2023 to 2024 Departmental Sustainable Development Strategy Report

Natural Resources Canada

2023 to 2024 Departmental Sustainable Development Strategy Report

Natural Resources Canada

Introduction to the 2023 to 2024 Departmental Sustainable Development Strategy Report

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 FSDS to be framed using the 17 Sustainable Development Goals (SDGs) 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, Natural Resources Canada supports the goals laid out in the FSDS through the activities described in NRCan's 2023 to 2027 Departmental Sustainable Development Strategy (DSDS). This Report provides an update on progress related to NRCan's DSDS in the fiscal year 2023 to 2024.

The *Federal Sustainable Development Act* also sets out 7 principles that must be considered in the development of the FSDS as well as DSDSs. These basic principles have been considered and incorporated in NRCan's DSDS and 2023 to 2024 DSDS Report.

To promote coordinated action on sustainable development across the Government of Canada, Natural Resources Canada's departmental strategy reports on Canada's progress towards implementing the 2030 Agenda and advancing the SDGs, supported by the Global Indicator Framework (GIF) and Canadian Indicator Framework (CIF) targets and indicators. The Report also now captures progress on SDG initiatives that fall outside the scope of the FSDS.

Rhonda Steed

Commitments for Natural Resources Canada

GOAL 4: PROMOTE KNOWLEDGE AND SKILLS FOR SUSTAINABLE DEVELOPMENT

FSDS Context:

Knowledge and education are critical to increasing climate literacy and supporting climate action. Canadians' knowledge and awareness of climate change, environmental and nature conservation topics is increasing; as is the perception that individual actions have a positive impact on environmental change; and actions to help fight climate change, conserve nature and achieve a cleaner and safer environment are possible. Continuing to promote knowledge and skills for sustainable development is critical to mitigating climate change and its impacts, and NRCan is working as part of a multi-departmental effort to reduce greenhouse gas (GHG) emissions and promote climate adaptation through innovative research using behavioural science insights. Additionally, NRCan is leading in collaboration with Environment and Climate Change Canada (ECCC), the Open Science and Data Platform, with support from the Impact Assessment Agency of Canada (IAAC), and several other departments and agencies. The Platform supports cumulative effects assessments for federal regulatory processes by providing access to authoritative data and information on topics related to development activities, the environment, and communities.

In 2023-24, NRCan made progress on this FSDS Goal through 2 departmental actions, namely, the Open Science and Data Platform, and through applying behavioural science insights in policy to promote climate action. The department was successful in achieving target outcomes for both actions.

The Open Science and Data Platform provides Canadians with open access to information relevant to cumulative effects, including climate change, thereby enhancing Canadians' trust in our regulatory system and supporting informed decision-making related to sustainable development. Similarly, behavioural science insights assist government in understanding public perspectives on climate change. This evidence will inform policy development, program design, and public communications on climate adaptation at the individual and community level.

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 FSDS target.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Conduct research supporting climate change mitigation and adaptation	Apply behavioural science insights and methods with robust policy analysis to promote climate action **Program**: Internal Services	**Performance indicator**: Number of teams at NRCan using behavioural science tools to design research projects to better understand Canadians' interest in sustainability-related topics (e.g., heat pump adoption, electric vehicle adoption, etc.) **Starting point**: 0 in 2021 **Target**: 4 by March 31, 2024	NRCan, in collaboration with PCO and ECCC, is working on the Program of Applied Research and Climate Action (PARCA) aimed at using behavioural science insights to understand Canadians' perspectives on climate change, in order to develop behaviourally-informed solutions with the potential to reduce GHG emissions and promote climate adaptation at the individual and community level. This work, conducted by behavioural scientists embedded in teams, will generate new insights to inform policy development, program design, and public communications promoting sustainable development. **Relevant targets or ambitions:** *CIF Ambition: Canadians have access to inclusive and quality education throughout their lives* *GIF 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, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development*	**Indicator result:** 6 teams across NRCan have used behavioural science tools in 2023-24. **Notes:** Target met. Through the Program of Applied Research and Climate Action (PARCA) these teams have been able to better understand the factors affecting the ability of Canadians to take action to reduce emissions related to home energy use and transportation and adapt to the increased risk posed by forest fires. In addition, several teams have used PARCA to better understand what Canadians think about efforts to both modernize and decarbonize the electricity system, including impacts on affordability.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Other	Provide, through the Open Science and Data Platform (OSDP), access to science and data related to cumulative effects, including climate change and adaptation

Program: Geoscience for Sustainable Development of Natural Resources | **Performance indicator**: Percentage of Open Science and Data Platform (OSDP) users who indicate they accessed the OSDP to acquire research and knowledge in support of sustainable development

Starting point: New program (0% in April 2023)

Target: 70% annually | NRCan is working in collaboration with ECCC, IACC, and other departments and agencies to enhance the Open Science and Data Platform. The platform integrates data from NRCan (and from other government departments, provinces, and territories) on forestry, geology, groundwater, and earth observations products such as land cover, and provides Canadians with access to thousands of records of cumulative effects-related data, publications, maps, and information about development activities. Providing access to information relevant to cumulative effects including climate change and development activities enhances Canadians' trust in our regulatory systems, and climate change and adaptation; as well as supports informed decision-making related to sustainable development.

Relevant targets or ambitions:

GIF 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, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development | **Indicator result:**

74% of users in 2023-24 acquired research and knowledge in support of sustainable development.

Notes:

Target met.

The Open Science and Data Platform (OSDP) provides access to over 170,000 content records relevant to cumulative effects, impact assessment, and important areas such as climate and biodiversity. This includes geospatial and time-series datasets focused on long-term climate data, biodiversity, water and air quality monitoring data, pollution data, multi-model prediction data including temperature and precipitation, among other related data and science products including publications. |

GOAL 5: CHAMPION GENDER EQUALITY

FSDS Context:

While substantial gains have been made over the past several decades, women in Canada and around the world are still significantly underrepresented in decision-making processes, are less likely to be employed or participate in the labour force and have lower average annual earnings than men. Women are also often underrepresented in clean tech and environmental occupations. As such, NRCan is committed to increasing the representation of Canadian women in leadership roles and in the clean energy workforce through the Equal by 30 Campaign. This project is a public and private sector partnership to address inequalities that remain throughout the energy sector. NRCan also leads the Equality in Energy Transitions Initiative, which seeks to eliminate gender disparities in the energy sector.

In 2023-24, NRCan advanced this FSDS Goal through accelerating the Equal by 30 Campaign. NRCan sought additional signatories to foster a larger network of governments and organizations working towards a more gender-inclusive and equitable workforce in the energy sector. NRCan's role in the campaign also demonstrates Canada's leadership in achieving gender equality. The department will meet this action's target outcome in the future.

Also, in support of SDG 5 – Gender Equality, NRCan co-leads the Equality in Energy Transitions Initiative and the Awards & Recognition program under the Equality Initiative. The Equality in Energy Transitions Initiative is a joint effort between the Clean Energy Ministerial and the International Energy Agency, which works to advance gender equality in the energy sector. The Awards & Recognition program under the Equality Initiative recognizes outstanding individuals and organizations who contribute to a clean energy future while advancing the empowerment of women simultaneously.

Target theme: Take Action on Gender Equality

Target: By 2026, at least 37% of employees in the environmental and clean technology sector are women (Minister of Innovation, Science and Industry)

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Invest in women's skills, employment, and leadership	Advance the meaningful participation of women and increase inclusion for all underrepresented groups in the clean energy workforce **Program**: Energy and Climate Change Policy	**Performance indicator**: Number of Canadian signatories to the Equal by 30 Campaign **Starting point**: 103 Canadian signatories in April, 2023 **Target**: 150 Canadian signatories by Dec 31, 2024	The Equal by 30 Campaign, led by NRCan, brings together the public and private sector to advance the meaningful participation of women in the energy sector. Signatories to the campaign work to advance gender equality by addressing issues such as equal pay, equal leadership, equal opportunities, inclusive culture, fair management, career development, and workplace safety. Increasing the number of Canadian signatories will create a larger domestic network of governments and organizations working towards a more gender-inclusive and equitable workforce in the energy sector and will showcase Canada's leadership on this issue. **Relevant targets or ambitions:** *CIF Ambition*: *Gender equality in leadership roles and at all levels of decision-making* *CIF Indicator*: *5.2.1. Proportion of leadership roles held by women* *GIF Target*: *5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life*	**Indicator result:** 108 Canadian signatories as of March 31, 2024. **Notes:** Results to be achieved in the future. Prince Edward Island, British Columbia, and Nunavut signed on to the campaign in 2023-24, joining Nova Scotia and Yukon, and bringing the total number of provincial and territorial signatories to five.

Initiatives advancing Canada's implementation of SDG 5 – Gender Equality

The following initiatives demonstrate how NRCan programming supports the 2030 Agenda and the SDGs, supplementing the information outlined above.

