



Government
of Canada

Gouvernement
du Canada

e Development Strategy

Canada



2023 to 2027 Departmental Sustainable Development Strategy

Polar Knowledge Canada

Cat. No.: R101-8E-PDF

ISSN: 2817-4739

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Executive Summary

We are proud to present the 2023-2027 Departmental Sustainable Development Strategy from Polar Knowledge Canada (POLAR), an organization driven by pride and dedication to polar science and research. At POLAR, we champion sustainable development, and ensure the satisfaction of current needs while preserving the ability of future generations to meet their own.

POLAR actively contributes to evidence-based solutions for sustainable development in the North, as we strive to enhance economic opportunities, environmental stewardship, and the overall quality of life for residents and all Canadians. We firmly believe that collaboration among government institutions is essential for effective sustainable development, and we are fully committed to supporting Canada's vision in this regard.

As mandated by the *Federal Sustainable Development Act*, POLAR has developed its own Departmental Sustainable Development Strategy. This strategy serves as a roadmap, outlining our unique contributions to the Federal Sustainable Development Strategy. It provides a comprehensive understanding of how we currently incorporate and will continue to integrate sustainable development principles into our research, knowledge dissemination, and operational activities.

POLAR's unwavering commitment to sustainable development aligns us with the national agenda, and we look forward to making significant contributions to a sustainable future for all.

SECTION 1

Introduction to the Departmental Sustainable Development Strategy

The [2022 to 2026 Federal Sustainable Development Strategy \(FSDS\)](#) presents the Government of Canada's sustainable development goals and targets, as required by the [Federal Sustainable Development Act](#). This is the first Federal Sustainable Development Strategy to be framed using the 17 Sustainable Development Goals of the United Nations 2030 Agenda and provides a balanced view of the environmental, social and economic dimensions of sustainable development.

In keeping with the purpose of the Act, to make decision-making related to sustainable development more transparent and accountable to Parliament, Polar Knowledge Canada (POLAR) supports the goals laid out in the Federal Sustainable Development Strategy through the activities described in this Departmental Sustainable Development Strategy.

The [Federal Sustainable Development Act](#) also sets out [7 principles](#) that must be considered in the development of the Federal Sustainable Development Strategy as well as



Departmental Sustainable Development Strategy. These basic principles have been considered and incorporated in POLAR's Departmental Sustainable Development Strategy.

In order to promote coordinated action on sustainable development across the Government of Canada, this departmental strategy integrates efforts to advance Canada's implementation of the 2030 Agenda National Strategy, supported by the Global Indicator Framework (GIF) and Canadian Indicator Framework (CIF) targets and indicators. The strategy also now captures Sustainable Development Goal initiatives that fall outside the scope of the Federal Sustainable Development Strategy to inform the development of the Canada's Annual Report on the 2030 Agenda and the Sustainable Development Goals.

SECTION 2

POLAR's Sustainable Development Vision

Goal 2- Support a healthier and more sustainable food system

POLAR's Science and Technology Framework explores the connections between northern community wellness and environmental health, including how changes in the environment affect food security. Towards this end, POLAR's "One Health" program undertakes community-led research on abundance and diversity of country foods (i.e. caribou, muskox, etc.) and their predators—including their habitats and how these changes affect food security and wellness. Additionally, the program research on diseases in northern wildlife, including impacts on country foods. This research enhances POLAR's understanding of the effects of climate change on community wellness.

By undertaking efforts to promote northern food security through research, POLAR also supports the Sustainable Development Goal 10: *Zero Hunger* which aims to create a world free of hunger by 2030. Additionally, it supports the Canadian 2030 Agenda National Strategy ambition to ensure that Canadians have access to sufficient, affordable, and nutritious food.

Goal 4- Promote knowledge & skills for sustainable development

POLAR is dedicated to advancing knowledge of the Canadian Arctic to improve economic opportunities, environmental stewardship, and the quality of life of its residents and all other Canadians. Guided by its Science and Technology Framework, POLAR focuses on the following key objectives: (1) improve knowledge of dynamic northern terrestrial, freshwater and marine ecosystems in the context of rapid change; (2) increase understanding of the connections between northern community wellness and environmental health; (3) and advance energy, technology, and infrastructure solutions for the unique environmental, social, and cultural conditions in the North. Through domestic and international knowledge collaborations, POLAR seeks to foster knowledge exchanges and partnerships in polar science and technology to address regional and circumpolar development issues. Additionally, POLAR invests

in the next generation of Canadian polar researchers as it supports students in technical, science and research programs, through funding initiatives like the Northern Scientific Training Program and its Fellowship Program. Notably, POLAR supports meaningful inclusion of Indigenous traditional knowledge in research to inform organizational policies and decisions.

