and enforcement activities in the industrial and transportation sectors, particularly rail and aviation.

Work with provinces and territories to minimize and reduce emissions of ozone-depleting substances and alternatives through the National Action Plan for the Environmental Control of Ozone-Depleting Substances and their Halocarbon Alternatives.

Work with partners on outdoor air quality and chemicals management

Work with provinces, territories and other stakeholders to address indoor and outdoor air quality, including reducing GHG emissions from the transportation, industrial and energy sectors.

Participate in joint initiatives to manage risks posed by harmful substances to nature and water, and work with domestic and international partners through programs like Computers for Schools and the National Pollutant Release Inventory.

Provide leadership and expertise to World Health Organization initiatives on chemicals management and air pollution awareness and reduction strategies.

Support voluntary action to reduce outdoor air pollutant emissions

Encourage businesses and Canadians to reduce air pollutant emissions, including through the use of targeted economic instruments. This approach includes the imposition of a levy payable by manufacturers or importers of certain fuel-inefficient passenger vehicles.

Provide in-kind support and funding to reduce outdoor air pollutants

Support projects and activities that help reduce outdoor air pollutants from the marine sector by funding the installation of marine shore power facilities at Canadian ports.

Invest in technologies to improve outdoor air quality

Make strategic investments in the development, commercialization and adoption of technologies that will improve air quality.

Take a leading role in international agreements and collaboration on chemicals management and transboundary air pollution

Negotiate on behalf of the Government of Canada, represent the government's interests internationally, and implement international agreements related to chemicals management.

Leverage international collaboration to maximize access to global science for risk assessment of potentially harmful substances.

Negotiate on behalf of Canada and implement and/or strengthen agreements to reduce transboundary air pollution.

CONNECTIONS WITH OTHER FSDS AREAS

Building safe and healthy communities is linked to FSDS targets on climate action, protecting habitats, and supporting vulnerable people and sectors:

- ♦ [Investing in green and climate-resilient infrastructure](#) can help protect communities from climate impacts and reduce air pollutant emissions
- ♦ [Clean technology](#) can reduce air pollutant emissions
- ♦ Expanding opportunities to [connect with nature](#) helps build healthy and sustainable communities
- ♦ Managing risks from harmful substances helps prevent them from polluting [lakes and rivers](#)
- ♦ Access to [safe and healthy food](#) helps communities flourish
- ♦ [Climate change](#) is exacerbating air quality issues in some areas of Canada

CANADA IN THE WORLD

Building safe and healthy communities supports the 2030 Agenda and its global sustainable development goals—in particular SDG 3, Good Health and Well-being; and SDG 12, Responsible Consumption and Production. It also supports specific SDG targets, as well as other international agreements and initiatives.



For details on how this goal supports international action, see Annex 3.

OUR PARTNERS

Provinces and territories are taking action to protect Canadian communities from air pollutants and other harmful substances. For example, under the Air Quality Management System, they are working to reduce air pollutant emissions and keep ambient air pollutant levels below the CAAQS. They have also agreed to report annually on air quality within local air zones.

Provincial and territorial governments also establish legislation and regulations that prohibit pollution and set requirements and standards for remediating contaminated sites outside federal lands.

Municipalities are key partners as well—their decisions related to public transit, waste management, buildings, and other areas have a significant impact on air pollution, as well as Canadians' quality of life.

PARTNERS TAKING ACTION – CITY OF VANCOUVER

The City of Vancouver's vision is to create opportunities today while building a strong local economy, vibrant and inclusive neighbourhoods, and an internationally recognized city that meets the needs of generations to come. Its [Greenest City Action Plan](#) sets out measurable and attainable targets intended to help put Vancouver on the path to becoming the greenest city in the world.

Since the plan was established in 2011, 80% of its targets have been completed. Accomplishments to date include reducing GHG emissions by 15% across the city and increasing the proportion of trips made by sustainable transportation within the city to 50% of all trips.

TAKE ACTION!

- If you can, cycle or take public transit rather than driving
- If you drive, choose a lower-emitting vehicle and avoid idling
- Keep an eye on the Air Quality Health Index, especially in summer
- Take special precautions if there is a wildfire near your community
- Keep gas-, oil- and wood-burning stoves, heaters and appliances in good condition
- Buy products that are low in, or free from, volatile organic compounds
- Plant trees to increase the urban forest canopy, provide shade, and improve air quality
- Learn more about chemical substances, what we are doing, and what you can do

CONCLUSION

The 2016–2019 FSDS is the beginning of a new approach to sustainable development—one that we will implement together.