PLANNED INITIATIVES	ASSOCIATED DOMESTICS TARGETS OR AMBITIONS AND/OR GLOBAL TARGETS	RESULTS ACHIEVED
Canada recognizes that creating a diverse and inclusive workforce, equipped with the knowledge and skills needed for a net zero future-ready sector, means empowering women to ensure they become active participants in the natural resource sectors. To ensure that the low carbon energy transition is equitable and inclusive, NRCan jointly leads the Equality in Energy Transitions Initiative, a joint effort between the Clean Energy Ministerial and the International Energy Agency, which works to advance gender equality in the energy sector. NRCan also leads the Awards & Recognition program under the Equality Initiative, which recognizes outstanding individuals and organizations contributing to a clean energy future while advancing the empowerment of women.	These efforts contribute to advancing: Global Target 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life. Canadian Indicator Framework Target 5.2.1 Greater representation of women in leadership roles	The Equality Initiative hosted an impactful side-event at the 14th Clean Energy Ministerial Meeting, where NRCan launched the Equal by 30 Self-Assessment Tool, a resource to aid energy sector governments and organizations in evaluating progress on implementing inclusion, diversity, equity, and accessibility practices It was promoted within Canada through webinars and a hands-on session at GLOBE Forum 2024. NRCan also supported industry-led initiatives, such as the Women in Nuclear Gender Balance Roadmap. The Roadmap was launched on October 15, 2023, and aims to inform, advance, and create accountability on Equity, Diversity and Inclusion initiatives within the nuclear sector. It provides a consistent approach for industry to be successful in promoting greater diversity while considering potential barriers faced by women and non-binary people.

GOAL 7:
INCREASE CANADIANS' ACCESS TO CLEAN ENERGY

FSDS Context:

Energy production and use is currently the dominant contributor to climate change, accounting for around 78% of total global greenhouse gas emissions. In Canada, as in the rest of the world, greenhouse gas emissions primarily come from activities such as electricity production, oil and gas production, transportation, and heating and cooling of buildings. Clean and affordable energy is essential to Canada's and the world's aspirations to decarbonize, and NRCan is leading the domestic effort. Initiatives in support of this ambition include investing in research, development, demonstration, and deployment of new energy efficient technologies; transitioning remote communities to renewable energy; increasing Canada's non-emitting electricity generation capacity with funding for projects; enhancing energy efficiency regulatory standards; delivering the Clean Fuels Fund to de-risk investments in domestic clean-fuel production; and supporting the use of energy efficiency technologies and practices among both homeowners and industries to save costs while advancing Canada's clean energy ambitions.

In total, NRCan led 14 departmental actions in 2023-24 to contribute to this FSDS goal. 5 targets have been met and 9 will be completed in the future. These actions involve increasing renewable energy generation, improving the energy efficiency of Canadian homes, investing in research and development to unlock net-zero energy technologies, and much more. Developing these technologies will result in increased access to clean energy, met with reduced GHG emissions and lower energy bills for Canadians.

In support of SDG 7 Affordable and Clean Energy, NRCan is engaging with the global community to promote the transition to clean energy worldwide. Canada participates in various international fora, such as the Clean Energy Ministerial and the International Renewable Energy Agency, to support the investment and use of clean energy technologies. As a member of Mission Efficiency, Canada has also joined 15 other countries in committing to achieving greater annual energy improvements by 2030. NRCan also supported work under the bilateral Energy Transformation Task Force (ETTF) launched by Prime Minister Trudeau and President Biden in March 2023. The ETTF has driven significant progress towards more secure and resilient Canada-U.S. supply chains for critical minerals, nuclear fuels, and green steel and aluminum.

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 FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Invest in research, development and demonstration of clean energy technologies	Support research, development and demonstration (RD&D) projects with financial investments in order to address barriers and create innovative solutions related to renewable and non-emitting sources of electricity. **Program**: Energy Innovation and Clean Technology	**Performance Indicator**: Number of new RD&D projects supported[1] related to generation, storage, distribution or management of renewable and non-emitting electricity. **Starting point**: 0 as of April 1, 2023 **Target**: 22-28 by March 31, 2027	Innovative solutions related to renewable and non-emitting sources of electricity are necessary to develop the technologies and solutions required to achieve Canada's clean energy ambitions. This departmental action supports the increased participation, collaboration, and investment in RD&D projects related to renewable and non-emitting sources of electricity. Supporting large-scale, complex, cost-intensive, and often high-risk projects is intended to accelerate the development and adoption of technologies in this area. Developing these technologies and solutions will support efforts to improve access to clean energy, and over the longer term reduce GHG emissions. **Relevant targets or ambitions:** *CIF Ambition: Canadians have access to clean and renewable energy* *CIF Indicator: 7.3.1 Proportion of electricity generated from renewable and non-greenhouse gas emitting sources* *GIF Target: 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix*	**Indicator result**: 24 projects supported as of March 31, 2024. **Notes:** Target met. NRCan is funding 24 electricity RD&D projects through the Energy Innovation Program and the Program of Energy Research and Development.

---

[1] In addition to providing funding, NRCan also provides unique and critical support to Canadian innovation ecosystems that is required to bring new technologies from concept to market, including: connecting proponents with potential investors, partners, adopters or follow-on funders; providing expert advice to proponents and facilitating connections with other experts to help tackle non-technical barriers to growth; and engaging in the development or enhancement of codes, standards and regulations to help proponents bring their solutions to scale.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Play a leading role to promote clean and renewable energy	Contribute to the core activities of the International Renewable Energy Agency (IRENA) **Program**: Electricity Resources	**Performance Indicator**: Number of IRENA activities to which Canada directly contributes **Starting point**: 6 as of May 2023 **Target**: 12 by March 31, 2027	Canada continues to play a leading role in promoting clean and renewable energy through its active participation in IRENA's work. This participation includes: shaping organization activities and discussions as a member of the IRENA council; participating in IRENA's Climate Investment Fund, Coalition for Action, and Global Geothermal Alliance; contributing to IRENA's Work Program 2020-21 and the Medium-Term Strategy; and active promotion of Canadian initiatives and IRENA-led international events such as the Global Platform for Transitioning Remote Communities to Renewable Energy and Innovation Day in Canada. **Relevant targets or ambitions:** *CIF Ambition: Canadians have access to clean and renewable energy* *CIF Indicator: 7.3.1 Proportion of electricity generated from renewable and non-greenhouse gas emitting sources* *GIF Target: 7.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*	**Indicator result:** Canada contributed directly to 13 IRENA activities in 2023-24. **Notes:** Target met. These activities include the delivery of the IRENA mandate, council, and its initiatives; the Global Platform for Transitioning Remote Communities to Renewable Energy; and the Global Geothermal Alliance. The number of activities Canada contributes to may increase or decrease year to year depending on IRENA's priority work areas and their alignment with Canada's priorities. Canada's participation in IRENA activities contributes to the achievement of SDG7 by contributing to the global dissemination of knowledge, best practices and experiences around the deployment of renewable energy technologies.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Support renewable energy deployment	Fund the construction of new renewable energy generation capacity **Program**: Electricity Resources	**Performance Indicator**: Megawatts (MW) of new renewable energy generation capacity from projects that received funding from the Smart Renewables and Electrification Pathways Program (SREPs) **Starting point**: 33 MW as of April 2023 **Target**: 2,000 MW by March 31, 2029	SREPs supports renewable energy deployment by directly funding smart renewable energy deployment and electrical grid modernization projects, which increases Canada's renewable energy generation capacity. **Relevant targets or ambitions:** *CIF Ambition: Canadians have access to clean and renewable energy* *CIF Indicator: 7.3.1 Proportion of electricity generated from renewable and non-greenhouse gas emitting sources* *GIF Target: 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix*	**Indicator result:** 392 MW of new renewable energy generation capacity were produced from project that received funding from SREPs in 2023-24. **Notes:** Results to be achieved in the future. SREPs is expecting to exceed the 2,000 MW target by March 31, 2029, as more SREPS projects currently under construction are commissioned.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Support voluntary action to adopt clean energy technologies	Accommodate more renewable energy on the electricity grid **Program**: Electricity Resources	**Performance Indicator**: Total public and private investment in projects that receive Smart Renewables and Electrification Pathways Program funding **Starting point**: $655 million in April 2023 **Target**: $4 billion by March 31, 2029	Funding provided by the Smart Renewables and Electrification Pathways Program (SREPs) increases voluntary private investment in clean energy by creating a supportive business environment for projects. In addition, all SREPs' deployment and grid modernization projects must be capable of providing grid services, increasing the amount of total renewable energy projects the grid can accommodate (i.e. not only projects receiving SREPs funds). This directly supports the goal and the 2030 target to have 90% of Canada's electricity generated from renewable and non-emitting sources. **Relevant targets or ambitions:** *CIF Ambition: Canadians reduce their energy consumption* *CIF Indicator: 7.2.1 Total energy consumption per capita* *GIF Target: 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services*	**Indicator result:** $673.5 million invested in projects from SREPs as of March 31, 2024. **Notes:** Results to be achieved in the future. The indicator result above is a tabulation of total project costs for commissioned SREPs projects.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Work with partners on clean and renewable energy	Continue to advance the generation of energy from renewable sources in Indigenous, rural, and remote communities **Program**: Electricity Resources; Energy Innovation & Clean Technology; Forest Sector Competitiveness	**Performance Indicator**: Number of renewable energy projects supported[2] in rural, remote and Indigenous communities **Starting point**: 0 as of April 1, 2017 **Target**: 150 by March 31, 2024	Through Wah-ila-toos, NRCan funds projects that help reduce reliance on diesel fuel for heat and power through community-driven clean energy solutions. These projects also help create new green jobs and local economic opportunities as part of the clean energy transition. This initiative was first established through Budget 2017's Green Infrastructure funding as the Clean Energy in Rural and Remote Communities (CERRC). In 2022, NRCan worked with partner departments to develop Wah-ila-toos, a new federal single-window access point for diesel-reliant and Indigenous communities transitioning to clean energy, which is being used to disburse new funding announced in Budget 2021. **Relevant targets or ambitions:** *CIF Ambition: Canadians have access to clean and renewable energy* *CIF Indicator: 7.3.1 Proportion of electricity generated from renewable and non-greenhouse gas emitting sources* *GIF Target: 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix*	**Indicator result**: 187 projects as of March 31, 2024. **Notes:** Target met. This result includes 97 projects that have been completed and 90 projects that are still active as of March 31, 2024. This includes agreements that utilize CERRC funding to support projects in the Indigenous Off Diesel Initiative Program and Indigenous Services Canada's Strategic Partnership Initiative Program. The program will be reviewing and updating the target over the next year to reflect the next iteration of projects and funding.