These efforts align with the Sustainable Development *Goal 4: Quality Education* and the Canada 2030 Agenda National Strategy's commitment to inclusive and accessible education throughout Canadians' lives.

Goal 7 – Increase Canadians’ Access to Clean Energy

Renewable energy research is a top priority for POLAR due to the heightened vulnerability of Arctic communities to the impacts of global warming. Recognizing the importance of clean energy sources in mitigating these effects, POLAR actively engages in testing and demonstrating clean energy solutions, including energy storage, biofuels, and advanced renewable technologies. Through collaborations with industry, government, and academia, POLAR assesses the suitability of these solutions for remote northern communities, supporting both pre-commercial and commercially available technologies. Noteworthy efforts include POLAR’s partnership with the National Research Council to test a small off-grid wind turbine at the Canadian High Arctic Research Station, as well as the collaboration with Natural Resources Canada to evaluate experimental solar panels on the Main Research Building. These technological advancements hold great potential to substantially reduce the environmental impact of human activities in remote communities, increasing their resilience by way of diversified power sources. Furthermore, POLAR's commitment to developing a Community Energy Plan for Cambridge Bay, backed by funding from CIRNAC Northern Reach, demonstrates further progress towards sustainable energy practices.

By testing wind and solar projects for northern suitability, POLAR actively contributes to the achievement of Sustainable Development *Goal 7: Affordable and Clean Energy*, and aligns with the Canada 2030 Agenda National Strategy's objective of reducing energy consumption among Canadians.

Goal 9 - Foster Innovation and green infrastructure in Canada

In line with Goal 3 of its Science and Technology Framework, POLAR is dedicated to enhancing waste and wastewater treatment in northern communities through the adoption of new and emerging technologies. These innovations aim to reduce waste, promote sustainable practices, and alleviate pressure on landfills while improving water quality. Notable initiatives include the experimentation with the Terragon Micro Automated Gasification System (MAGS), which converts household waste into heat and synthetic natural gas for electricity generation. Additionally, POLAR collaborates with the National Research Council to test the Bioelectrical Anaerobic Sewage Treatment System (BeAST), which harnesses heat and potentially produces biofuel from sewage. POLAR also actively facilitates the development of environmentally-friendly, culturally-adapted homes that employ sustainable materials and the capacity available within communities.

As POLAR undertakes activities to foster innovation and green infrastructure in Canada, it advances the Sustainable Development Goal 9: *Industries, Innovation and Infrastructure*, which seeks to build resilient infrastructure, promote sustainable industrialization and encourage innovation. It likewise supports the Canada 2030 Agenda National Strategy ambition for Canada to foster sustainable research and innovation, and for Canadians to have access to modern and sustainable infrastructure.

Goal 10 – Advance reconciliation with Indigenous Peoples and take action to reduce inequality

POLAR is committed to reconciliation with Indigenous Peoples by through inclusive decision-making process that aim to create a cleaner, greener future. POLAR's Science and Technology (S&T) Framework is underpinned by meaningful engagement and consultation with Indigenous partners to co-develop the Framework's Implementation Plan and deliver on its implementation. The organization also seeks to build capacity for community-based monitoring and northern-led research among Indigenous and local knowledge holders, while incorporating Indigenous knowledge into scientific findings. Partnerships with Inuit Tapiriit Kanatami and the Gwich'in Tribal Council have been established to further these goals.

The Agency continues to support Inuit staff in pursuing post-secondary education through the Pilimmaksaivik Education Support Fund. These efforts will increase representation of Indigenous persons in mid-level and senior roles at POLAR in the future. Presently, POLAR has met and surpassed workforce availability for Indigenous Peoples as outlined in the most recent Census (2016) and the Canadian Survey on Disability (2017).

Through its efforts to advance reconciliation with Indigenous peoples and take action to reduce inequality, POLAR makes progress on the Sustainable Development Goal 10: *Reduced Inequalities*, which aims to globally decrease inequalities and ensure that no one is left behind. It also supports the realization Canada's 2030 National Agenda Strategy priority to ensure that Canadians live free of discrimination and that inequalities are reduced.

Goal 12 - Reduce waste and transition to zero emission vehicles

POLAR promotes sustainable development by integrating environmental considerations into its procurement decision-making process. The Agency deploys common-use procurement instruments available through Public Services and Procurement Canada that prioritize environmental factors whenever possible. Moreover, POLAR consistently incorporates environmental considerations into procurement management processes and controls, including the inclusion of a Green Procurement option and information guide in contracting request templates. The organization is committed to strengthening its support for green procurement by providing training and raising awareness among decision makers, material management experts, and procurement specialists. Currently, all POLAR procurement specialists are trained in Green Procurement criteria and processes.