Drawing on the thoughtful input of Canadians and stakeholders, we have substantially improved on the draft strategy released for public consultation in February 2016. Our new plan presents 13 long-term, aspirational goals, specific and measurable targets, new short-term milestones, and clear action plans that show how we will advance our sustainability priorities over the next three years.

The 2016–2019 FSDS is the foundation of Canada’s domestic response to the SDGs, and its framework is a Canadian reflection of those global goals. As a result, it will help set us on a path to implement the SDGs alongside our international partners.

While we’ve made progress, we know that we must go further. That’s why we ask that you continue to be engaged on sustainable development. We hope you’ll continue to provide comments and ideas as we implement the 2016–2019 FSDS and prepare to update the strategy for 2019–2022.

ANNEX 1: ABOUT THE FEDERAL SUSTAINABLE DEVELOPMENT STRATEGY

The Federal Sustainable Development Strategy (FSDS) is our primary vehicle for sustainable development planning and reporting. It also forms the foundation of our response to implement the global sustainable development goals (SDGs) of the 2030 Agenda for Sustainable Development. It sets out our sustainable development priorities, establishes goals and targets, and identifies actions to achieve them.

LEGISLATIVE BASIS

The 2008 *Federal Sustainable Development Act* establishes the requirement to table the FSDS. Its purpose is to provide the legal framework for developing and implementing an FSDS that will make environmental decision making more transparent and accountable to Parliament. The Act requires the Minister of Environment and Climate Change to table a whole-of-government FSDS every three years.

THE ROLE OF DEPARTMENTS AND AGENCIES

Environment and Climate Change Canada has a key role in implementing the Act. It houses the Sustainable Development Office (SDO), which is responsible for developing and maintaining systems and procedures to monitor progress on implementation of the FSDS, and for preparing FSDS progress reports at least once every three years. The SDO also coordinates the development of the FSDS.

However, sustainable development is more than an environmental issue—its breadth means that it cuts across many departmental and agency mandates. The Act reflects this, requiring that agencies named in the Act's Schedule and departments named in Schedule I to the *Financial Administration Act* prepare sustainable development strategies that comply with and contribute to the FSDS.

The role of departments and agencies also includes:

- ♦ Working collaboratively with Environment and Climate Change Canada to develop the FSDS;
- ♦ Integrating environmental and sustainable development considerations into policy, plan and program development through strategic environmental assessment; and
- ♦ Reporting annually on their specific contributions to the FSDS.

THE ROLE OF PUBLIC CONSULTATION

Public consultation is an important part of FSDS development under the Act. Each draft FSDS 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 FSDS to:

- ♦ The Commissioner of the Environment and Sustainable Development;
- ♦ The Sustainable Development Advisory Council (a multi-stakeholder advisory body consisting of at least one representative from each province and territory and three from each of the following: Indigenous Peoples, environmental non-governmental organizations, organizations representative of business, and organizations representative of labour);
- ♦ The appropriate committee of each House of Parliament; and
- ♦ The public.

Consultation results inform the final FSDS and are summarized in a publicly-available [synthesis report](#).

THE STRUCTURE OF THE FSDS

The 2016–2019 FSDS is organized around 13 aspirational goals that are a Canadian reflection of the SDGs, acknowledging our unique responsibilities and circumstances:



EFFECTIVE ACTION ON CLIMATE CHANGE

A low-carbon economy contributes to limiting global average temperature rise to well below two degrees Celsius and supports efforts to limit the increase to 1.5 degrees Celsius



LOW-CARBON GOVERNMENT

The Government of Canada leads by example by making its operations low-carbon



CLEAN GROWTH

A growing clean technology industry in Canada contributes to clean growth and the transition to a low-carbon economy



MODERN AND RESILIENT INFRASTRUCTURE
Modern, sustainable, and resilient infrastructure supports clean economic growth and social inclusion



CLEAN ENERGY
All Canadians have access to affordable, reliable and sustainable energy



HEALTHY COASTS AND OCEANS
Coasts and oceans support healthy, resilient and productive ecosystems



PRISTINE LAKES AND RIVERS
Clean and healthy lakes and rivers support economic prosperity and the well-being of Canadians



SUSTAINABLY MANAGED LANDS AND FORESTS
Lands and forests support biodiversity and provide a variety of ecosystem services for generations to come



HEALTHY WILDLIFE POPULATIONS
All species have healthy and viable populations



CLEAN DRINKING WATER
All Canadians have access to safe drinking water and, in particular, the significant challenges Indigenous communities face are addressed