---

[2] In addition to providing funding, NRCan also provides unique and critical support to Canadian innovation ecosystems that is required to bring new technologies from concept to market, including: connecting proponents with potential investors, partners, adopters or follow-on funders; providing expert advice to proponents and facilitating connections with other experts to help tackle non-technical barriers to growth; and engaging in the development or enhancement of codes, standards and regulations to help proponents bring their solutions to scale.

Target theme: Energy efficiency

Target: By 2030, 600 petajoules[3] of total annual energy savings will be achieved as a result of adoption of energy efficiency codes, standards and practices from a baseline savings of 20.0 petajoules in 2017 to 2018 (Minister of Natural Resources)

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Develop and implement energy efficiency codes and regulations	Enhance energy efficiency with increasingly stringent standards under the *Energy Efficiency Regulations* **Program**: Energy Efficiency	**Performance indicator**: Total energy savings (petajoules) from regulating the energy efficiency of products **Starting point**: 44.9 petajoules in 2022[4] **Target**: 77.4 petajoules in 2030	Regulating energy efficiency standards for products used in our homes, and commercial and industrial sectors helps Canadians benefit from lower energy bills associated with higher energy efficiency products and Canada reach its FSDS target. This departmental action builds on earlier regulatory amendments that increased the energy efficiency standards of products that are expected to be in use by 2030. Previous work between 2016-2022 is expected to achieve annual energy savings of 44.9 petajoules in 2030. **Relevant targets or ambitions:** *CIF Ambition: Canadians reduce their energy consumption* *CIF Indicator: 7.1.1 Annual energy savings resulting from adoption of energy efficiency codes, standards, and practices.* *GIF Target: 7.3 .3 By 2030, double the global rate of improvement in energy efficiency*	**Indicator result**: Total annual energy savings of 19.7 petajoules in 2023-24. **Notes:** Results to be achieved in the future. In 2023-24, the regulatory work on energy-using products focused on advancing the development of Amendment 18 of the Energy Efficiency Regulations, which was published in Canada Gazette Part I, in June 2024.

---

[3] A petajoule (PJ) is a standard unit of energy. 1 PJ is equivalent to the amount of energy 10,000 homes would use for one year.
[4] Due to a typographical error, 44.9 petajoules was incorrectly stated as the starting point. The starting point should be 16 petajoules in 2022-23, and will be updated through the 2024-25 DSDS update

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Invest in research, development and demonstration of energy efficiency technologies	Support research, development and demonstration (RD&D) projects in order to address barriers and create innovative solutions related to the implementation of energy efficient and net-zero energy building technologies **Program**: Energy Efficiency & Clean Technology	**Performance indicator**: Number of RD&D projects supported[5] related to energy efficient and net-zero energy building technologies **Starting point**: 0 as of April 1, 2017 (20 as of April 1, 2023) **Target**: 40-45 by March 31, 2027	Buildings are a key source of greenhouse gas emissions, and investments in RD&D are needed to develop the technologies and solutions required to reduce these emissions, a key element in achieving Canada's climate goals. Supporting large-scale, complex, cost-intensive, and often high-risk projects is intended to accelerate the development and adoption of energy efficient buildings and building technologies, design, and construction. Developing these technologies and solutions will support efforts to improve energy efficiency in buildings and access to clean energy. **Relevant targets or ambitions:** *CIF Ambition: Canadians reduce their energy consumption* *CIF Indicator: 7.2.1 Total energy consumption per capita* *GIF Target: 7.3 By 2030, double the global rate of improvement in energy efficiency*	**Indicator result**: 58 projects supported as of March 31, 2024. **Notes:** Target met. NRCan is funding 58 energy efficient buildings RD&D projects through the Green Infrastructure Energy Efficient Buildings RD&D program, the Greener Neighbourhoods Pilot Project, the Energy Innovation Program, and the Program of Energy Research and Development.

---

[5] In addition to providing funding, NRCan also provides unique and critical support to Canadian innovation ecosystems that is required to bring new technologies from concept to market, including: connecting proponents with potential investors, partners, adopters or follow-on funders; providing expert advice to proponents and facilitating connections with other experts to help tackle non-technical barriers to growth; and engaging in the development or enhancement of codes, standards and regulations to help proponents bring their solutions to scale.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Support use of energy efficiency technologies and practices	Improve the energy efficiency of Canadian homes through the Canada Greener Homes Initiative, including the Canada Greener Homes Grant (CGHG) and the Oil to Heat Pump Affordability (OHPA) Program **Program**: Energy Efficiency	**Performance indicator**: Total annual energy savings (petajoules) from the Canada Greener Homes Grant[6] **Starting point**: New initiative (0 as of December 1, 2020) **Target**: Up to 10.4 petajoules of total annual energy savings by 2027	The Canada Greener Homes Initiative, launched in 2021, helps homeowners save money and reduce greenhouse gas emissions by providing grant and loan funding for eligible home retrofits, including energy efficiency retrofits. NRCan's components include the Canada Greener Homes Grant (CGHG) and the Oil to Heat Pump Affordability (OHPA) Program. CGHG provides grants of up to $5,000 for retrofits and $600 for EnerGuide evaluations. OHPA provides low-to-median income households with up to $10,000 in upfront grants to transition off oil to more efficient heat pumps, without the need for an EnerGuide evaluation. The Initiative reduces energy use and provides energy savings while supporting the goal of increasing access to clean energy. **Relevant targets or ambitions:** *CIF Ambition: Canadians reduce their energy consumption* *CIF Indicator: 7.1.1 Annual energy savings resulting from adoption of energy efficiency codes, standards, and practices* *GIF Target: 7.3 By 2030, double the global rate of improvement in energy efficiency*	**Indicator result**: Total annual energy savings of 9.4 petajoules in 2023-24. **Notes:** Results to be achieved in the future.

