Canada's National Framework for **Environmental Learning**

Environment and Climate Change Canada
Environnement et Changement climatique Canada

Canada

Cat. No.: En4-785/2025E-PDF
ISBN: 978-0-660-79786-1
EC25109

Environment and Climate Change Canada
Public Information Centre
Place Vincent Massey building
351 St-Joseph Boulevard
Gatineau, Quebec K1A 0H3
Toll free: 1-800-668-6767
Email: enviroinfo@ec.gc.ca

Aussi disponible en français

Table of Contents

Introduction

Environmental education is a powerful but underused tool to address the global crises of climate change, biodiversity loss and pollution. This will help build a cleaner and more sustainable economy for generations to come. It equips Canadians—children, youth and their educators in particular—with the knowledge, skills and agency they need to take meaningful action, navigate misinformation and disinformation, and be part of resilient communities. It is essential to supporting green jobs in Canada and transitioning to a resilient and sustainable society. It is also key to mitigating the adverse impacts of a changing climate on children's health, well-being and academic performance.

Environmental education is also an important part of Canada's international and domestic commitments. Around the world, governments and organizations are accelerating efforts to mainstream environmental education. It is paramount that Canada do the same to remain a competitive and respected global leader.

The National Framework for Environmental Learning[1] seeks to bridge gaps and better integrate environmental learning across Canada. It provides guiding principles, key focus areas and examples to inspire action. The Framework is for educators, policy makers and other leaders in the formal and non-formal education sectors to help them create or build on existing learning materials, programs and initiatives. It also supports the development of goals, assessment criteria and reporting. The Framework is high-level by design, to respect provincial and territorial jurisdictions and recognize the need to adapt it to local contexts.

The Framework is the result of a collaboration between Environment and Climate Change Canada (ECCC) and its partners and stakeholders, including the following:

- youth
- Indigenous peoples
- academia
- formal and non-formal education experts
- international partners
- provincial and territorial governments
- other federal departments
- philanthropic and private sectors
- industry

It was developed in response to a call from Canadians for a holistic and empowering National Framework for Environmental Learning. Please see the What We Heard report for more information.

[1] Environment and Climate Change Canada recognizes there is a variety of terms and definitions that convey the concept of environmental learning. These include, but are not limited to, climate education, climate literacy, biodiversity education, biodiversity literacy, environmental education, environmental literacy and education for sustainable development. For the purposes of this document, "environmental learning" is used to convey these concepts broadly, and is further defined by the outlined guiding principles and focus areas.

The Framework is a significant milestone in a collaborative and evolving process toward advancing environmental learning across Canada. As a critical next step, ECCC is working closely with partners and stakeholders to develop an implementation strategy. This will include more specific targets and measures for success. The Framework is an evergreen document that will be reviewed at regular intervals and adjusted to reflect emerging best practices and findings.

The National Framework for Environmental Learning is possible thanks to many organizations and individuals working together to elevate environmental education. We are grateful for your dedication and valuable contributions.

Guiding principles

The following principles helped shape the development of the Framework. They are meant to help guide future iterations and related engagements and implementation.

Grow collaboratively

The Framework includes a flexible but transformative set of guidelines to encourage decision makers to collaborate in ways that are relevant to their respective communities. It aligns with promising international and domestic policy frameworks for environmental learning and high-priority commitments related to environmental education. It also builds on existing efforts and best practices and policies to improve access to high-quality environmental learning that is relevant to local needs.

The Framework is designed to bring diverse sectors and communities together. Ongoing community engagement will inform its evolution and implementation. Harmonizing the efforts of multiple sectors across Canada will help create a more resilient population, national economy and environment. It will also help address the crisis of misinformation and disinformation by increasing all Canadians' levels of environmental literacy.

Deepen Indigenous leadership

Indigenous peoples have profound relationships with nature, and have successfully stewarded this land since time immemorial. They are on the front lines of the fight against biodiversity loss and climate change, the impacts of which they feel early and disproportionately. This makes Indigenous peoples uniquely positioned to be leaders in environmental learning.

The Framework embraces Indigenous leadership and perspectives in the development, implementation and evaluation of environmental learning policies. It considers Canada's commitments to the Truth and Reconciliation Commission of Canada's Calls to Action and those under the *United Nations Declaration on the Rights of Indigenous Peoples Act*.