SUSTAINABLE FOOD
Innovation and ingenuity contribute to a world-leading agricultural sector and food economy for the benefit of all Canadians



CONNECTING CANADIANS WITH NATURE
Canadians are informed about the value of nature, experiencing nature first hand, and actively engaged in its stewardship



SAFE AND HEALTHY COMMUNITIES
All Canadians live in clean, sustainable communities that contribute to their health and well-being

FSDS goals:

- ◆ Are aspirational;
- ◆ Take a long-term view;
- ◆ Address important challenges and problems;
- ◆ Remain attuned to environmental information, data and indicators;
- ◆ Encourage flexibility in the choice of strategies for achievement; and
- ◆ Reflect domestic and international priorities and commitments.

One or more targets contribute to each goal. To the extent possible, targets are intended to:

- ◆ Meet the SMART criteria:
 - Specific – Clearly articulated, well-defined and focused;
 - Measurable – Able to determine the degree to which there is completion or attainment;
 - Achievable – Realistic and practical; attainable within operational constraints dependent on resource availability, knowledge and timeframe;
 - Relevant – Tied to government priorities and mandate; contributes to a desired outcome in Canadian society, economy or environment; and
 - Time-bound – Expresses clear deadlines;
- ◆ Take a medium-term view;
- ◆ Fall within federal jurisdiction and departmental mandates;
- ◆ Remain informed by environmental baseline data and indicators;
- ◆ Be consistent with Government of Canada priorities; and
- ◆ Reflect the precautionary principle.

Short-term milestones complement FSDS targets. They represent interim steps that will help ensure we stay on track to achieve our longer-term objectives.

Action plans set out what we will do to achieve our targets. They include priority measures, as well as other actions that support the targets. Action plans constitute implementation strategies as required by the Act. Actions fall into one of the following categories, depending on their purpose:

Policy research and analysis

Scientific research and analysis

Funding and in-kind support

Voluntary sustainable development action

International agreements and initiatives

Legislation and regulations

Domestic and international collaboration

Investment in infrastructure and technology

Protection and management of natural spaces

Doing our part

While provinces and territories, Indigenous Peoples, business, the scientific community, non-governmental organizations and Canadian citizens contribute to achieving environmental outcomes, only federal actions are included in FSDS action plans.

For the first time, with the 2016–2019 FSDS we’re committing to making our strategy “evergreen”. Our interactive e-strategy will enable us to update the strategy on an ongoing basis—not just every three years—to incorporate new commitments, decisions and actions. Through the e-strategy, we will also provide periodic updates on progress toward our milestones, targets and aspirational goals.

Updates to the strategy will be informed by our ongoing conversation with our partners and individual Canadians. We will also update the strategy to reflect the outcomes of key policy processes, such as work with provinces, territories and Indigenous Peoples to develop a pan-Canadian framework on clean growth and climate change.

ANNEX 2: PERFORMANCE MEASUREMENT

Performance measurement is an essential part of our sustainable development approach, and we hope you'll continue to be engaged as we implement and report on the 2016–2019 Federal Sustainable Development Strategy (FSDS). Three key vehicles support FSDS performance measurement:

- ♦ FSDS progress reports;
- ♦ Departmental Sustainable Development Strategies (DSDSs); and
- ♦ The Canadian Environmental Sustainability Indicators

FSDS PROGRESS REPORTS

The *Federal Sustainable Development Act* requires us to prepare an FSDS progress report at least once every three years. Progress reports will let you know how we are implementing the FSDS and how quickly we are making progress toward its goals and targets. Going forward, FSDS progress reports will be developed using a dashboard approach to ensure they are clear and accessible.

While FSDS progress reports provide important information on environmental outcomes, it is important to note that responsibility for the environment is shared, and that we support environmental sustainability within the constraints of our jurisdiction and authorities. As a result, it can be difficult to directly link federal actions to environmental outcomes.

DEPARTMENTAL SUSTAINABLE DEVELOPMENT STRATEGIES

DSDSs provide detailed information on what departments and agencies are doing to meet the goals, targets and milestones set out in the 2016–2019 FSDS. Over the next three years, taking into account your comments and ideas, participating departments and agencies will develop DSDSs that comply with and contribute to the FSDS.

DSDSs are linked with core departmental planning and reporting processes, and include:

- ♦ The department's sustainable development vision;
- ♦ Information on departmental decision making and sustainable development practices, including implementation of strategic environmental assessment;

- ♦ Information on departmental activities that contribute to FSDS goals and targets; and
- ♦ Performance indicators that complement environmental sustainability indicators by clarifying departments' contributions to environmental outcomes.