Through its dedication to waste reduction, POLAR advances the Sustainable Development Goal 12: *Responsible Consumption and Production*, which aims to ensure sustainable consumption and production patterns. In doing so, POLAR also encourages progress on the Canada 2030 Agenda National Strategy ambition of ensuring that Canadians consume in a sustainable manner.

Goal 13- Take action on climate change and its impacts

The Canadian High Arctic Research Station is meticulously designed to achieve Silver-level certification in the Leadership in Energy and Environmental Design (LEED) program. To attain this recognition, the facility adheres to the Labs21 Environmental Performance Criteria—a program dedicated to promoting sustainable, high-performance, and energy-efficient laboratories. Notable sustainable features of the facility include bike racks, low flow plumbing fixtures, continuous monitoring of building systems, effective wastewater and waste management, light pollution management, energy reduction measures, and a commitment to maintaining excellent air quality.

Through its proactive stance on climate change and its impacts, POLAR contributes to the advancement of Sustainable Development Goal 13: Climate Action, which entails urgent measures to combat climate change and its far-reaching consequences. Moreover, these efforts align with the aspirations of the Canada 2030 Agenda National Strategy to ensure that Canadians reduce their greenhouse gas emissions, and that Canadians are well-equipped and resilient to face the effects of climate change.

Goal 15 – Protect and Recover Species, Conserve Canadian Biodiversity

POLAR, guided by Goal 1 of its Science and Technology Framework, is committed to advancing knowledge of dynamic northern terrestrial, freshwater, and marine ecosystems to safeguard Canadian biodiversity amidst the challenges of rapid climate change. Achieving this objective involves gathering baseline information on these ecosystems, closely monitoring ecosystem changes, and disseminating knowledge and data to national and international networks as well as local, regional, and national decision-makers.

A recent milestone for POLAR is the signing of a Letter of Agreement with the Canadian Museum of Nature. This collaboration secures funding and in-kind field services worth \$1 million over three years to support researchers in collecting crucial baseline information on ecosystems. This funding will enable research on: (1) the impacts of climate change on population dynamics and the abundance cycles of small mammals and the impact on other wildlife; (2) the vulnerability of Arctic plant species with different life history traits and flowering times in a warming climate; and (3) the establishment of baseline data on marine biodiversity and distribution, specifically Arctic fish and seaweed.

POLAR's efforts to better understand biodiversity in the North align with Sustainable Development *Goal 15: Life on Land*, which aims to protect, restore, and promote sustainable use of terrestrial ecosystems, halt biodiversity loss, and preserve the vitality of all species. These endeavors also contribute to the Canada 2030 Agenda National Strategy ambition to ensure all species in Canada have healthy and viable populations.

SECTION 3

Listening to Canadians

As required by the *Federal Sustainable Development Act*, POLAR has considered comments on the draft 2022-2026 Federal Sustainable Development Strategy made during the public consultation held from March 11 to July 9, 2022. During the public consultation, more than 700 comments were received from a broad range of stakeholders, including governments, Indigenous organizations, non-governmental organizations, academics, businesses, and individual Canadians in different age groups and of various backgrounds. The draft Federal Sustainable Development Strategy was also shared with the appropriate committee of each House of Parliament, the Commissioner of the Environment and Sustainable Development, and the Sustainable Development Advisory Council for their review and comment.

What We Heard

Across the submissions received, POLAR identified sustainable development priorities and issues that implicate our department. It was recognized that Indigenous knowledge and cultural traditions should be integrated into Federal Sustainable Development Strategy targets, milestones, and implementation strategies, particularly on circular economy, water management, wildlife and marine conservation, and stewardship of green spaces in traditional territories. Additionally, the importance of recognizing Indigenous self-governance and support for Indigenous ownership and leadership in projects involving renewable energy and conservation was identified. There was also a call for increased research and action to support climate resiliency for marginalized communities who are the first to feel the impacts of climate change and related issues such as access to clean water and air pollution. Finally, enhanced Indigenous, and northern food security was identified as a key priority.