The Framework recognizes the importance of Indigenous knowledge and sovereignty. At the core of the Framework is the weaving together of traditional Indigenous and Western ways of knowing. This concept has been popularized as the Two-Eyed Seeing approach (Etuaptmumk), although this is but one example in a rich diversity of Indigenous perspectives. The Two-Eyed Seeing concept was developed by Mi'kmaq Elders Albert and Murdena Marshall, with Dr. Cheryl Bartlett (For Our Future: Indigenous Resilience Report). The approach further reinforces the need to:

- address systemic barriers
- promote climate justice
- ensure environmental learning remains relational, hopeful and focused on action

Adopt a holistic approach

Addressing environmental issues requires a holistic approach that considers ecological, social and economic factors. The Framework is interdisciplinary and multisectoral, and it considers various aspects of the education system.

Environmental learning must move beyond traditional science-related fields to include competencies across all subject areas. It should also engage whole communities, including the following:

- school communities
- local governments and businesses
- other non-formal education organizations

Environmental learning should also go beyond the classroom and address environmental issues through facilities, operations and governance in formal and non-formal learning spaces.

A holistic approach to environmental learning makes it more relevant in terms of addressing complex environmental challenges in the real world. It better equips students and their educators with the knowledge, agency and hope needed to navigate these challenges. It also allows Canadians to embrace opportunities in their communities and celebrate the rich diversity of our country.

The following are a few International and regional examples of using a holistic approach to environmental learning:

- the UK's National Education Nature Park
- Finland's national core curriculum
- New Zealand's Te Whāriki
- Australia's Cross-Curriculum Priorities
- British Columbia's curriculum redesign
- New Brunswick's Climate Education Framework

Track progress

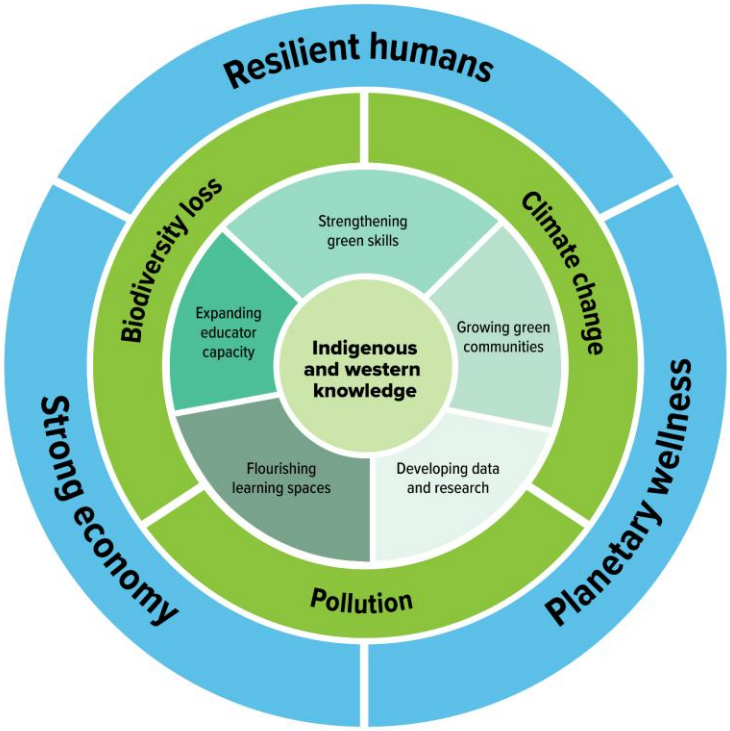
A lot of great environmental learning efforts are already happening across Canada. The Framework recognizes the need to better acknowledge, harmonize and report on these efforts.

That is why it is essential to (re)define success metrics in environmental learning. This will help prioritize economic growth targets, as well as social, cultural and environmental justice.

It is also important to:

- establish comprehensive monitoring, evaluation and public reporting frameworks
- include Indigenous-led methodologies
- include continuous community feedback

Environmental education compass



Vision
Central to the Framework's vision for environmental learning is the braiding together of Indigenous and Western perspectives. This collaborative approach radiates outward, influencing how all other aspects of the Framework should be envisioned and actioned.

Focus areas
The Framework includes five key action areas to increase quality environmental learning in Canada.

Challenges
Environmental learning fosters an understanding of the specific knowledge, tools, skills and agency needed to navigate the three biggest threats to our planet and ourselves:

- climate change
- pollution
- biodiversity loss

Societal outcomes
Prioritizing environmental learning in Canada will help drive a strong economy, planetary wellness and resilient humans.