Departments and agencies bound by the Act contribute differently to FSDS goals and targets depending on their mandate; however, all are responsible for contributing to our goal of low-carbon government.

INDICATORS

The indicators we will use to measure and report on our progress are largely drawn from the Canadian Environmental Sustainability Indicators program. Indicators are selected according to 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); and
- ♦ Data availability and integrity (uses existing high-quality data with adequate coverage).

Environment and Climate Change Canada produces indicators with the support of 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.

While a wide range of indicators are available through the [Canadian Environmental Sustainability Indicators website](#), the following indicators will be used to track and measure progress on the 2016–2019 FSDS. Indicator titles in the table below link to the most recent available information.

TABLE 2 – INDICATORS FOR MEASURING PROGRESS ON THE 2016–2019 FSDS

GOAL	INDICATOR(S)	UPDATE CYCLE
Effective action on climate change	National GHG emission level	Annual update; Spring
	GHG intensity	Annual update; Spring
Low-carbon government	Percentage change in energy related GHG emissions from facilities and fleets relative to fiscal year 2005–2006	TBD
Clean growth	Clean tech sector GDP	A 2015 baseline on the industry will be established by 2018, after which the reporting cycle will be determined
	Clean tech sector jobs	A 2015 baseline on the industry will be established by 2018, after which the reporting cycle will be determined
Modern and resilient infrastructure	Average % decrease in volume of water leakage and/or infiltration that can be attributed to funded investments	Information to be available at the end of the project/program cycle
	Number of systems that have improved the quality of wastewater effluent or storm water discharge as a result of funded investments	Information to be available at the end of the project/program cycle
Clean energy	Electricity generation by source	Annual update; Winter
Healthy coasts and oceans	Canada's protected areas (marine)	Annual update; Summer
	Status of major fish stocks	Annual update; Fall
	Sustainable fish harvest	Annual update; Fall
	Quality of shellfish growing area	Biennial update; next update 2018
	Number and volume of pollution spills from ships	Triennial update; next update 2018
Pristine lakes and rivers	Phosphorus levels in the Great Lakes	Triennial update; next update 2017
	Reducing phosphorus loads to Lake Simcoe and South-eastern Georgian Bay	Annual update; Fall
	Nutrients in Lake Winnipeg	Annual update; Fall
	Phosphorus and nitrogen levels in the St. Lawrence River	Biennial update; next update 2018
	Restoring the Great Lakes Areas of Concern	Annual update; Fall
	Freshwater quality in Canadian rivers	Annual update; Winter
	Water quantity in Canadian rivers	Biennial update; next update 2018
	Managing metal mining effluent quality in Canada	Annual update; Fall
	Managing pulp and paper effluent quality in Canada	Annual update; Winter
Sustainably managed lands and forests	Canada's protected areas (terrestrial)	Annual update; Summer
	Ecological integrity of Canada's national parks	Update every five years; next update 2017
	Sustainability of timber harvest	Biennial update; next update 2018
	Amount of Canadian forests; deforestation	Annual update
	Forest regeneration	Annual update
	Changes in land-use	To be determined

TABLE 2 – INDICATORS FOR MEASURING PROGRESS ON THE 2016–2019 FSDS

GOAL	INDICATOR(S)	UPDATE CYCLE
Healthy wildlife populations	Species at risk population trends	Annual update; Fall
	General status of species in Canada	Update every five years; next update 2017
	Changes in wildlife species disappearance risks	Annual update; Fall
	Population status of Canada's migratory birds	Triennial update; next update 2018
Clean drinking water	Number of long-term drinking water advisories affecting First Nations drinking water systems	Annual update; Fall
	Drinking water advisories in Canada	Biennial update; next update 2018
Sustainable food	Water quality and soil quality agri-environmental metrics	Update every five years; next update 2021
	Environmental farm planning on agricultural land	Annual update
	Management of Canadian aquaculture	Annual update; Spring
	Changes in land-use	To be determined
	Environmental Sustainability of Canadian Agriculture: Agri-Environmental Indicator Report Series – Report #4	Updated every five years
Connecting Canadians with nature	Number of visits at Parks Canada natural heritage places	Annual update; Summer
	Number of visits to selected national wildlife areas	Annual update, Winter
	Trends in percentage of Canadians who report that they visited parks or public greenspaces	Biennial update; next update 2018
	Percentage of Canadians who report that they take definite action to protect the environment	Biennial update; next update 2018
Safe and healthy communities	Fine particulate matter and ground-level ozone air quality indicators relative to CAAQS set for 2015	Annual update; Summer
	Air pollutant emissions	Annual update; Spring
	Levels of human exposure to harmful substances	Triennial update; next update 2019
	Levels of harmful substances in the environment	PBDE and PFOS – Triennial update; next update 2018 and 2019
		Release of harmful substance – Annual update; Fall