What We Did

POLAR took the above-mentioned key priorities and issues into consideration in this Departmental Sustainable Development Strategy. POLAR's planned departmental actions flow from the organization's raison d'être to advance reconciliation with Indigenous Peoples and enhance living conditions in the north. These efforts are accomplished by working towards a cleaner and greener future through collaborative efforts with Indigenous partners, which allow the integration of traditional and local Indigenous knowledge and perspectives in POLAR's decision-making. Additionally, POLAR's mission promotes economic development and job creation for Indigenous Peoples in the North, who are disproportionately affected by the impacts of climate change. Therefore, the planned actions set out in POLAR's Departmental Sustainable Development Strategy support the increased integration of Indigenous knowledge and traditions, Indigenous ownership over POLAR projects, and enhanced northern security against climate threats, as advocated by the Canadian public.

Please find more information on the Federal Sustainable Development Strategy public consultation and its results in the [Federal Sustainable Development Strategy Consultation Report](#)

SECTION 4

POLAR's Commitments





GOAL 2: SUPPORT A HEALTHIER AND MORE SUSTAINABLE FOOD SYSTEM

Context:

POLAR's Science and Technology Framework promotes understanding of how changes in the environment impact food security and the wellness of northern communities. Through its One Health program, POLAR conducts community-led research on country foods, their predators, and habitats, as well as diseases in northern wildlife. This research enhances their understanding of climate change effects on community wellness and supports efforts to promote northern food security.

Implementation strategies supporting the goal

This section is for implementation strategies that support the goal “**Support a healthier and more sustainable food system**” but not a specific Federal Sustainable Development Strategy target

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA’S 2030 AGENDA NATIONAL STRATEGY AND SDGS
Enhance Indigenous and northern food security	<p>Action: Monitor and better understand the effects of diseases in wildlife population and environmental changes on food security and community wellness</p> <p>Program: Science and Technology</p>	<p>Performance indicator: Number of initiatives listed in POLAR’s Departmental Work Plan that seek to monitor, and better understand the effects of diseases in wildlife population, and environmental changes on food security, and community wellness</p>	<p>Summary: Efforts to understand the effects of wildlife diseases and environmental changes on wildlife paves the way for long-term food security domestically.</p>

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA’S 2030 AGENDA NATIONAL STRATEGY AND SDGS
		<p>Starting point: 1 initiative in 2023-24</p> <p>Target: 2 initiatives in 2024-25</p>	<p>Relevant targets or ambitions:</p> <p><i>CIF Ambition/Target:</i> 2.1- Canadians have access to sufficient, affordable and nutritious food</p> <p><i>CIF Indicator:</i> 2.1.1- Prevalence of food insecurity</p> <p><i>GIF Target:</i> 2.1- By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round</p>



GOAL 4: PROMOTE KNOWLEDGE AND SKILLS FOR SUSTAINABLE DEVELOPMENT

Context:

Polar Knowledge Canada (POLAR) supports this goal by advancing knowledge of the Canadian Arctic and other circumpolar regions through scientific research and knowledge creation, dissemination, and mobilization activities. POLAR's Science and Technology Framework guides its research activities to improve knowledge of ecosystems, increase understanding of community wellness and environmental health connections, and advance energy, technology, and infrastructure solutions. POLAR shares its research outcomes through publications, events, and partnerships with various organizations, and engages in research collaboration to address regional and circumpolar development issues. Additionally, the organization supports youth skill development for the next generation of polar researchers through its Grants and Contributions Programs. By building and maintaining partnerships and incorporating Indigenous traditional knowledge in research, POLAR advances sustainable development and quality education goals.

Implementation strategies supporting the goal

This section is for implementation strategies that support the goal **“Promote knowledge and skills for sustainable development”** but not a specific Federal Sustainable Development Strategy target

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS
Support knowledge in the Arctic and Antarctic	Action #1: Ensure that Canada's polar science and technology research is publicly available and being applied. Program: Science and Technology and Knowledge Management and Engagement	Performance indicator #1: Percentage of research publications led or supported by Polar Knowledge Canada that are available online to the Canadian public. Starting point: X% of research publications led or supported by POLAR that are available to the Canadian public in 2022-23 Target: At least 30% by March 2025	Summary: Dissemination of polar science and technology research improves access to scientific information, fosters collaboration, transfers expertise, and translates research into actionable solutions for sustainable development. Relevant targets or ambitions: <i>CIF Ambition/Target:</i> N/A <i>CIF Indicator:</i> N/A <i>GIF Target:</i> 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.
		Performance indicator #2: Number of citations of research led or supported by Polar Knowledge Canada Starting point: X number of citations of research led or supported by POLAR in 2022-23 Target: At least 100 by March 2025	
		Performance indicator #3: Number of POLAR-led or supported materials which communicate or synthesize research results for the public (Science and Technology Program) Starting point: X number of POLAR-led or supported materials which communicate or synthesize research results for the public in 2022-23 Target: At least 100 by March 2025	



GOAL 7: INCREASE CANADIANS' ACCESS TO CLEAN ENERGY

Context:

POLAR prioritizes renewable energy research to address the vulnerability of Arctic communities to global warming. It supports the testing and demonstration of clean energy solutions by industry, government, and academia. This includes collaborating with the National Research Council to test off-grid wind turbines and evaluate experimental solar panels at the Canadian High Arctic Research Station. These technologies aim to reduce the environmental impact in remote communities. Additionally, POLAR is involved in developing a Community Energy Plan for Cambridge Bay, funded by CIRNAC Northern Reach.