Five focus areas for environmental education

The Framework is an opt-in framework that recognizes the value of:

Expanding educator capacity

- prioritizes increasing environmental learning in teacher education for in-service, pre-service and non-formal educators
- aligns with evidence-backed research:
    - for example, Learning for a Sustainable Future's (LSF's) 2025 survey of 4,200+ educators, youth and their guardians, which found that 62% of respondents agree that climate change education should be the role of teachers across all subjects and grades
- promotes equipping educators with quality resources, tools and training to enhance their understanding of climate change and biodiversity loss so they can teach it more confidently
- supports educators to enable future generations to develop better critical thinking skills and resilience, and learn how to navigate misinformation and disinformation

Creating flourishing learning spaces

- prioritizes resilience to climate change and improved biodiversity:
    - for example, creating climate-resilient indoor and outdoor learning spaces to protect against extreme weather events like heat waves
- supports provincial and territorial conservation efforts, as school grounds can become potential Other Effective area-based Conservation Measures (OECMs), which could contribute to meeting the pan-Canadian criteria for Canada's 30 by 30 conservation commitment
- aligns with UNESCO's definition of a "green school"
    - a learning institution that takes a whole-of-institution approach by "addressing climate change [biodiversity loss and pollution] through its teaching, facilities and operations, school governance and community partnerships"
- focuses on bringing nature to young Canadians and bringing young Canadians to nature, in order to provide equitable access to local environments and Indigenous knowledge, and improve climate-resilient learning spaces
- encourages the development of green skills in a relevant local context
    - this allows students to explore their environments and engage in active learning, which, in turn, will help improve their mental, physical and emotional well-being, and academic performance

Developing data and research

- prioritizes Canadian research to support environmental education policy and decision making,
    - evidence-based data will fund and foster support for research led by Indigenous rights holders, while also enabling Indigenous communities to carry out research to support their own governance
- establishes how to best track progress and measure the impacts of prioritizing environmental learning in Canada
    - these metrics will help monitor and improve the ongoing effectiveness of the Framework
- addresses the development of evidence-based research on key topics, including:
    - reducing barriers to give all Canadians equal access to quality environmental education
    - studying behaviours related to climate change education and action
    - identifying key school system performance indicators related to sustainability
    - identifying gaps in reporting and assessments

    - studying youth health and wellness
    - navigating misinformation and disinformation related to climate change and other environmental issues

Growing green communities

- prioritizes identifying, expanding and supporting the development of non-formal and formal learning spaces through community partnerships and networks
    - this will help children, youth and educators to gain the knowledge, skills and agency needed to advance collective environmental action
- aligns with UNESCO's definition of green communities
- fosters active, measurable change in local communities to allow youth and educators to see their impact
- mobilizes the following toward making a collective impact:
    - cities and municipalities
    - federal and provincial governments
    - schools and school boards
    - youth-led and/or Indigenous-led organizations
    - funders
    - non- and for-profit environmental organizations
    - non-formal learning sites, such as science centres, zoos, libraries, museums and aquariums
    - industries

Strengthening green skills

- prioritizes the development of green skills as we transition to a clean economy
    - this will help Canada's evolving economy to succeed and protect our unique national identity
- aligns with Canada's Sustainable Jobs Plan
    - the plan defines a sustainable job as "any job that is compatible with Canada's path to a net-zero emissions and climate resilient future"
- supports Canada's commitment to the Sustainable Development Goals (SDGs)
    - education for green jobs is a critical part of supporting healthy ecosystems (SDG 14 and 15) and for providing quality education (SDG 4)
- addresses projected labour and green skills shortages
    - Canada must ensure the workforce is ready for the estimated 300,000 to 400,000 new green jobs that will be added by 2030 or it will face challenges to advancing a green economy and see our growth potential limited
- adapting to meet diverse needs across Canada's vast landscape

Case studies by focus area

Here are a few examples of projects that reflect the Framework's focus areas in action.