---

[6] A petajoule (PJ) is a standard unit of energy. 1 PJ is equivalent to the amount of energy 10,000 homes would use for one year.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Support voluntary action to adopt energy efficiency technologies and practices	Improve the energy performance of industry in Canada by supporting adoption of energy efficiency and energy management solutions through NRCan's industrial energy efficiency programming **Program**: Energy Efficiency	**Performance indicator**: Total annual energy savings (petajoules) from NRCan's industrial energy efficiency programming **Starting point**: 4 petajoules in 2017-18 **Target**: 117 petajoules by 2030	NRCan's industrial energy efficiency programming helps industrial facilities in Canada to realize energy savings and related cost savings per unit of production, which contributes to competitiveness and sustainability. These savings will support Canada in its efforts to reduce energy consumption and associated GHG emissions. **Relevant targets or ambitions:** *CIF Ambition: Canadians reduce their energy consumption* *CIF Indicator: 7.1.1 Annual energy savings resulting from adoption of energy efficiency codes, standards, and practices.* *GIF Target: 7.3 By 2030, double the global rate of improvement in energy efficiency*	**Indicator result:** Total annual energy savings of 28.5 petajoules in 2023-24. **Notes:** Results to be achieved in the future.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Support voluntary action to adopt energy efficiency technologies and practices	Improve the energy performance of industry in Canada by supporting adoption of energy efficiency and energy management solutions through NRCan's industrial energy efficiency programming **Program**: Energy Efficiency	**Performance indicator**: Total annual energy savings (petajoules) from NRCan's industrial energy efficiency programming **Starting point**: 4 petajoules in 2017-18 **Target**: 117 petajoules by 2030	NRCan's industrial energy efficiency programming helps industrial facilities in Canada to realize energy savings and related cost savings per unit of production, which contributes to competitiveness and sustainability. These savings will support Canada in its efforts to reduce energy consumption and associated GHG emissions. **Relevant targets or ambitions:** *CIF Ambition: Canadians reduce their energy consumption* *CIF Indicator: 7.1.1 Annual energy savings resulting from adoption of energy efficiency codes, standards, and practices.* *GIF Target: 7.3 By 2030, double the global rate of improvement in energy efficiency*	**Indicator result:** Total annual energy savings of 28.5 petajoules in 2023-24. **Notes:** Results to be achieved in the future.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Work with domestic and international partners on energy efficiency	Improve the energy efficiency of Canada's homes and buildings through the Codes Acceleration Fund, which will increase the capacity of jurisdictions, such as provinces and territories, to accelerate the adoption and implementation of the higher tiers of the national model energy codes **Program**: Energy Efficiency	**Performance indicator**: Number of (provincial and territorial) authorities that have jurisdiction and have adopted the higher energy performance tiers of the 2020 model energy codes. **Starting point**: New initiative (0 in 2022) **Target**: 13 provinces and territories adopt minimum Tier 2 of the NECB and NBC 9.36, or equivalents by 2030	The Codes Acceleration Fund (CAF) will improve the energy performance of Canada's homes and buildings over time as they are constructed to higher performance requirements, contributing to Canada's total energy savings. **Relevant targets or ambitions:** *CIF Ambition: Canadians reduce their energy consumption* *CIF Indicator: 7.1.1 Annual energy savings resulting from adoption of energy efficiency codes, standards, and practices* *GIF Target: 7.3 By 2030, double the global rate of improvement in energy efficiency*	**Indicator result**: Zero provinces and territories have adopted higher energy tiers. **Notes:** Results to be achieved in the future. The Codes Acceleration Fund's main focus in 2023-24 was finalizing the review process and negotiating contribution agreements (CA). Announcements of CAF funded projects began in summer 2024.

Target theme: Clean fuels

Target: By 2030, increase Canada's capacity to produce clean fuels by 10% over 2021 levels (Minister of Natural Resources)

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Deliver the Clean Fuels Fund	Provide funding to increase Canada's clean fuels production capacity**.** **Program**: Lower Carbon Transportation	**Performance indicator**: Percentage increase in clean fuels production capacity over 2021 levels **Starting point**: The baseline of clean fuels production is being developed, and not yet available. **Target**: By December 31, 2030, a 10% increase in Canada's capacity to produce clean fuels over 2021 levels	Increasing Canada's clean fuels capacity requires investment in the private sector. The Clean Fuels Fund supports businesses that invest in building clean fuel capacity, pushing Canada closer to achieving our goal of increasing Canadians' access to clean energy, and of ensuring we meet our 2030 target of a 10% increase in clean fuels production capacity over 2021 levels. **Relevant targets or ambitions:** *CIF Ambition*: *Canadians have access to clean and renewable energy* *GIF Target: 7.1 By 2030, ensure access to affordable, reliable, sustainable, and modern energy services.*	**Indicator result:** No result available in 2023-24. **Notes:** Results to be achieved in the future. The annual production capacity estimate for year 2021 has not been finalized. The results cannot be presented as a percentage increase in clean fuels production. As of March 31, 2024, NRCan through the Clean Fuels Fund has provided funding to support a total annual production capacity of 77 million gigajoules (M GJ), through the following funding streams: Building New domestic Production Capacity Projects (70 M GJ); Indigenous-led Projects (4.9 M GJ); and Establishing Biomass Supply Chains (1.7M GJ).

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Develop and update codes and standards	Support the development and alignment of codes and standards through publications **Program**: Lower Carbon Transportation	**Performance indicator**: Number of publications developed for clean fuels standard development organizations **Starting point**: New program (0 in 2022) **Target**: At least 250 publications underway by December 31, 2026	Codes and standards are required to make progress in increasing clean fuels capacity. Publications such as standards documents, technical specifications and enabling research, will ensure the safe production, delivery, storage and end-use of these fuels. Clean fuels will play an important role in meeting Canada's commitment to emissions reduction. **Relevant targets or ambitions:** *CIF Ambition: Canadians have access to clean and renewable energy* *GIF Target: 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services*	**Indicator result:** 47 publications have been published as of December 2023. **Notes:** Results to be achieved in the future. Between 2023 and 2024, 21 documents were published including standards, codes, technical specifications, and amendments. Furthermore, 9 research reports were also completed with several specific to hydrogen production, delivery and end-use.

25

Implementation strategies supporting the goal

This section is for implementation strategies that support the goal **"Increase Canadians' access to clean energy"** but not a specific FSDS target

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Invest in research, development and demonstration of clean fuels	Support research, development and demonstration (RD&D) projects in order to address barriers and create innovative solutions related to clean fuels and industrial fuel switching **Program**: Energy Innovation & Clean Technology	**Performance indicator**: Number of new RD&D projects supported[7] related to clean fuels and industrial fuel switching **Starting point**: 0 as of April 1, 2022 **Target**: 55-65 as of March 31, 2027	Canada's transportation and industry sectors are currently heavily reliant on fossil fuels. Investments in RD&D are needed to develop the technologies that will enable Canadians to switch to clean energy alternatives (low- and zero-carbon fuels), thereby decarbonizing these sectors and helping Canada achieve its climate goals. This departmental action supports increased participation, collaboration, and investment in clean fuels RD&D projects. Supporting large-scale, complex, cost-intensive, and often high-risk projects is intended to accelerate the development and adoption of clean fuels. Developing these technologies and solutions will support efforts to increase access and adoption of clean fuels, and over the longer term reduce GHG emissions. **Relevant targets or ambitions:** *CIF Ambition: Canadians have access to clean and renewable energy* *CIF Indicator: 7.3.1 Proportion of electricity generated from renewable and non-greenhouse gas emitting sources* *GIF Target: 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with*	**Indicator result**: 55 projects supported as of March 31, 2024. **Notes:** Target met. NRCan is funding 55 clean fuels and industrial fuel switching RD&D projects through the Energy Innovation Program and the Program of Energy Research and Development.

---

[7] In addition to providing funding, NRCan also provides unique and critical support to Canadian innovation ecosystems that is required to bring new technologies from concept to market, including: connecting proponents with potential investors, partners, adopters or follow-on funders; providing expert advice to proponents and facilitating connections with other experts to help tackle non-technical barriers to growth; and engaging in the development or enhancement of codes, standards and regulations to help proponents bring their solutions to scale.

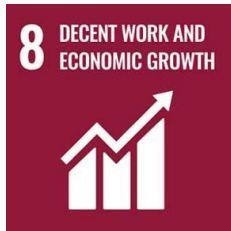| IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
			increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Work with stakeholders to advance the Hydrogen Strategy for Canada	Report and track progress on the Hydrogen Strategy for Canada. **Program**: Lower Carbon Transportation	**Performance indicator**: Number of reports tracking and monitoring progress on the Hydrogen Strategy for Canada **Starting point**: New initiative (0 in 2021) **Target**: Develop a report every two years beginning in 2023	The Hydrogen Strategy for Canada will help the country on its path to meet climate change goals of net-zero by 2050 by reducing the country's dependence on fossil fuels. Tracking and monitoring progress on the Hydrogen Strategy will not only allow for understanding and addressing the challenges of growing, distributing, and using this new clean energy source; but it will ensure Canada is on track to meet its ambitions of increasing the availability of clean fuels. **Relevant targets or ambitions:** *CIF Ambition: Canadians have access to clean and renewable energy* *GIF Target: By 2030, ensure universal access to affordable, reliable and modern energy services*	**Indicator result**: No report was published in 2023-24 **Notes:** Results to be achieved in the future. The Hydrogen Strategy Progress Report, Canada's first report of the progress made on the objectives and recommendations of Canada's Hydrogen Strategy, was published on May 10, 2024. The Progress Report summarizes the 32 recommendations of the Hydrogen Strategy, noting progress achieved especially in the following areas: Establishing a competitive policy ecosystem (establishment of Clean Hydrogen Investment Tax Credit, Clean Fuels Fund and other funding other measures); The development of codes and standards; and creating green jobs and providing energy security to allies while also contributing to global emissions reductions.

The following initiatives demonstrate how NRCan programming supports the 2030 Agenda and the SDGs, supplementing the information outlined above.