Target theme: Renewable and non-emitting sources of electricity

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

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS
Invest in research, development and demonstration of clean energy technologies	<p>Action: Facilitate the development and testing of energy technologies suitable for the unique environmental and socio-cultural conditions in the North.</p> <p>Program: Science and Technology</p>	<p>Performance Indicator: Number of initiatives listed in POLAR's Departmental Work Plan which seek to develop and test energy technologies suitable for the North.</p> <p>Starting point: 1 initiative in 2023-24</p> <p>Target: 2 initiatives in 2024-25</p>	<p>Summary: Enabling the development and testing of energy technologies in the North contributes to long-term access to clean, affordable, and reliable energy in Canada.</p> <p>Relevant targets or ambitions: <i>CIF Ambition/Target:</i> 7.2- Canadians reduce their energy consumption <i>CIF Indicator:</i> 7.2- N/A <i>GIF Target:</i></p> <p>7.1- By 2030, ensure universal access to affordable, reliable and modern energy services</p> <p>7.3.a- By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.</p>



GOAL 9: FOSTER INNOVATION AND GREEN INFRASTRUCTURE IN CANADA

Context:

POLAR aims to enhance waste and wastewater treatment in northern communities by developing new technologies that reduce waste and promote sustainability. This includes waste-to-energy, grey and black water management, green housing, and recycling initiatives. Notably, POLAR has tested the Terragon Micro Automated Gasification System (MAGS) to convert household waste into heat and synthetic natural gas for electricity generation. The agency has also collaborated with the National Research Council to evaluate the Bioelectrical Anaerobic Sewage Treatment System (BeAST) that produces heat and potential bio-fuels from sewage. Additionally, POLAR facilitates the development of affordable, culturally adapted homes using sustainable materials, contributing to green infrastructure in the North.

Implementation strategies supporting the goal

This section is for implementation strategies that support the goal “**Foster innovation and green infrastructure in Canada**” but not a specific Federal Sustainable Development Strategy target

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS
Develop our knowledge of clean technologies	<p>Action: Undertake the development and testing of housing, water and waste treatment technologies</p> <p>Program: Science and Technology</p>	<p>Performance indicator: Number of initiatives listed in POLAR's Departmental Workplan that support the development and testing of housing, water, and waste treatment technologies.</p> <p>Starting point: 1 initiative in 2023-24</p> <p>Target: 2 initiatives in 2024-25</p>	<p>Summary: The development and testing of housing, water, and waste treatment technologies drive the adoption of sustainable practices, promoting resource efficiency, and fostering environmental stewardship.</p> <p>Relevant targets or ambitions: <i>CIF Ambition/Target:</i> 9.1- Canada fosters sustainable research and innovation</p> <p>9.3- Canadians have access to modern and sustainable infrastructure</p> <p><i>CIF Indicator:</i> 9.1.1- Proportion of innovation in environment-related technology</p> <p><i>GIF Target:</i> 9.1- Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all</p>



GOAL 10: ADVANCE RECONCILIATION WITH INDIGENOUS PEOPLES AND TAKE ACTION ON INEQUALITY

Context:

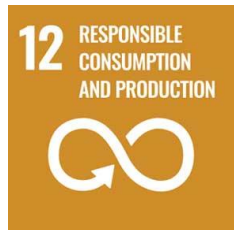
POLAR is committed to reconciliation with Indigenous Peoples by engaging in sustained and collaborative efforts that promote economic development and job creation. Through its Science and Technology Framework, POLAR engages with Indigenous partners in a meaningful way, build capacity for community-based monitoring and research, and integrate Indigenous knowledge with scientific findings. Additionally, POLAR prioritizes projects that include Indigenous and local knowledge, and supports the economic wellbeing of Inuit employees through its Inuit Employment Plan and education support fund. Simultaneously, the Canadian High Arctic Research Station works to create employment opportunities for local people and boost economic development in Nunavut by prioritizing and reinforcing local Inuit businesses and organizations.

Target theme: Advancing reconciliation with First Nations, Inuit, and the Métis communities.