Expanding educator capacity

Accelerating Climate Change Education in Teacher Education – Lakehead University
This project develops and strengthens climate change education in teacher education across Canada. It provides professional learning opportunities to pre-service and in-service kindergarten to Grade 12 teachers and higher education faculty members. Key elements of the project include:

- leading a national roundtable in climate change education
- developing and delivering national e-courses for teachers
- providing accelerator funding for climate change education projects in teacher education
- facilitating case studies that mobilize promising practices of climate change education across Canada

Helping learning spaces to flourish

National Education Nature Park – UK's Department for Education
The National Education Nature Park program was developed by the UK's Department for Education and the Natural History Museum. It aims to:

- embed nature-based learning in school curriculums
- encourage children and young people across the country to take action to improve their grounds for people and nature

By imagining the education estate as one big nature park, children and young people see how small actions can have a big impact on nature recovery. Participants also collaborate with scientists on pioneering research with data collected through the program. This provides vital information on the best ways to tackle the twin crises of climate change and biodiversity loss.

Learning by Nature project – BC Parks Foundation
This project is a unique provincial-federal-private partnership for nature learning. Students in British Columbia learn about climate change and biodiversity loss and take positive steps to mitigate them in BC's provincial parks, school grounds and classrooms.

Developing data and research

***From Awareness to Action: Canadians on Climate Change and Education (2025)* – Learning for a Sustainable Future**
This third national survey from Learning for a Sustainable Future tracks how Canadians' views on climate change and education have evolved since 2019 and 2022. The 2025 report highlights shifting public attitudes, current classroom practices and growing calls for deeper climate learning across Canada.

Powering Youth Environmental Literacy Through Networked Learning **– Cape Breton University**
Youth and teachers can provide their views of the impact and accessibility of environmental literacy. This project is open to schools in all provinces and territories in Canada, including

- rural, remote, northern and First Nations schools
- urban schools
- schools in communities with a heavy reliance on fossil fuels

Growing green communities

Les cours oasis – City of Paris, France
This project transforms school grounds into green, multi-functional spaces designed to mitigate the effects of climate change and enhance the well-being of the surrounding community. These grounds:

- provide relief from urban heat islands
- improve stormwater management
- provide students, their educators and the wider community spaces for recreation and education

Avatimik kamattiarniq (environmental stewardship) – Aqqiumavvik Society
This project will develop and pilot a culturally relevant, age-appropriate environmental literacy program to enhance avatimik kamattiarniq (the concept of environmental stewardship) for youth in Arviat, Nunavut.

Strengthening green skills

Treaty #3 Climate Education Program – Grand Council Treaty #3
This project will deliver place-specific knowledge and develop climate change skills for children and youth in Treaty 3 territory. It will help them to become climate leaders in their communities and participate in the emerging green economy. The program combines Western climate science and Anishinaabe traditional knowledge that is specific to Treaty #3. Learners of all ages will improve their understanding of the following:

- the relationship between human action and climate change
- place-specific environmental changes resulting from climate change
- best practices to adapt
- new science and Indigenous knowledge
- how to lead their communities to action
- the skills needed to find employment in the green jobs sector

Next steps

Implementation plan

ECCC is working with partners and stakeholders to develop an implementation plan. The plan will outline specific targets and assessment criteria to measure success. This will support updates to the Framework as needed. It will also allow Canada to better report on its progress on various domestic and international commitments, including but not limited to the following:

- 2022 to 2026 Federal Sustainable Development Strategy
- Canada's 2030 Nature Strategy: Halting and Reversing Biodiversity Loss in Canada
- Canada's National Adaptation Strategy
- Truth and Reconciliation Commission's Calls to Action
- Sustainable Jobs Plan
- UN Convention on the Rights of the Child

Forum for Environmental Education Leadership

The first Forum for Environmental Education Leadership took place in March 2025. It was co-convened by ECCC, the Canadian Commission for UNESCO and the Canadian Network for Environmental Learning and Communication to workshop a draft of this Framework. The 2026 Forum will build on efforts that are already underway by partners and stakeholders to workshop targets and progress measuring tools, as well as reporting mechanisms. This will help finalize the implementation plan.

Cyclical review and reporting

ECCC will also coordinate with partners to regularly update the Framework. The updates will be based on a review of reporting from the implementation plan, along with emerging research and best practices. ECCC will also be responsible for sharing Canada's progress on environmental learning based on the reporting requirements in various commitments.

Acknowledgements

ECCC would like to thank the many Canadians who participated in our national consultation and engagement on environmental education over the last four years. The input we received from organizations and stakeholders across Canada, and insights about the efforts being made by partners around the world, have been instrumental in developing this Framework.

With the current economic challenges and opportunities facing our country, Canada is well positioned to show leadership in environmental education over the next few years. We look forward to continuing to work together to implement this Framework.