PLANNED INITIATIVES	ASSOCIATED DOMESTICS TARGETS OR AMBITIONS AND/OR GLOBAL TARGETS	RESULTS ACHIEVED
Canada will continue to engage with the global community, including through various international fora (such as the Clean Energy Ministerial and Mission Innovation) to support the development of, access to, investment in, and use of clean energy and enabling technologies. For example, Canada has pledged 8 million dollars in financial support to the International Energy Agency's (IEA) Clean Energy Transitions Programme. Canada also holds a leadership role in various international fora dedicated to energy efficiency, including as Chair of the IEA Energy Efficiency Working Party, Vice-Chair of the Energy Efficiency Hub, and as member of the Steering Committee of the UN Global Alliance for Buildings and Construction. Canada is also part of Mission Efficiency (formerly the Three Percent Club) with international partners, including 15 other countries, committing to working toward achieving greater annual energy improvements by 2030. Canada also works with international partners on the development and deployment of small modular reactors (SMR) that have the potential to provide a safe, secure and reliable non-emitting source of baseload energy in Canada (including in remote communities) and globally. To continue strengthening the role of nuclear energy in Canada's clean energy transition, NRCan launched the Enabling Small Modular Reactors (SMRs) Program in February 2023.	These efforts contribute to advancing: Global Targets: 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services. 7.3 By 2030, double the global rate of improvement in energy efficiency; and 7.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 Canadian Indicator Framework (CIF) Targets: 7.1.1 By 2030, 600 petajoules of total annual energy savings will be achieved as a result of the adoption of energy efficiency codes, standard sand practices from a baseline savings of 20.0 petajoules in 2017 to 2018 7.3.1 By 2030, 90%, and in the long term 100%, of Canada's electricity is generated from renewable and non-emitting sources Canadian Ambitions: 7.1 Canadian Ambition: Canadians reduce their energy consumption 7.3 Canadians have access to clean and renewable energy	Canada is committed to on-going engagement with the Clean Energy Ministerial (CEM) and Mission Innovation (MI) to advance its clean energy and climate goals on a global scale. Canada had strong representation at the CEM Senior Officials meeting and MI Annual Gathering, in addition to the Ministerial event, Canada continues to support the CEM and MI with financial and in-kind support. Canada participates in 19 out of 23 CEM workstreams. NRCan has continued to provide leadership to advance clean energy deployment and policy through the Hydrogen, Nuclear, and Equality in Energy Transitions initiatives, among others, as well as provide expertise through new efforts such as the Battery Storage Initiative. NRCan also continued to provide leadership to accelerate clean energy innovation through the International Energy Agency (IEA) and Mission Innovation (MI), including co-leading MI's Carbon Dioxide Removal Mission and participating in the Clean Hydrogen, Green Powered Future, and Integrated Biorefineries Missions. NRCan also participated in 23 of the IEA's Technology Collaboration Programme (TCP) and provided expertise for the development of a series of IEA CCUS-related publications. Internationally, through the Energy Transformation Task Force (ETTF), Canada and the United States advanced shared priorities to support the development of civil nuclear fuel supply chains and promote the deployment of safe, zero-carbon nuclear energy. This work directly supported energy security and the development of an integrated, North American industry independent from Russian influence. Canada also pursued similar nuclear fuel supply chain objectives as part of the Sapporo 5 partnership alongside the U.S., France, Japan, and the U.K., announced at COP 28 in December, 2023. Domestically, the Enabling SMR Program concluded the application process and signed one contribution agreement. In parallel, funding was awarded to Canadian universities for research on SMR supply chains, including fuel and SMR waste. NSERC and NRCan are co-funding 15 projects ($4M from NRCan and $8.7M from NSERC).

PLANNED INITIATIVES	ASSOCIATED DOMESTICS TARGETS OR AMBITIONS AND/OR GLOBAL TARGETS	RESULTS ACHIEVED
		In support of Global Targets 7.1 and 7.3, in 2023-24, NRCan provided over $170 million in funding to 344 projects to deliver targeted clean energy RD&D support, carried out by innovative Canadian businesses, utilities, communities, and via world-class research in federal laboratories. This includes the projects counted in the indicators above, as well as projects in other energy sectors and cross-cutting projects, which support both SDG goals 7 and 9.
		NRCan continued to play a global leadership role to increase energy efficiency and accelerate the clean energy transition as a longstanding member of the International Energy Efficiency Hub (EE Hub).
		In fall 2023, the EE Hub hosted a policy exchange workshop focused on improving energy efficiency and curbing emissions from data centers, to encourage cross-pollination of public and private sector strategies and share policy actions and best practices.

GOAL 8: ENCOURAGE INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH IN CANADA

FSDS Context:

Opportunities exist across all sectors for businesses to increase their competitiveness and become more sustainable. To transform the economy, Canada will need to decarbonize and reduce the environmental impacts of existing sectors while growing and supporting clean technology and emerging sector jobs, including by upskilling and reskilling workers, increasing workforce participation, and diversifying local economies. NRCan plays a vital role in encouraging inclusive and sustainable economic growth throughout Canada's vast natural resources sector. Through the Regional Energy and Resource Tables (Regional Tables), NRCan is establishing joint partnerships with individual provinces and territories in collaboration with Indigenous partners – and with input from key stakeholders – to identify and accelerate shared economic priorities for a low-carbon future in the energy and resource sectors. By aligning resources and timelines and better coordinating regulatory and permitting processes, NRCan is supporting each region in turning individual strengths and a unique mix of natural resources into a comparative advantage in the global, low-carbon economy. Additionally, through the 2023 Sustainable Jobs Plan and introduction of Bill C-50, *the Canadian Sustainable Jobs Act,* NRCan is guiding and organizing federal efforts to support workers, businesses, and communities as Canada shifts to a low-carbon economy.

In 2023-24, 3 departmental actions were developed to further support these aims. One target was met, while 2 targets will be completed in the future. NRCan was successful in stimulating domestic and foreign investment by providing the world with responsibly produced low-carbon battery cells for electric vehicles. Since 2020, companies have invested more than $46 billion in Canada's value chain, creating thousands of direct jobs for the country. NRCan also plays a vital role in encouraging inclusive and sustainable economic growth throughout Canada's vast natural resources sector. Through the Regional Energy and Resource Tables (Regional Tables), NRCan is aligning resources, timelines and better coordinating regulatory and permitting processes to support each region in turning their individual strengths and unique mixes of natural resources into a comparative advantage in the global, low-carbon economy. Additionally, through the 2023 Sustainable Jobs Plan and introduction of Bill C-50, *the Canadian Sustainable Jobs Act,* NRCan is guiding and organizing federal efforts to support workers, businesses, and communities as Canada shifts to a low-carbon economy.

Implementation strategies supporting the goal

This section is for implementation strategies that support the goal '**Encourage inclusive and sustainable economic growth in Canada**' but not a specific FSDS target.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Collaborate with provinces and territories through the Regional Energy and Resources Tables	Establish joint partnerships with provinces and territories– in collaboration with Indigenous partners and with the input of key stakeholders – to identify and accelerate opportunities for transforming Canada's traditional resource industries and advancing emerging ones for a low carbon future **Program**: Energy and Climate Change Policy	**Performance indicator**: Number of completed Collaboration Frameworks/roadmaps or other bilateral collaborative plans that include input from Indigenous and other regional partners and for which implementation is underway **Starting point**: New Program (0 as of 2022) **Target**: 13 by March 31, 2025	The Regional Energy and Resource Tables (Regional Tables) are a key part of the Government of Canada's efforts to ensure Canadians reap the economic benefits of climate action. The Tables will align regional priorities, funding and financing opportunities, and policy and regulatory approaches to accelerate economic activity and position every region in Canada to lead in areas where they have, or can create comparative advantage in the low carbon future. By working collaboratively from coast to coast to coast, this work will encourage inclusive and sustainable economic growth, across all provinces and territories. **Relevant targets or ambitions:** *CIF Ambition: Canadians contribute to and benefit from sustainable economic growth* *GIF 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.*	**Indicator result:** Two collaboration frameworks have been released as of March 31, 2024. **Notes:** Results to be achieved in the future. The British Columbia Regional Energy and Resource Table: Framework for Collaboration on the Path to Net Zero was published with British Columbia, in collaboration with First Nation partners, on June 27, 2023. The Newfoundland and Labrador Regional Energy and Resource Table – Framework for Collaboration on the Path to Net-Zero was published with Newfoundland and Labrador, alongside Indigenous partners, on March 20, 2024. As of March 31, 2024, Regional Tables were underway in 9 provinces and territories, including British Columbia, Manitoba, Ontario and the 4 Atlantic provinces (New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador) as well as the Northwest Territories and Yukon. An alternative collaboration mechanism has been established with Alberta, and discussions are underway with Nunavut and Quebec.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Implement a mines-to-mobility approach to grow strategic supply chains	Stimulate domestic and foreign investment into Canada's industrial and innovation battery ecosystem **Program**: Lower Carbon Transportation	**Performance indicator**: Number of anchor investments in Canada's battery value chain **Starting point**: One as of May 2023 **Target**: At least two by March 31, 2025	As the world's transportation systems decarbonize, advanced batteries for electric vehicles will be in high demand. Canada is well-positioned to provide the world with responsibly produced, low-carbon battery cells, components, minerals and metals. Investment into Canada's value chain will bring thousands of direct jobs, while also supporting the long-term economic competitiveness of Canada's automotive and automotive parts sectors. **Relevant targets or ambitions:** *CIF Ambition: Canadians contribute to and benefit from sustainable economic growth* *CIF Indicator: 8.6.1 Jobs in the clean technology products sector* *GIF Target: 8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead*	**Indicator result:** 4 anchor investments as of March 31, 2024. **Notes:** Target Met. To support the transition in Canada to electric vehicles (EVs), since 2020, companies have invested more than $40 billion in Canada's value chain for EVs. Some recent anchor investments in Canada's battery value chain include: Honda Canada to build a battery supply chain from battery precursor materials to EV assembly (April 2024); NorthVolt in an EV battery hub in Saint-Basile-le-Grand and McMasterville, Québec, to include a cathode active materials facility, a battery cell manufacturing facility and a battery recycling operation. (September 2023); Volkswagen Group and PowerCo SE for their first North American EV battery cell gigafactory in Thomas, Ontario. (April 2023); and, Stellantis N.V. and LG Energy Solution (LGES) to establish a new battery manufacturing plant in Windsor, Ontario. (March 2022).