Target: Between 2023 and 2026, and every year on an ongoing basis, develop and table annual progress reports on implementing *the United Nations Declaration on the Rights of Indigenous Peoples Act* (Minister of Justice and Attorney General of Canada)

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS
Implement the <i>United Nations Declaration on the Rights of Indigenous Peoples Act</i>	<p>Action #1: Ensure that Canada's Arctic science includes Indigenous knowledge</p> <p>Program: Science and Technology</p>	<p>Performance indicator: Percentage of Arctic research projects led or supported by Polar Knowledge Canada that include Indigenous or local knowledge</p> <p>Starting point: 90% of Arctic research projects led or supported by Polar Knowledge Canada that include Indigenous or local knowledge in 2022-23</p> <p>Target: At least 90% by March 2025</p>	<p>Summary: Ensuring that Indigenous knowledge is incorporated in Arctic science and decision-making advances reconciliation with Indigenous peoples and supports the implementation of the United Nations Declaration on the Rights of Indigenous Peoples Act.</p> <p>Relevant targets or ambitions:</p> <p><i>CIF Ambition/Target:</i> 10. 1- Canadians live free of discrimination and inequalities are reduced.</p> <p><i>CIF Indicator:</i> N/A</p> <p><i>GIF Target:</i> 10.2 - By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status</p> <p>10.3 - Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard</p>

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS
	<p>Action #2: Increase Indigenous representation among POLAR employees.</p> <p>Program: Human Resources</p>	<p>Performance indicator: % of active employees self-identifying as Indigenous Persons at POLAR</p> <p>Starting point: 27.5% of active employees self-identifying as Indigenous Persons at POLAR in 2023-24</p> <p>Target: 30% of active employees self-identifying as Indigenous Persons at POLAR in 2024-25</p>	<p>Summary: Increasing the number of Indigenous employees at POLAR advances reconciliation with Indigenous peoples and supports the implementation of the United Nations Declaration on the Rights of Indigenous Peoples Act.</p> <p>Relevant targets or ambitions: CIF Ambition/Target: 10. 1 Canadians live free of discrimination and inequalities are reduced.</p> <p><i>CIF Indicator:</i> N/A</p> <p><i>GIF Target:</i> 10.2 - By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status</p> <p>10.3 - Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard</p>



GOAL 12: REDUCE WASTE AND TRANSITION TO ZERO-EMISSION VEHICLES

Context:

POLAR implements the *Policy on Green Procurement* by deploying common use procurement instruments and integrating environmental considerations into its procurement management processes; integrating environmental considerations into procurement management processes and controls; and reviewing its contracting templates to ensure alignment with the Policy. POLAR also aims to render its green procurement processes more robust by ensuring that necessary parties continuously have the necessary training and awareness to support green procurement.

To reduce waste, POLAR's Canadian High Arctic Research station has systems in place for wastewater and waste management. Notably, POLAR treats its wastewater with a reverse osmosis system which produces large amount of clean water. POLAR is also seeking collaborative efforts to transform wastewater into hydrogen, and to treat the sewage lagoon in Cambridge Bay.

Target: The Government of Canada's procurement of goods and services will be net-zero emissions by 2050, to aid the transition to a net-zero, circular economy (All Ministers)

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS
Strengthen green procurement criteria	<p>Action #1: Ensure all procurement and materiel management specialists are trained in green procurement (such as, the Canada School of Public Service course on green procurement, or equivalent) within one year of being identified</p> <p>Program: Internal Service/Procurement</p>	<p>Performance indicator: % of procurement and materiel management specialists trained in green procurement within one year of being identified.</p> <p>Starting point: 100% of procurement and materiel management specialists trained in green procurement in 2023-24</p> <p>Target: Maintain 100% training rate for procurement officers and material management specialists in 2024-25.</p>	<p>Summary: Green procurement incorporates environmental considerations into purchasing decisions and is expected to motivate suppliers to reduce the environmental impact of the goods and services they deliver, and their supply chains.</p> <p>Relevant targets or ambitions: <i>CIF Ambition/Target:</i> Canadians consume in a sustainable manner</p>
	<p>Action #2: Integrate Green Procurement option and information guide within contracting request form.</p> <p>Program: Internal Service/Procurement</p>	<p>Performance indicator: % of contracting request forms that include Green Procurement requirement and information guide.</p> <p>Starting point: 100 % of contracting request forms include green procurement option in 2023-24</p> <p>Target: Maintain 100% of contracting request form with green procurement option in 2024-25</p>	<p><i>CIF Indicator:</i> 12.2.1 Proportion of businesses that adopted selected environmental protection activities and management practices</p> <p><i>GIF Target:</i> Promote public procurement practices that are sustainable, in accordance with national policies and priorities</p>