Annexes

Annex 1: Canada's Commitments to Climate and Environmental Education

Domestic commitments

2022 to 2026 Federal Sustainable Development Strategy (FSDS)

- The FSDS outlines the Government of Canada's approach to achieving sustainable development in Canada, and aligns with the United Nations Sustainable Development Goals (SDGs). Relevant goals for environmental education include:
    - FSDS Goal 4 "Promote knowledge and skills for sustainable development". Knowledge and education are critical to increasing climate literacy and supporting climate action. Education is considered a primary driver of progress across all 17 SDGs.
    - FSDS Goal 13 "Take action on climate change and its impacts". This includes supporting SDG Target 13.3 to "improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.
- See International commitments, United Nations Sustainable Development Goals for more details.

Canada's 2030 Nature Strategy: Halting and Reversing Biodiversity Loss in Canada

- Also known as Canada's National Biodiversity Strategy and Action Plan, this strategy shows that Canada is working toward a national framework for environmental learning.
- To turn the tide on biodiversity loss, valuing nature, raising awareness and building capacity are needs to be addressed.
- Literacy, education and awareness raising are integrated into several targets:
    - Target 3: Conservation of at least 30% of land, waters and seas by 2030
    - Target 14: Mainstreaming of biodiversity values
    - Target 16 / 15b: Sustainable consumption
    - Target 19: Resource mobilization – Financial resources
    - Target 21: Knowledge sharing
    - Target 22: Inclusion of Indigenous Peoples, women/girls, youth/children, persons with disabilities, and environmental human rights defenders in decision making
- Reporting in terms of the Convention on Biological Diversity in February 2026.

Canada's National Adaptation Strategy

- Knowledge and understanding are a foundational objective: "Education, training and awareness raising are the main ways to communicate the need for incorporating adaptation into decisions and for taking urgent actions."
- One objective listed in the "economy and workers" section is: "Canada has a skilled, diverse, and adaptable workforce that is supported by education, training, knowledge and skills development to respond to future impacts of climate change, including within Indigenous and northern economies."

Truth and Reconciliation Commission's Calls to Action

- A framework for environmental learning supports several of the TRC's Calls to Action, and the following ones in particular:
    - Call 14: Indigenous language revitalization
    - Call 62.iii: funding to Aboriginal schools to use Indigenous knowledge and teaching methods in classrooms
    - Call 63.iii: building student capacity for intercultural understanding, empathy, and mutual respect

United Nations Declaration on the Rights of Indigenous Peoples Act and Action Plan (2023–2028)

- Released in 2023 and developed in consultation and cooperation with First Nations, Inuit and Métis from across Canada.
- The Action Plan presents priorities shared between Canada and the three Indigenous groups, and priorities between Canada and each of the Indigenous groups.
- Article 29 of the action plan identifies the environment as a shared priority area, with the goal of ensuring a Canada where:
    - Indigenous peoples enjoy the right to a healthy natural environment with Indigenous ways of knowing incorporated into the protection and stewardship of lands, waters, plants and animals.
    - Indigenous peoples play a central role on biodiversity conservation, water and environmental conservation, and climate change action planning, policy development and decision making.
    - Self-determined climate action is supported as critical to advancing Canada's reconciliation with Indigenous peoples.
- ECCC is the lead Government of Canada partner for implementing this priority area. We will implement this through a series of specific actions identified in the plan (actions 46 to 49).
- Education is also an important element of the action plan, and it is one of the specific priorities identified by First Nations, Inuit and Métis.

Act respecting the development of a national strategy to assess, prevent and address environmental racism and to advance environmental justice (Bill C-226)

- On June 20, 2024, private Member's bill C-226, an Act respecting the development of a national strategy to assess, prevent and address environmental racism and to advance environmental justice, became law.
- This bill requires the Government of Canada to have a strategy within two years of its coming into force. The strategy must promote efforts across Canada to advance environmental justice and to assess, prevent and address environmental racism. It could also include measures like possible amendments to federal laws, policies and programs.
- The National Framework for Environmental Learning further reinforces the need to address systemic barriers, promote climate justice and ensure environmental learning remains relational, hopeful and action oriented.