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Support workers, businesses and communities	Undertake comprehensive action to support the future and livelihood of workers and their communities in the transition to a low-carbon economy via *the Canadian Sustainable Jobs Act* **Program**: Energy and Climate Change Policy	**Performance indicator**: Implementation of the Government's proposed *Canadian Sustainable Jobs Act* via three elements of legislation: establishing a Partnership Council, a Secretariat, and a Sustainable Jobs Action Plan **Starting point**: New initiative (0 of 3 elements of legislation completed) **Target**: Completion of 3 elements of legislation by March 31, 2026	As detailed in the Sustainable Jobs Plan released in early 2023, the Government introduced sustainable jobs legislation in June 2023 to establish a federal governance, engagement, and accountability framework to advance economic prosperity and ensure workers benefit from the opportunities presented by a low-carbon economy. Once the bill receives royal assent, the Government will be required to establish a Sustainable Jobs Partnership Council to provide independent advice to Government on sustainable jobs measures; create a Secretariat to lead the Government's sustainable jobs approach; and release a Sustainable Jobs Action Plan every five years beginning in 2025. These mechanisms will guide and organize efforts to support workers and communities as Canada shifts to a low-carbon economy, ensuring equitable, inclusive and sustainable economic growth across the country. Elements of the Bill could change as it is debated in Parliament. **Relevant targets or ambitions:** *CIF Ambition/Target: Canadians have access to quality jobs*	**Indicator result:** No elements were completed in 2023-24. **Notes:** Results to be achieved in the future. In 2023-24, the Department continued to support the proposed *Canadian Sustainable Jobs Act* (Bill C-50), which was introduced in Parliament in June 2023, and received Royal Assent in June 2024.

GOAL 9:
FOSTER INNOVATION AND GREEN INFRASTRUCUTRE IN CANADA

FSDS Context:

Canada's industrial sector is a major driver of economic activity, including income, jobs, and exports. While industry is a significant source of greenhouse gas emissions in Canada, many sectors are taking action to green their industries. Green infrastructure plays a key role in conserving natural resources and addressing climate change impacts by reducing greenhouse gas emissions and pollution. Investing in green infrastructure, such as low-carbon transportation, climate-resilient and energy efficient buildings, and clean energy, helps build healthy and resilient communities, provides against a changing climate, promotes environmental sustainability, drives economic growth, and supports a net-zero economy. NRCan is a leader in Canada's green innovation charge, committed to installing over 80,000 electrical vehicle chargers from coast to coast to coast to provide Canadians with clean energy and reliable transportation infrastructure; to advancing research, and development and demonstration of clean energy technologies; and to fostering innovation through its open dissemination of core geospatial data, collected through collaborative partnerships with private, public, and Indigenous organizations.

3 of NRCan's departmental actions supported this FSDS Goal in 2023-24. 2 of these actions have been met, and the 3rd will be completed in the future. The Clean Growth Hub's mandate is to help clean technology stakeholders navigate federal programs in the clean energy transition. By assisting clean technology stakeholders in understanding the federal system of supports, innovators and adopters can advance their technologies from the laboratory to market, supporting a global, low-carbon economy. NRCan has met its target in supporting research, development and demonstration (RD&D) projects to advance carbon capture, utilization and storage. Supporting these large-scale and complex projects is intended to accelerate the development of CCUS, and over time, reduce GHG emissions.

In support of UN SDG 9 - Industry, Innovation and Infrastructure, NRCan sponsored geospatial science and infrastructure efforts to collect and disseminate geospatial data on maps and public platforms.

Target theme: Green infrastructure and innovation [8]

Target: By March 31, 2026, 34,500 new electric vehicle chargers and 25 hydrogen refueling stations are completed where Canadians, live, work and play, including in public places, on-street, at multi-unit residential buildings, rural and remote locations and the workplace (Minister of Natural Resources);

Target: By March 31, 2027, contribute to the deployment of 50,000 new zero-emission vehicle chargers and refueling stations (Minister of Natural Resources)[9]

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Invest in the deployment of zero emissions vehicles and refueling infrastructure	Deploy new zero-emission vehicle infrastructure[10][11] **Program**: Low Carbon Transportation	**Performance indicator**: Number of low-carbon recharging and refueling stations completed **Starting point**: As of March 31, 2023, the program has funded projects that will result in a total of 42,366 new chargers and 26 new hydrogen stations being built. This includes 4, 108 chargers that are open to the public.	The department is working to support the deployment of new zero emission vehicle infrastructure. Availability of this infrastructure is a key action and that will contribute to the availability and use of electric and hydrogen vehicles by Canadians. This work to deploy zero emission vehicle infrastructure will directly contribute to reaching the target of having 50,000 new electric vehicle chargers and refueling stations, and to the target of having 34,500 new electric vehicle chargers and 45 hydrogen refueling stations completed. This deployment also supports the overall goal of fostering innovation and particularly green infrastructure in Canada.	**Indicator result:** As of March 31, 2024, 46,244 EV chargers and 39 hydrogen stations have been selected for funding. **Notes:** Results to be achieved in the future. 42,244 EV chargers and 19 hydrogen stations are selected for funding by NRCan's Zero Emission Vehicle Infrastructure Program (ZEVIP) and Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative (EVAFIDI) programs and 4,000 EV chargers and 20 hydrogen stations are selected

[8] In the 2022-26 FSDS under this target theme, Natural Resources Canada (NRCan) is listed in as one of the responsible organizations for the implementation strategies, "Invest in the deployment and adoption of clean technologies", and "Invest in research, development, and demonstration of clean technologies", both of which support the SD Tech Fund target. NRCan is not a participating organization in the Sustainable Development Technology Canada's SD Tech Fund, and will not report any departmental actions under these implementation strategies. In this DSDS, under FSDS Goal 7, NRCan presents its actions related to investments in both, the deployment and adoption of, and the research, development and demonstration of, clean energy technologies.

[9] The target date of March 31, 2027 refers to when the funding envelope ends for projects to build chargers and refueling stations. The date for the completion of the 50,000 charges and refueling stations is March 31, 2029.

[10] This departmental action supports both targets above and the FSDS Implementation Strategy: Invest in the deployment of electric vehicle chargers and hydrogen refueling stations.

[11] The Canada Infrastructure Bank is also investing $500M in support of these targets

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
		Target: By March 31, 2027, contribute to the deployment of 84,500 new zero-emission vehicle chargers and 45 hydrogen refuelling stations.	**Relevant targets or ambitions:** *CIF Ambition/Target: Canadians have access to modern and sustainable infrastructure* *CIF Indicator: 9.6.1 Number of low carbon recharging and refueling stations under development and completed along major highways, and in rural and urban areas across Canada; and 9.7.1 Number of low carbon recharging and refueling stations under development and completed in public places, on-street, at apartment buildings, retail outlets, and the workplace* *GIF 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*	for funding by the Canadian Infrastructure Bank Charging and Hydrogen Refuelling Infrastructure Initiative.