ANNEX 3: CANADA IN THE WORLD – DETAILED INFORMATION

Canada is not alone in taking action to protect the environment and improve our quality of life—sustainable development is a priority around the world. In addition to advancing our domestic priorities, FSDS goals, targets and actions support the 2030 Agenda for Sustainable Development and its global sustainable development goals (SDGs), as well as other international agreements and initiatives.

The following sections provide detailed information on how our strategy aligns with the work of the international community.

EFFECTIVE ACTION ON CLIMATE CHANGE

Taking action on climate change supports SDG 7, Affordable and Clean Energy; SDG 12, Responsible Consumption and Production; SDG 13, Climate Action; and SDG 17, Partnerships for the Goals. In particular, it supports the following SDG targets:

- ◆ Target 7.3 – By 2030, double the global rate of improvement in energy efficiency
- ◆ Target 12.8 – By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature
- ◆ Target 13.1 – Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- ◆ Target 13.2 – Integrate climate change measures into national policies, strategies and planning
- ◆ Target 13.3 – Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
- ◆ Target 17.16 – Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries

It also contributes to the following additional SDGs:

- ◆ Goal 3 – Good Health and Well-being

- ◆ Goal 9 – Industry, Innovation and Infrastructure
- ◆ Goal 11 – Sustainable Cities and Communities
- ◆ Goal 14 – Life Below Water
- ◆ Goal 15 – Life on Land

It supports other international agreements and initiatives, including:

- ◆ Arctic Council Framework for Action on Enhanced Black Carbon and Methane Emissions Reductions
- ◆ Canada-China Climate Change Working Group
- ◆ Climate and Clean Air Coalition
- ◆ Global Methane Initiative
- ◆ Intergovernmental Panel on Climate Change
- ◆ Montreal Protocol on Substances that Deplete the Ozone Layer
- ◆ North American Climate, Clean Energy and Environment Partnership
- ◆ North American Memorandum of Understanding Concerning Climate Change and Energy Collaboration
- ◆ Sendai Framework for Disaster Risk Reduction 2015–2030
- ◆ United Nations Convention to Combat Desertification
- ◆ United Nations Framework Convention on Climate Change

LOW-CARBON GOVERNMENT

Doing our part on climate change supports SDG 12, Responsible Consumption and Production; and SDG 13, Climate Action. In particular, it supports the following SDG targets:

- ◆ Target 12.7 – Promote public procurement practices that are sustainable, in accordance with national policies and priorities
- ◆ Target 13.2 – Integrate climate change measures into national policies, strategies and planning

It also supports other international agreements and initiatives, including the North American Climate, Clean Energy and Environment Partnership.

CLEAN GROWTH

Investing in clean technology and innovation supports SDG 9, Industry, Innovation and Infrastructure; and SDG 12, Responsible Consumption and Production. In particular, it supports the following SDG targets:

- ◆ Target 9.5 – Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending
- ◆ Target 12.6 – Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

It also contributes to the following additional SDGs:

- ◆ Goal 7 – Affordable and Clean Energy
- ◆ Goal 8 – Decent Work and Economic Growth
- ◆ Goal 13 – Climate Action
- ◆ Goal 17 – Partnerships for the Goals

It supports other international agreements and initiatives, including:

- ◆ Joint Declaration on Canada-China Clean Technology Cooperation
- ◆ US-Canada Joint Statement on Climate, Energy and Arctic Leadership
- ◆ North America Energy Ministers Memorandum of Understanding on Climate Change and Energy
- ◆ Korea-Canada Memorandum of Understanding on Cooperation in Innovation and Energy Technologies
- ◆ Mission Innovation
- ◆ North American Memorandum of Understanding Concerning Climate Change and Energy Collaboration

MODERN AND RESILIENT INFRASTRUCTURE

Investing in infrastructure supports SDG 9, Industry, Innovation and Infrastructure, and in particular the following SDG target:

- ◆ Target 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, with all countries taking action in accordance with their respective capabilities

It also contributes to the following additional SDGs:

- ◆ Goal 6 – Clean water and sanitation
- ◆ Goal 13 – Climate Action

It supports other international agreements and initiatives, including:

- ◆ North American Memorandum of Understanding Concerning Climate Change and Energy Collaboration
- ◆ US-Canada Joint Statement on Climate, Energy and Arctic Leadership

CLEAN ENERGY

Investing in clean energy supports SDG 7, Affordable and Clean Energy, and in particular the following SDG target:

- ◆ Target 7.2 – By 2030, increase substantially the share of renewable energy in the global energy mix

It also contributes to the following additional SDGs:

- ◆ Goal 9 – Industry, Innovation and Infrastructure
- ◆ Goal 12 – Responsible Consumption and Production

It supports other international agreements and initiatives, including:

- ◆ North American Climate, Clean Energy and Environment Partnership
- ◆ Canada-Mexico Partnership
- ◆ Mission Innovation
- ◆ North American Memorandum of Understanding Concerning Climate Change and Energy Collaboration
- ◆ United Nations Framework Convention on Climate Change

HEALTHY COASTS AND OCEANS

Protecting coasts and oceans supports SDG 14, Life Below Water, and in particular the following SDG targets:

- ◆ Target 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
- ◆ Target 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
- ◆ Target 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
- ◆ Target 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

It also contributes to the following additional SDGs:

- ◆ Goal 6 – Clean Water and Sanitation
- ◆ Goal 12 – Responsible Consumption and Production
- ◆ Goal 17 – Partnerships for the Goals

It supports other international agreements and initiatives, including:

- ◆ 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the London Protocol)
- ◆ Canada-US Bilateral Agreement on Shellfish Sanitation
- ◆ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (London Convention)
- ◆ Regional fisheries management organizations
- ◆ United Nations Convention on Biological Diversity and the related global and national biodiversity targets for 2020
- ◆ United Nations Convention on the Law of the Sea

PRISTINE LAKES AND RIVERS

Protecting lakes and rivers supports SDG 6, Clean Water and Sanitation, and in particular the following SDG targets:

- ◆ Target 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
- ◆ Target 6.5 – By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- ◆ Target 6.6 – By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

It also contributes to the following additional SDGs:

- ◆ Goal 8 – Decent Work and Economic Growth
- ◆ Goal 12 – Responsible Consumption and Production
- ◆ Goal 14 – Life Below Water
- ◆ Goal 15 – Life on Land
- ◆ Goal 17 – Partnerships for the Goals

It supports other international agreements and initiatives, including:

- ◆ 1971 Convention on Wetlands of International Importance (Ramsar)
- ◆ Canada-US Great Lakes Water Quality Agreement
- ◆ Great Lakes Fisheries Commission
- ◆ Treaty Relating to the Boundary Waters and Questions Arising Along the Border between the United States and Canada (The Boundary Waters Treaty)

SUSTAINABLY MANAGED LANDS AND FORESTS

Conserving lands and managing forests sustainably supports SDG 8, Decent Work and Economic Growth; and SDG 15, Life on Land. In particular, it supports the following SDG targets:

- ◆ Target 8.2 – Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value-added and labour-intensive sectors
- ◆ 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
- ◆ Target 15.1 – By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
- ◆ Target 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

It also contributes to SDG 11, Sustainable Cities and Communities.

It also supports other international agreements and initiatives, including:

- ◆ 1971 Convention on Wetlands of International Importance (Ramsar)
- ◆ Arctic Council work on Conservation of Arctic Flora and Fauna
- ◆ Convention Concerning the Protection of the World Cultural and Natural Heritage
- ◆ Convention on International Trade in Endangered Species of Wild Fauna and Flora
- ◆ Intergovernmental Platform on Biodiversity and Ecosystem Services
- ◆ United Nations Convention on Biological Diversity and the related global and national biodiversity targets for 2020
- ◆ North American Waterfowl Management Plan

HEALTHY WILDLIFE POPULATIONS

Protecting Canada's wild species supports SDG 15, Life on Land, and in particular the following SDG target:

- ◆ Target 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

It also contributes to SDG 11, Sustainable Cities and Communities.