The Right to a Healthy Environment under the Canadian Environmental Protection Act, 1999

- In June 2023, the *Canadian Environmental Protection Act, 1999* (CEPA) was amended and modernized (see Bill S-5). The preamble states that the Government of Canada recognizes that

every individual in Canada has the right to a healthy environment, as provided under CEPA. ECCC must develop and publish an implementation framework by June 2025.

- The draft implementation framework for the Right to a Healthy Environment under the CEPA states, "Considering social factors in activities to address risks to the environment and human health, for example, a population may be disproportionately impacted by pollution due to differences in income and social status, gender, education and literacy, or other socioeconomic characteristics."
- The draft implementation framework also includes the procedural element of access to information. This helps individuals in Canada to:
    - make informed decisions about their and their communities' health and environment
    - understand how government decisions are made
    - hold governments accountable for those decisions
- The National Framework for Environmental Learning seeks to improve access to quality environmental education, which supports the Right to a Healthy Environment framework.

Environment and Climate Change Canada Science Strategy (2024 to 2029)

- ECCC has adopted the Policy on Scientific Integrity and the Open Science Action Plan to guide values for science and support public trust in federal science. Together, they aim to counter misinformation and disinformation, which the framework also seeks to address.

Environment and Climate Change Canada's Open Science Action Plan: 2021–2026

- Highlights knowledge mobilization as a way of connecting knowledge producers like researchers with knowledge users (for example, Canadians, provincial partners and non-governmental organizations).

Climate Science 2050 and the National Priorities for Climate Change Science and Knowledge Report

- Both commitments ensure broader public participation, improved access to ECCC experts and better preparation of future generations for jobs in the science field.
- Climate Science 2050 includes priorities in terms of knowledge synthesis and mobilization, which inform climate literacy.

Environment and Climate Change Canada's misinformation and disinformation strategy (in development)

- ECCC is developing a strategy to manage misinformation and disinformation related to the department's mandate. This work is related to meeting the Government of Canada's Policy on Communications and Federal Identity (section 4.1.13).
- Improved environmental literacy is expected to be part of the strategy to combat misinformation and disinformation.

2030 Emissions Reduction Plan

- Section 2.1.3: The Government is supporting the transition to a clean growth economy through the Climate Action and Awareness Fund.
    - This will support projects that help build capacity and raise awareness to reduce Canada's GHG emissions.
    - These include projects that will increase young Canadians' environmental literacy as part of the long-term solutions to tackle climate change.

- Section 2.12: Supporting commitments to prepare the workforce by ensuring workers have the skills and opportunities needed to thrive in a net-zero economy.
- In the public consultation, many noted the importance of increasing climate literacy.

Canada's Ocean Literacy Strategy (led by the Ocean Literacy Coalition)

- This strategy complements Canada's Oceans Protection Plan.
- It outlines a vision for collaborative action to ensure a healthy, sustainable and equitable relationship with the global ocean and Canada's waterways for future generations. Its objectives focus on increasing ocean knowledge, fostering ocean values and empowering ocean actions.
- Strengthening ocean education is one of its action streams.

Sustainable Jobs Plan and the ***Canadian Sustainable Jobs Act***

- Create mechanisms for the Government of Canada to effectively help Canadian workers and communities to shift to a low-carbon economy, while fostering the creation of a more sustainable, inclusive and prosperous future.
- The Act came into effect on June 20, 2024. It introduces guiding principles to inform collective work at the federal level to create an equitable and inclusive future that supports sustainable jobs, climate action and energy security.

International commitments

United Nations Sustainable Development Goals

- Goal 4: Quality education. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
    - Target 4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles…
    - Indicator 4.7.1: Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (*a*) national education policies; (*b*) curricula; (*c*) teacher education and (*d*) student assessment.
- Goal 13: Climate action. Take urgent action to combat climate change and its impacts.
    - Target 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.
    - Indicator 13.3.1: Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (*a*) national education policies; (*b*) curricula; (*c*) teacher education; and (*d*) student assessment.

Kunming-Montreal Global Biodiversity Framework

- Literacy, education and awareness-raising are integrated within several targets:
    - Target 3: Conservation of at least 30% of land, waters and seas by 2030
    - Target 14: Mainstreaming of biodiversity values
    - Target 16 / 15b: Sustainable consumption
    - Target 19: Resource mobilization – Financial resources
    - Target 21: Knowledge sharing
    - Target 22: Inclusion of Indigenous Peoples, women/girls, youth/children, persons with disabilities, and environmental human rights defenders in decision making
- Section K (22) recognizes the importance of communication, education and awareness for uptake of the framework.