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 FSDS target

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Other	Support research, development, and demonstration (RD&D) projects to address barriers and create innovative solutions related to carbon capture, utilization and storage (CCUS) **Program**: Energy Innovation and Clean Technology	**Performance indicator**: Number of new CCUS-related RD&D projects supported[12] **Starting point**: 0 as of April 1, 2022 **Target**: 65-100 by December 31, 2026	CCUS technologies are generally still at an early adoption stage and not yet widely deployed. Investments in CCUS innovation are necessary to deliver on the promise of CCUS to enable large-scale greenhouse gas reductions in Canada and worldwide. This is especially important in sectors such as cement, iron and steel, chemicals and gas-fired power, which will require considerable R&D as well as demonstration at field and pre-commercial scales. This departmental action supports increased participation, collaboration, and investment in CCUS RD&D projects. Supporting large-scale, complex, cost-intensive, and often high-risk projects is intended to accelerate the development and deployment of CCUS. Developing these technologies will support the development and deployment of CCUS, and over the longer term reduce GHG emissions. **Relevant targets or ambitions:** *CIF Ambition: Canada fosters sustainable research and innovation* *CIF Indicator: 9.1.1 Proportion of innovation in environment-related technology* *GIF Target: 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with*	**Indicator result**: 81 projects supported as of March 31, 2024. **Notes:** Target met. NRCan is funding 81 CCUS RD&D projects through the Energy Innovation Program and the Program of Energy Research and Development

---

[12] In addition to providing funding, NRCan also provides unique and critical support to Canadian innovation ecosystems that is required to bring new technologies from concept to market, including: connecting proponents with potential investors, partners, adopters or follow-on funders; providing expert advice to proponents and facilitating connections with other experts to help tackle non-technical barriers to growth; and engaging in the development or enhancement of codes, standards and regulations to help proponents bring their solutions to scale.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
			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	

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Other	Continue to implement the Clean Growth Hub's mandate to help clean technology stakeholders navigate federal programs and initiatives that support innovation **Program**: Internal Services	**Performance indicator**: Percentage of surveyed Clean Growth Hub clients satisfied with the quality of the Clean Growth Hub's service **Starting point**: 70% as of March 31, 2022 **Target**: 70% by March 31, 2026	Together, NRCan and ISED co-lead the Clean Growth Hub to provide a single point of contact for clean technology producers and adopters, streamlining services and access to government knowledge and expertise and improving information sharing between federal departments. By helping clean technology stakeholders understand the federal system of supports and services through engagements and collaborations, the Clean Growth Hub helps them take their technologies from the laboratory to foreign markets and supports Canada's transition to a low-carbon economy. **Relevant targets or ambitions:** *GIF 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* *CIF Ambition: Canada fosters sustainable research and innovation*	**Indicator result:** 75% in 2023-24. **Notes:** Target met. Results were collected from the Clean Growth Hub's 2023 Client Satisfaction Survey.

Initiatives advancing Canada's implementation of SDG 9 – Industry, Innovation and Infrastructure

The following initiatives demonstrate how Natural Resources Canada programming supports the 2030 Agenda and the SDGs, supplementing the information outlined above.

PLANNED INITIATIVES	ASSOCIATED DOMESTICS TARGETS OR AMBITIONS AND/OR GLOBAL TARGETS	RESULTS ACHIEVED
NRCan fosters innovation and continual uptake of advanced geospatial technologies, policies, standards, and methods in data acquisition, processing, and dissemination. NRCan achieves advances in spatial data infrastructure, AI-assisted mapping and modelling, earth observation (EO) ground infrastructure, EO data collection, and resulting core geospatial data through collaborative partnerships with private, public, and Indigenous organizations. Results are freely shared, feeding downstream innovation and development of value-added products amongst public, academic, and private sectors.	These efforts contribute to advancing: Global 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 Canadian Indicator Framework (CIF) Ambition: 9.1 Canada fosters sustainable research and innovation	NRCan collects, processes, analyzes, develops and disseminates geospatial and EO data and value-added map products through public platforms, such as GEO.ca, Canada.ca, Atlas.gc.ca, the Open Science and Data Platform (OSDP), and the Earth Observation Data Management System (EODMS) in partnership with stakeholder relationships. Platform users include academia, industry, private sector, Canadian citizens, government entities, Indigenous communities, etc. Results achieved for 2023-2024 include but are not limited to developing and launching the CCMEO GeoAI Data Pipeline and the GeoAI GeoBase Spatio-Temporal Data Series, releasing a Flood Susceptibility Index across Canada, launching a renewed, user-friendly Atlas of Canada, releasing the Canadian Hydrospatial Network (CHN), completing the Federated Open Data Search project to release 9,500 datasets for open governance, onboarding 242 new datasets from Federal entities, launched 7 GEO.ca releases, advanced the National Elevation Data Strategy, and more.

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

FSDS Context:

Reconciliation with Indigenous Peoples is essential to addressing social, economic and environmental inequalities and achieving substantive equality. Urgent action is needed to close the social, economic, health, environmental protection, and educational gaps between Indigenous Peoples and the rest of Canada to ensure that everyone in Canada can enjoy the same quality of life, regardless of who they are or where they were born. NRCan continues to be an active participant in tackling inequality and advancing reconciliation with First Nations, Inuit, and Métis communities through its continued commitment to supporting Justice Canada in developing the UN Declaration Act Action Plan in consultation and cooperation with Indigenous Peoples in accordance with the *United Nations Declaration on the Rights of Indigenous Peoples Act*. NRCan has committed over $8 million to engage with Indigenous partners to develop a National Benefits-Sharing Framework to ensure Indigenous communities derive benefits from major natural resource projects in their territories. Additionally, NRCan is advancing the participation of Indigenous Peoples in the minerals and metals sector through the Canadian Minerals and Metals Plan (CMMP).

In 2023-24, NRCan met this FSDS goal by delivering 2 actions and achieving all subsequent results. NRCan co-developed the UN Declaration Act Action Plan through engagements with Justice Canada, stakeholders and industry partners, both Indigenous and non-Indigenous, holding a Spring 2024 engagement session in March 2024.

NRCan also conducted extensive engagement on the development of a National Benefits-Sharing Framework to improve the quality and consistency of benefits that Indigenous communities receive from natural resource projects in their territories.

NRCan is contributing to SDG 10 – Reduced Inequalities through exploring opportunities for increased Indigenous procurement in the mining sector. In 2023-24, NRCan through the CMMP released a Local Procurement Checklist, and completed a mining webinar series to explore how Indigenous communities can generate long-lasting socio-economic opportunities through mining procurement.

42

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 FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Implement the *United Nations Declaration on the Rights of Indigenous Peoples Act*	Supporting Justice Canada in the development of the UN Declaration Act Action Plan through engagement with industry stakeholders, both Indigenous and non-Indigenous **Program**: Nòkwewashk	**Performance indicator**: Percentage of respondents indicating satisfaction with NRCan's engagement process **Starting point**: New initiative (0% in April 2023) **Target**: 70% by March 31, 2024	The *United Nations Declaration on the Rights of Indigenous Peoples Act* requires the Government of Canada, in consultation and cooperation with Indigenous Peoples, to "take all measures necessary to ensure that federal laws are consistent with the Declaration (section 5), prepare and implement an action plan to achieve the objectives of the Declaration (section 6), and develop annual reports on progress and submit them to Parliament (section 7). To advance reconciliation and reduce inequalities, NRCan will continue to support Justice Canada in implementing the UN Declaration Act Action Plan by consulting with Indigenous Peoples and engaging with Indigenous organizations and industry stakeholders; by feeding into the whole-of-government progress reports; and by taking measures to ensure that existing laws and future laws reflect the rights and principles of the Declaration. **Relevant targets or ambitions:** *CIF Ambition: Canadians live free of discrimination and inequalities are reduced* *CIF Indicator: 10.2.1 Proportion of the population reporting discrimination or unfair treatment* *GIF Target: 10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices, and promoting appropriate legislation, policies, and actions in this regard.*	**Indicator result:** 91% as of March 31, 2024. **Notes:** Target met. NRCan held its Spring 2024 engagement session on implementation of the United Nations Declaration on the Rights Indigenous Peoples Act on March 26, 2024. A post-evaluation survey indicated that 91% of respondents were satisfied with the engagement process.

Implementation strategies supporting the goal

This section is for implementation strategies that support the goal **"Advance reconciliation with Indigenous Peoples and take action on inequality"** but not a specific FSDS target

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Co-manage natural resources, collaborate, and share benefits with Indigenous peoples	Develop a National Benefits-Sharing Framework to improve the quality and consistency of benefits that Indigenous communities derive from natural resource projects in their territories **Program:** Indigenous Partnerships Office[13]	**Performance indicator**: Percentage of respondents indicating satisfaction with NRCan's engagement process **Starting point**: New initiative (0% in April 2023) **Target**: 70% by September 30, 2024	The National Benefits-Sharing Framework (NBSF) will improve the quality and consistency of benefits that Indigenous communities derive from major natural resource projects in their territories. Budget 2023 provided $8.7 million for NRCan to engage with Indigenous partners to develop the Framework, and to explore opportunities to increase Indigenous communities' access to capital to invest in natural resource projects. By fostering the removal of barriers to participation of Indigenous Peoples in the Canadian economy, the Framework will help to reduce inequalities and advance reconciliation. NRCan engagement with key partners will assist in determining specific components and the scope of these components in NBSF development. *Relevant targets or ambitions:* *CIF Ambition: Canadians live free of discrimination and inequalities are reduced* *CIF Indicator: 10.2.1 Proportion of the population reporting discrimination or unfair treatment* *GIF Target: 10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices, and promoting appropriate legislation, policies, and actions in this regard.*	**Indicator result**: 100% as of March 31, 2024. **Notes:** Target met. Survey uptake was low, but of the participants who chose to respond to the post-engagement survey, all feedback was positive with minor comments on how the engagement session could have been planned differently.

---

[13] This Program no longer exists in NRCan's Program Inventory. It will be updated in the 2024-25 DSDS update to reflect the new program, Nòkwewashk.

Initiatives advancing Canada's implementation of SDG 10 – Reduced Inequalities

The following initiatives demonstrate how NRCan programming supports the 2030 Agenda and the SDGs, supplementing the information outlined above.