It supports other international agreements and initiatives, including:

- ◆ Agreement between the Government of Canada and the Government of the United States on the Conservation of the Porcupine Caribou Herd
- ◆ Agreement on the Conservation of Polar Bears
- ◆ Arctic Council work on Conservation of Arctic Flora and Fauna
- ◆ Convention for the Protection of Migratory Birds in the United States and Canada
- ◆ Convention on International Trade in Endangered Species of Wild Fauna and Flora
- ◆ Memorandum of Understanding Between Environment Canada and the United States Department of the Interior for the Conservation and Management of Shared Polar Bear Populations
- ◆ North American Bird Conservation Initiative
- ◆ North American Waterfowl Management Plan
- ◆ Pan American Shorebird Program
- ◆ United Nations Convention on Biological Diversity and the related global and national biodiversity targets for 2020
- ◆ Pacific Salmon Treaty
- ◆ Initiatives under:
 - International Commission on the Conservation of Atlantic Tunas
 - Northwest Atlantic Fisheries Organization
 - International Whaling Commission
 - International Maritime Organization
 - International Plan of Action for the Conservation and Management of Sharks

CLEAN DRINKING WATER

Ensuring safe drinking water for all Canadians supports SDG 3, Good Health and Well-being; and SDG 6, Clean Water and Sanitation. In particular, it supports the following SDG targets:

- ♦ Target 3.9 – By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
- ♦ Target 6.1 – By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- ♦ Target 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
- ♦ Target 6.b – Support and strengthen the participation of local communities in improving water and sanitation management

It also supports other international agreements and initiatives, including the United Nations Declaration on the Rights of Indigenous Peoples.

SUSTAINABLE FOOD

Ensuring sustainable food supports SDG 2, Zero Hunger, and in particular the following SDG targets:

- ♦ Target 2.3 – by 2030 double the agricultural productivity and the incomes of small-scale food producers, particularly women, Indigenous Peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
- ♦ 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

It also contributes to the following additional SDGs:

- ♦ Goal 12 – Responsible Consumption and Production
- ♦ Goal 14 – Life Below Water
- ♦ Goal 15 – Life on Land

It supports other international agreements and initiatives, including:

- ♦ Canada-US Bilateral Agreement on Shellfish Sanitation
- ♦ Food and Agriculture Organization of the United Nations

- ♦ International Treaty on Plant Genetic Resources for Food and Agriculture
- ♦ Regional fisheries management organizations
- ♦ Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
- ♦ Stockholm Convention on Persistent Organic Pollutants
- ♦ United Nations Convention on Biological Diversity and the related global and national biodiversity targets for 2020
- ♦ United Nations Convention to Combat Desertification
- ♦ United Nations Declaration on the Rights of Indigenous Peoples
- ♦ United Nations Framework Convention on Climate Change

CONNECTING CANADIANS WITH NATURE

Helping Canadians connect with nature supports SDG 11, Sustainable Cities and Communities; and SDG 12, Responsible Consumption and Production. In particular, it supports the following SDG targets:

- ♦ Target 11.4 – Strengthen efforts to protect and safeguard the world's cultural and natural heritage
- ♦ Target 12.8 – By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

It also supports other international agreements and initiatives, including the United Nations Convention on Biological Diversity and the related global and national biodiversity targets for 2020.

SAFE AND HEALTHY COMMUNITIES

Building safe and healthy communities supports SDG 3, Good Health and Well-being; and SDG 12, Responsible Consumption and Production. In particular, it supports the following SDG targets:

- ♦ Target 3.9 – By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
- ♦ Target 12.4 – By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

It also contributes to the following additional SDGs:

- ♦ Goal 2 – Zero Hunger
- ♦ Goal 11 – Sustainable Cities and Communities
- ♦ Goal 13 – Climate Action
- ♦ Goal 15 – Life on Land
- ♦ Goal 17 – Partnerships for the Goals

It supports other international agreements and initiatives, including:

- ♦ 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the London Protocol)
- ♦ Agreement between the Government of Canada and the Government of the United States on Air Quality
- ♦ Agreement Between the Government of Canada and the Government of the United States Concerning the Transboundary Movement of Hazardous Waste
- ♦ Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
- ♦ Canada-US Regulatory Cooperation Council – Regulatory Partnership Statement on Chemicals
- ♦ Clean Air and Climate Coalition initiative to address short-lived climate pollutants
- ♦ Cooperative Arrangement Between the National Industrial Chemicals Notification and Assessment Scheme of Australia and the Department of Environment of Canada and the Department of Health of Canada Related to Enhancing Technical Cooperation and sharing Information on Industrial Chemicals
- ♦ Intergovernmental Panel on Climate Change
- ♦ Memorandum of Understanding Between the European Chemicals Agency and Environment Canada/Health Canada
- ♦ Minamata Convention on Mercury
- ♦ Montreal Protocol on Substances that Deplete the Ozone Layer