- An emerging Global Plan of Action on Education for Biodiversity calls on parties to the framework to reinforce education as essential to successful biodiversity conservation and active global citizenship through National Biodiversity Strategies and Action Plans.

United Nations Convention on the Rights of the Child

- In Article 29 (e) states that Parties agree that the education of the child shall be directed to the development of respect for the natural environment.
- In 2022, the UN Committee on the Rights of the Child recommended that Canada:
    - "Strengthen awareness-raising among children, with the active participation of schools, on climate change and environmental health, including on relevant air quality and climate legislation, and ensure that children's views are systematically taken into account in developing policies and programs addressing climate change"

Action for Climate Empowerment

- This term was adopted to denote work under Article 6 of the United Nations Framework Convention on Climate Change (UNFCCC) and Article 12 of the Paris Agreement.
- To address the climate and environmental crises, Action for Climate Empowerment emphasizes the importance of:
    - education
    - training
    - public awareness
    - public participation
    - public access to information

Paris Agreement

- Article 12 calls for all signing countries to enhance climate change education.

UNESCO's Berlin Declaration on Education for Sustainable Development

- Emphasizes the significance of education for sustainable development (ESD) for everyone
- It identifies concrete challenges that the global community is facing and calls for changes that are urgently needed to fully integrate and strengthen ESD in all educational contexts.

The Baku Initiative on Human Development for Climate Resilience (endorsed by Canada at UNFCCC Conference of the Parties (COP) 29)

- The 12 actionable principles outlined aim to integrate human development (including education, health, social protection and job creation) into climate action, with special attention on children and youth.
- Each principle recognizes that education must empower individuals with the knowledge, skills and values needed to create sustainable solutions.

Organisation for Economic Co-operation and Development's Programme for International Student Assessment (PISA)

- OECD plans to include environmental literacy assessments in PISA 2029, a global benchmark for education.

- Canada has participated in PISA since its inception in 2000 through a partnership between the Council of Ministers of Education, Canada (CMEC) and Employment and Social Development Canada (ESDC).
    - All 10 provinces have participated in each assessment.
    - Approximately 20,000 Canadian students from about 800 schools have taken part in each PISA assessment, in either English or French.

Annex 2: Economic, health and other societal implications relevant to environmental education

Economic prosperity, transition to the green economy and green jobs/skills
A recent report by the World Bank noted that "global green transitions would require skilled workers for an estimated 100 million new jobs, up-skilled workers for most existing jobs, and re-skilled workers for another 78 million jobs which will disappear. However, these skills are missing."

In Canada, labour and skills shortages will create challenges for Canada's green economy and limit growth potential (Eco Canada, 2024; Smart Prosperity Institute, 2023; RBC, 2022). A 2022 RBC analysis also notes that Canada needs a nimble workforce "to keep pace with the rapid technological and operational changes driving the climate transition."

For example, Clean Energy Canada expects jobs in Canada's clean energy sector to grow by 3.4% each year over the next decade. That is nearly four times faster than the Canadian average (Sustainable Jobs Plan; Quantifying Canada's Clean Energy Economy).

Other analyses suggest that Canada's "clean economy" could create between 300,000 and 400,000 new jobs in Canada by 2030 (Smart Prosperity Institute 2023; RBC 2022). "Skills and workforce" was identified as an important economy-wide and enabling sector in Canada's pathway to reducing emissions by 2030 (2030 Emissions Reduction Plan).

Young people have also indicated that they want ambitious climate action in which youth and marginalized groups are central to the solution (2021 State of Youth Report consultations). Canadians, including youth, were consulted in 2022 to ensure that the shift to net-zero emissions will create sustainable jobs.

Many policy areas also align with the need for green skills and support for a greener economy, including the following:

- Federal Sustainable Development Strategy
- A Healthy Environment and a Healthy Economy
- 2030 Emissions Reduction Plan
- National Adaptation Strategy

Health
Environmental education includes improving access to nature. This is critical for healthy and resilient Canadians dealing with the impacts of extreme weather and rising eco-anxiety. It is so essential that it has given rise to the concept of access to nature as human right.

In Canada, many schools and childcare settings are not equipped to protect children and staff during extreme weather events. For example, extreme heat poses significant health risks that affect children's health and well-being, hindering their ability to learn. Left unaddressed, extreme heat in educational settings will worsen systemic inequities in housing, neighbourhood infrastructure and green spaces. This will contribute to an unequal burden of risk for children in communities affected by social and economic injustices.