GOAL 13: TAKE ACTION ON CLIMATE CHANGE AND ITS IMPACTS

Context:

POLAR takes proactive steps to transition to zero-emission vehicles and takes steps towards reducing waste and promoting sustainability practices in its operations. This includes the use of electric or hybrid vehicles. Additionally, the Canadian High Arctic Research Station has been designed for silver-level certification in Leadership in Energy and Environmental Design (LEED) through such features as solar panels to facilitate the testing of photovoltaics (solar panels) in the Arctic, low-flow plumbing fixtures, innovative wastewater and waste management, light pollution reduction, energy conservation technology, and other features.

Target theme: Federal Leadership on Greenhouse Gas Emissions Reductions and Climate Resilience

Target: The Government of Canada will transition to net-zero carbon operations for facilities and conventional fleets by 2050 (All Ministers)

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS
<p>Implement the Greening Government Strategy through measures that reduce greenhouse gas emissions, improve climate resilience, and green the government's overall operations</p>	<p>Action: Ensure all relevant employees are trained on assessing climate change impacts, undertaking climate change risk assessments, and developing adaptation actions within one year of being identified</p> <p>Program: Internal Services</p>	<p>Performance indicator: Percentage of relevant employees trained on assessing climate change impacts, undertaking climate change risk assessments, and developing adaptation actions within one year of being identified</p> <p>Starting point: New Program</p> <p>Target: 100% trained by 2024-25</p>	<p>Summary: Trained staff can identify risk to critical program delivery, and develop responses to increase the resilience of operations to impacts of climate change.</p> <p>Relevant targets or ambitions: <i>CIF Ambition/Target:</i> 13.3 Canadians are well-equipped and resilient to face the effects of Climate change</p> <p><i>CIF Indicator:</i> 13.3.1 Proportion of municipal organization who factored climate change adaptation into their decision-making process</p> <p><i>GIF Target:</i> 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</p> <p>13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p>



GOAL 15: PROTECT AND RECOVER SPECIES, CONSERVE CANADIAN BIODIVERSITY

Context:

POLAR advances understanding of northern ecosystems to help Canadian biodiversity in the face of climate change. It collects baseline data and monitors changes in terrestrial, freshwater, and marine ecosystems. Knowledge and results are shared with decision makers and networks to support conservation and adaptation. Recently, POLAR has partnered with the Canadian Museum of Nature, providing \$1 million over three years to advance research on climate impacts on wildlife, Arctic plant species, vulnerability, and marine biodiversity.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA’S 2030 AGENDA NATIONAL STRATEGY AND SDGS
Other	<p>Action: Undertake research, remote sensing and environmental monitoring of permafrost, and biodiversity changes in the Kitikmeot Environmental Research Area with the collaboration of partners.</p> <p>Program: Science and Technology</p>	<p>Performance indicator: Number of initiatives listed in POLAR’s Annual Departmental Work Plan which seek to undertake research, remote sensing and environmental monitoring of permafrost, and biodiversity change.</p> <p>Starting point: 1 initiative in 2023-24</p> <p>Target: 2 initiatives in 2024-25</p>	<p>Summary: Canadian research and monitoring of Arctic biodiversity changes protect Canadian biodiversity by providing crucial data on climate change impacts, and guiding conservation efforts for vulnerable species and habitats.</p> <p>Relevant targets or ambitions: <i>CIF Ambition/Target:</i> 15.1- Canada ensures all species have healthy and viable populations.</p> <p>15.3- Canada conserves and restores ecosystems and habitat</p>