- ♦ Organisation for Economic Cooperation and Development Decisions related to the Chemicals Programme
- ♦ North American Climate, Clean Energy and Environment Partnership
- ♦ North American Memorandum of Understanding Concerning Climate Change and Energy Collaboration
- ♦ Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
- ♦ Stockholm Convention on Persistent Organic Pollutants
- ♦ Strategic Approach to International Chemicals Management
- ♦ United Nations Economic Commission for Europe Convention on Long-range Transboundary Air Pollution
- ♦ United Nations Economic Commission for Europe Protocol to Abate Acidification, Eutrophication, and Ground-level Ozone (Gothenburg Protocol)
- ♦ United Nations Economic Commission for Europe Protocol on Heavy Metals
- ♦ United Nations Economic Commission for Europe Protocol on Persistent Organic Pollutants
- ♦ United Nations Framework Convention on Climate Change
- ♦ Vienna Convention for the Protection of the Ozone Layer
- ♦ World Health Organization road map to address global air pollution health risks

ANNEX 4: LIST OF DEPARTMENTS AND AGENCIES

The following departments and agencies are required to table sustainable development strategies under the *Federal Sustainable Development Act*:

1. Agriculture and Agri-Food Canada
2. Atlantic Canada Opportunities Agency
3. Canada Border Services Agency
4. Canada Economic Development for Quebec Regions
5. Canada Revenue Agency
6. Canadian Heritage
7. Department of Finance Canada
8. Department of Justice Canada
9. Employment and Social Development Canada
10. Environment and Climate Change Canada
11. Fisheries and Oceans Canada
12. Global Affairs Canada
13. Health Canada
14. Immigration, Refugees and Citizenship Canada
15. Indigenous and Northern Affairs Canada
16. Innovation, Science and Economic Development Canada
17. National Defence
18. Natural Resources Canada
19. Parks Canada
20. Public Health Agency of Canada
21. Public Safety Canada
22. Public Services and Procurement Canada
23. Transport Canada
24. Treasury Board of Canada Secretariat
25. Veterans Affairs Canada
26. Western Economic Diversification Canada

While not bound by the Act, the following organizations have contributed to the draft 2016–2019 Federal Sustainable Development Strategy:

1. Canadian Coast Guard
2. Canadian Environmental Assessment Agency
3. Canadian Food Inspection Agency
4. Canadian Northern Economic Development Agency
5. Correctional Service Canada
6. Federal Economic Development Agency for Southern Ontario
7. Federal Economic Development Initiative for Northern Ontario
8. Infrastructure Canada
9. Jacques Cartier and Champlain Bridges Incorporated
10. National Capital Commission
11. National Research Council Canada
12. Royal Canadian Mounted Police
13. Standards Council of Canada
14. Statistics Canada
15. Sustainable Development Technology Canada

LIST OF ABBREVIATIONS

AOC: Area of Concern

CAAQS: Canadian Ambient Air Quality Standards

DSDS: Departmental Sustainable Development Strategy

FSDS: Federal Sustainable Development Strategy

GDP: Gross domestic product

GHG: Greenhouse gas

HFCs: Hydrofluorocarbons

MPA: Marine protected area

PBDE: Polybrominated diphenyl ether

PFOS: Perfluorooctane sulfonate

SDGs: Sustainable development goals

SMART: Specific, measurable, achievable, relevant and time-bound

UN: United Nations

UNESCO: United Nations Educational, Scientific and Cultural Organization

UK: United Kingdom

US: United States

GLOSSARY OF TERMS

Adaptation: Adjusting our decisions, activities, and thinking because of observed or expected changes in climate, in order to reduce harm or take advantage of new opportunities

Biodiversity: The variability among living organisms from all sources including, among others, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems

Clean energy: Renewable, nuclear, and carbon capture and storage technologies, as well as demand reduction through energy efficiency

Clean technology: Technologies that improve business performance while using resources more responsibly, and that reduce or eliminate negative environmental impact ([Sustainable Development Technology Canada, 2016](#))

Ecological integrity: A condition in which the natural components of an ecosystem—including physical elements, diversity of species and habitats, and ecological processes—are likely to persist

Ecosystem: An ecological community together with its environment, functioning as a unit

Ecosystem services: Services which humans derive from ecological functions such as photosynthesis, oxygen production, and water purification

Food security: A condition in which all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life

Green infrastructure: Infrastructure that protects communities and supports Canada's ongoing transition to a clean growth economy

Protected area: A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values ([IUCN, 2016](#))

Renewable energy: Energy obtained from natural resources that can be naturally replenished or renewed within a human lifespan

Resilience: The ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity of self-organization, and the capacity to adapt to stress and change ([Intergovernmental Panel on Climate Change, 2014](#))

Stewardship: Management of resources in such a way that they can be passed on with integrity to future generations

Sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs

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