Greening schoolyards/learning spaces is a proven adaptation strategy to partly addressing extreme heat. It is also a key focus area in the National Framework for Environmental Learning.

Mental health and the rise of eco-anxiety

Improving access to nature also addresses mental health issues, such as eco-anxiety and Nature-Deficit Disorder. The latter refers to the physical, psychological and cognitive costs of human alienation from nature. These are especially common among youth and under-represented groups (Associations between Nature Exposure and Health: A Review of the Evidence, PMC)

A study by Lakehead University surveyed 1,000 young people (aged 16 to 25) across Canada. It found that:

- young Canadians are experiencing a diversity of challenging climate emotions
- At least 56% of respondents reported feeling afraid, sad, anxious and powerless
- 78% reported that climate change impacts their overall mental health
- 37% reported that their feelings about climate change have a negative impact on daily functioning
- respondents rated government responses to climate change negatively and reported greater feelings of betrayal than of reassurance
- 1/3 of participants feel ignored or dismissed when they try to talk about climate change
- 71% believe that we can do something about the climate crisis if we work together

Data also illustrates that climate change contributes to young people's negative perceptions about their future. For example:

- 39% of respondents report hesitation about having children due to climate change
- 73% report thinking that the future is frightening
- 76% report that people have failed to take care of the planet

The data show that young Canadians need diverse coping supports. They also believe the formal education system should be doing more to support them.

Research further shows that youth in Canada, particularly women, experience more negative emotions about climate change than older adults. These emotions include anger and anxiety (Program of Applied Research on Climate Action in Canada, 2022).

Academic achievement and broader student success

A Stanford University analysis of 119 peer-reviewed studies published over a 20-year period measured the impacts of environmental education on K-12 students. It found that environmental education has had a number of positive impacts:

- knowledge gains across multiple disciplines, including environmental issues, science, math and more
- emotional and social skills, such as self-esteem, character development, teamwork and leadership skills
- environmentally friendly behaviour, such as reducing water use, increasing recycling and participating in community cleanups
- academic skills (21st century skills), such as critical thinking, oral communication, analytical skills, problem solving and higher-order thinking
- motivation to learn, including enthusiasm for and interest in school
- civic interest and engagement, including feelings of civic responsibility, feelings of empowerment and ability to take action

Environmental education will also become a benchmark of academic excellence. Climate literacy will be integrated into the 2029 Programme for International Student Assessment (PISA) that Canada participates in. PISA is an international test created by the Organisation for Economic Co-operation and

Development (OECD) that measures 15-year-old students' abilities in reading, mathematics and science.

PISA results help countries track their students' performance over time to view trends and assess skills and knowledge. These can also inform how prepared students are for continuing studies or entering the workforce.

At the 29th Conference of the Parties (COP) to the United Nations Framework Convention on Cimate Change (UNFCCC) , OECD announced that climate literacy will be included in the world's leading educational benchmark from 2029. In Canada, approximately 25,000 15-year-old students in Canada were selected at random from 1,100 schools across all 10 provinces to participate in the assessment.

Misinformation and disinformation

The spread of misinformation and disinformation about climate change and environmental degradation is rampant. It can erode public trust in institutions and seriously undermine ECCC's ability to effectively transfer knowledge and motivate climate change action by individuals.

Evidence shows that misinformation causes harm. Work is needed to invest in science-based, evidence-informed communications on climate change. Stronger environmental education is critical to addressing the negative impacts of misinformation and disinformation, and avoiding exploitation by actors who seek to undermine scientific integrity.

Emergency and disaster preparedness

Data shows that the cost of weather-related disasters is rising. 2024 was the costliest year for severe weather-related losses in Canada. One in five Canadians is extremely or very concerned about weather-related emergencies or natural disasters (2022 Statistics Canada findings).

Youth are an underused demographic in terms of their human and creative capital, civic engagement and employment capabilities. Mobilizing youth further could advance our disaster agenda (More than a checkbox: engaging youth in disaster risk reduction and resilience in Canada; Youth Are Our Future Assets in Emergency and Disaster Management).

In addition, advancing energy literacy will assist with more equitable energy, transit, construction and environmental planning by and for communities, businesses and governments. A national framework for environmental learning that focuses on K–12 youth can support better disaster preparedness within Canada.