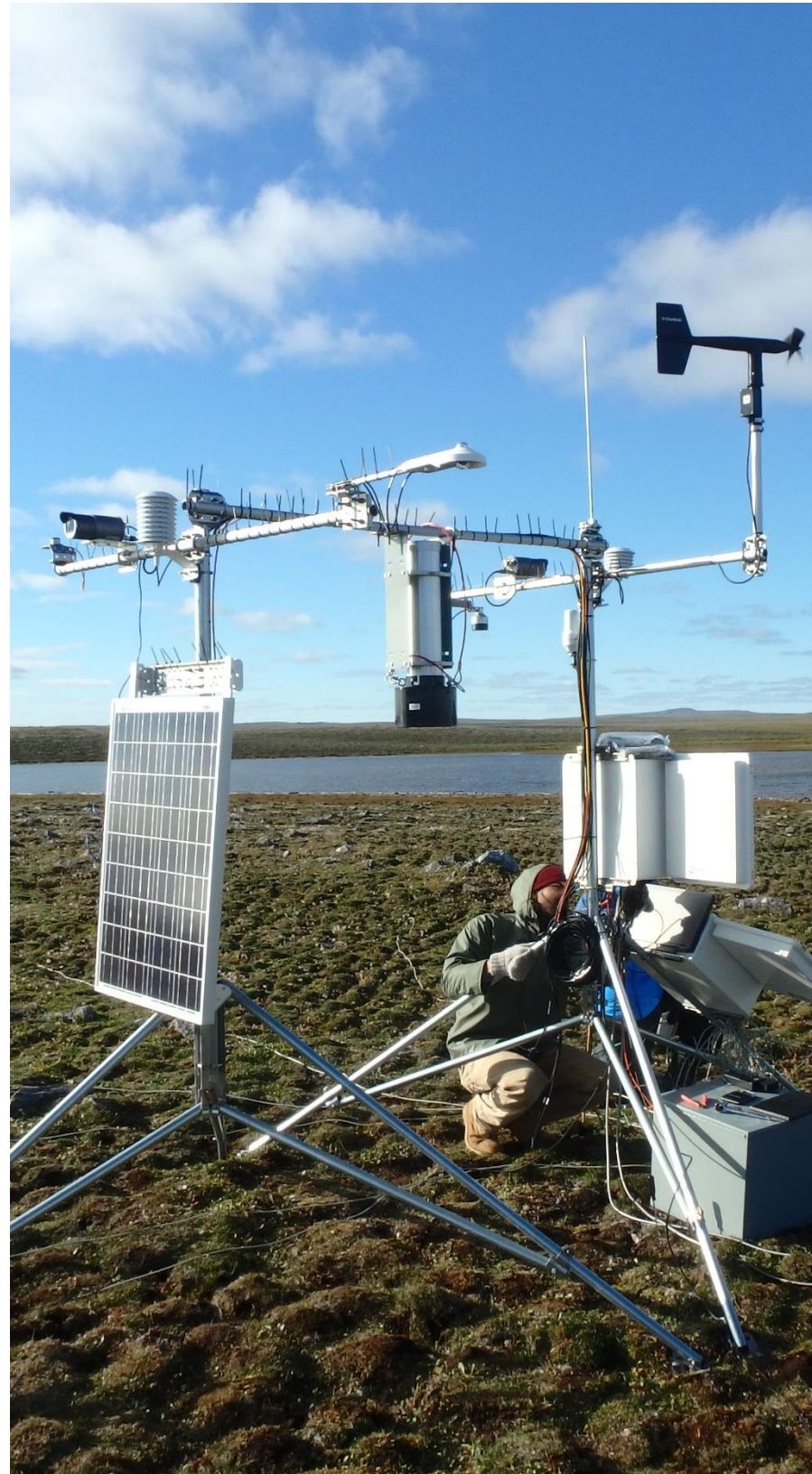
IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS
			<p><i>CIF Indicator:</i> N/A</p> <p><i>GIF Target:</i> 15.1- By 2020, ensure 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.</p> <p>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</p>

SECTION 5

Integrating Sustainable Development

Polar Knowledge Canada will continue to ensure that its decision-making process includes consideration of Federal Sustainable Development Strategy goals and targets throughout its Strategic Environmental Assessment (SEA) process. A Strategic Environmental Assessment for a policy, plan or program proposal includes an analysis of the impacts of the given proposal on the environment, including on relevant Federal Sustainable Development Strategy goals and targets. In accordance with the Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals, the POLAR's Strategic Environmental Assessment process involves the following steps:

1. A preliminary scan which screens for potential, important environmental effects, which can be either positive or negative. All proposals going to Cabinet, or the Minister are subject to this step.
2. If the scan does not identify the potential for important effects, then no further analysis is required.



3. If the preliminary scan identifies the potential for important environmental effects, or a high level of uncertainty of risk associated with the outcome, then a detailed analysis of the environmental effects will be conducted.

POLAR previously completed a Strategic Environmental Assessment in 2015 during the construction phase of the Canadian High Arctic Research Station. Using a geotechnical analysis, the assessment concluded that there are no important environment implications associated with the construction of the Canadian High Arctic Research Station, as the building is being used as a demonstration site for new technologies that enhance the efficiency of the facility, which in turn provides overall positive environmental effects. The Strategic Environmental Assessment also concluded that there are no important environmental implications associated with the development and implementation of the Canadian High Arctic Research Station Science and Technology Program, which again was found to provide an overall positive effect as it establishes the Canadian High Arctic Research Station as a world leader in green technologies for the Arctic and as a pilot site for alternative and renewable energy in the North.