PLANNED INITIATIVES	ASSOCIATED DOMESTICS TARGETS OR AMBITIONS AND/OR GLOBAL TARGETS	RESULTS ACHIEVED
The Canadian Minerals and Metals Plan (CMMP) is working to advance the participation of Indigenous Peoples in the minerals and metals sector. By exploring opportunities for increased Indigenous procurement and business activity in the mining sector, which generates own-source revenues, the CMMP supports economic reconciliation.	These efforts contribute to advancing: Global Target 10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard Canadian Indicator Framework (CIF) Ambition 10.1 Canadians live free of discrimination and inequalities are reduced	In 2023-24, NRCan, through the CMMP, released a Local Procurement Checklist, which supports mining and exploration companies in implementing effective strategies to support Indigenous-owned businesses and guidance to local and Indigenous entrepreneurs. In collaboration with the Council for the Advancement of Native Development Officers, the CMMP also completed a mining webinar series, with the organization of webinars in Ontario, the Yukon, the Northwest Territories and Nunavut that provided an overview of exploration and mining activities and how Indigenous communities can generate long-lasting business and socio-economic opportunities through mining procurement.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

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

FSDS Context:

By transitioning to a cleaner and more circular economy that prioritizes reducing consumption and waste generation, reusing the resources already extracted, and finding processes and technologies that take a holistic systems-based approach to minimizing waste throughout the economy, we can help reduce negative impacts on the environment. Doing this also improves resilience to resource shortages, rising or volatile prices, and supply chain interruptions.

NRCan remains focused on Canada's efforts to reduce waste and transition to zero-emissions vehicles by improving the disposal management of non-hazardous operational waste, and by supporting the implementation of a federal action plan to reduce greenhouse gas emissions with a 100% zero-emissions vehicle fleet, an operational greening strategy, and targeted training for employees focused on green procurement. Additionally, through the Canadian Critical Minerals Strategy, NRCan is working with partners to advance circular solutions to close material loops, increase access to the minerals and metals contained in post-consumer goods through robust recycling infrastructure and secondary markets, and encourage their recovery from mining and industrial waste streams. NRCan is also supporting sustainable consumption and production patterns through the Canadian Minerals and Metals Plan (CMMP), which calls for greater collaboration between governments and industry to reduce waste in support of a more circular economy.

In 2023-24, NRCan implemented 4 departmental actions in 2023-24 to achieve this goal: 1 target has been met, 2 will be completed in the future, and 1 was not met. NRCan was successful in unlocking funding for the Canadian Critical Minerals Strategy. Critical minerals are essential for a green energy transition in Canada and the world. By investing in critical minerals today, NRCan is building a sustainable industrial base to address climate change for generations to come.

NRCan is conducting waste audits and evaluating recommendations as part of NRCan's Operational Greening Strategy, developing a Material Management Framework, and a five-year operational plan to support the procurement of zero-emission vehicles and reduce the GHG emissions from federal fleets.

In support of UN SDG 12 – Responsible Consumption and Production, NRCan, through the CMMP, organized the first annual Orphaned and Abandoned Mines workshop, advanced information sharing, and explored additional opportunities to integrate circular economy principles. Awareness-raising activities will promote responsible consumption at sectoral and local levels.

Target theme: Federal Leadership on Responsible Consumption

Target: By 2030, the Government of Canada will divert from landfill at least 75% by weight of non-hazardous operational waste (All Ministers)

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Maximize diversion of waste from landfill	Improve management of the disposal of non-hazardous operational waste in NRCan's operations **Program**: Internal Services	**Performance indicator**: Percentage of non-hazardous operational waste (by weight) diverted from landfills **Starting point**: 74.6% in 2022-23[14] **Target**: 75% by March 31, 2030	NRCan's non-hazardous waste diversion operations support the departmental and government-wide commitment to transition to greener operations. Actions include conducting regular waste audits to track results and reviewing and evaluating recommendations for continuous improvement as part of NRCan's Operational Greening Strategy, currently under development. **Relevant targets or ambitions:** *CIF Ambition: Canadians consume in a sustainable manner* *CIF Indicator: 12.3.1 Total waste diversion per capita* *GIF Target: 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse*	**Indicator result:** 63% as of March 31, 2024 **Notes:** Results to be achieved in the future. Results may vary from a year to another depending on the period and duration of waste audits.

---

[14] The starting point is incorrect and should be 69% in 2022-23. This will be updated in the 2025 DSDS update

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 FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Transform the federal light-duty fleet	Continue to support the implementation of a federal action plan to reduce greenhouse gas emissions from federal buildings and fleets **Program**: Internal Services	**Performance indicator**: Percentage of light-duty NRCan fleet vehicles that are zero-emission vehicles (ZEV) or hybrid electric vehicles (HEV) **Starting point**: 10% ZEV or HEV as of March 31, 2023 **Target**: 100% ZEV or hybrid by 2030	NRCan is currently developing a Material Management Framework, Operational Greening Strategy, and five-year operational plan to support the procurement of zero-emission vehicles within the Department. Collectively, these efforts will ensure a reduction in greenhouse gas emissions from federal fleets. **Relevant targets or ambitions:** *CIF Ambition: Canadians consume in a sustainable manner* *CIF Indicator: 12.1.1 Zero-emission vehicles represent 10% of new light duty vehicle sales by 2020, 30% by 2030, and 100% by 2040* *GIF Target: 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities*	**Indicator result:** 19% ZEV or HEV as of March 31, 2024. **Notes:** Results to be achieved in the future. NRCan continues to focus on replacing fleet vehicles on a lifecycle basis with a preference for ZEVs, then HEVs, if required for operational viability, where a sustainable program demand is confirmed, and Treasury Board policy criteria provides policy eligibility for replacement (age, kilometres driven. etc.).

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Strengthen green procurement criteria	Encourage new procurement employees to complete the optional Green Procurement course **Program**: Internal Services	**Performance indicator**: Percentage of employees in procurement who have completed training on green procurement **Starting point**: 64% as of March 31, 2023 **Target**: 90% by March 31, 2024	NRCan's action supports the Policy on Green Procurement by promoting the protection of the environment and supporting sustainable development through the integration of environmental performance considerations into the procurement decision-making process. Additionally, the Operational Greening Strategy currently under development will include provisions to strengthen green procurement policies. **Relevant targets or ambitions:** *CIF Ambition: Canadians consume in a sustainable manner* *CIF Indicator: 12.2.1 Proportion of businesses that adopted selected environmental protection activities and management practices* *GIF Target: 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities*	**Indicator result:** 71% as of March 31, 2024. **Notes:** Target not met. Target was not achieved given competing workload priorities. It is expected that the target of 90% will be met in the 2024-25 fiscal year.

Implementation strategies supporting the goal

This section is for implementation strategies that support the goal **"Reduce waste and transition to zero-emission vehicles"** but not a specific FSDS target

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Boost the supply of critical minerals for the green and digital economy	Unlock funding announced in Budget 2022 to implement the Canadian Critical Minerals Strategy **Program**: Provision of Federal Leadership in the Minerals and Metals Sector; Geoscience for Sustainable Development of Natural Resources; Green Mining Innovation; Indigenous Partnerships Office	**Performance indicator**: Percentage of funding unlocked to support implementation of the Canadian Critical Minerals Strategy **Starting point**: New initiative (0% as of 2022) **Target**: 100% by December 31, 2023	The Canadian Critical Minerals Strategy seeks to increase the supply of responsibly sourced critical minerals and support the development of domestic and global value chains for the green and digital economy through a range of initiatives that span the entire value chain, from exploration to mining to recycling. Critical minerals are the building blocks for the green and digital economy. They are used in a wide range of essential products, from mobile phones to solar panels, electric vehicle batteries to medical and healthcare devices, to military and national defence applications. Without critical minerals, there can be no green energy transition for Canada and the world. By investing in critical minerals today, we are building a sustainable industrial base to support emission-reducing supply chains that will address climate change for generations to come (e.g., net-zero energy and transportation systems). **Relevant targets or ambitions:** *CIF Ambition: Ensure access to affordable, reliable, sustainable and modern energy for all* *GIF Target: 12.2 By 2030, achieve the sustainable management and efficient use of natural resources.*	**Indicator result**: 100% of funding was unlocked as of December 31, 2023 **Notes:** Target met. The Canadian Critical Minerals Strategy was released on December 9, 2022. All Strategy initiatives have now launched, including the Critical Minerals Infrastructure Fund, Critical Minerals Geoscience and Data Initiative, Global Partnerships Initiative, Critical Minerals Research, Demonstration and Development Program, and dedicated critical minerals funding streams under the Strategic Innovation Fund and Canada Infrastructure Bank.

Initiatives advancing Canada's implementation of SDG 12 – Responsible Consumption and Production

The following initiatives demonstrate how NRCan programming supports the 2030 Agenda and the SDGs, supplementing the information outlined above.

PLANNED INITIATIVES	ASSOCIATED DOMESTICS TARGETS OR AMBITIONS AND/OR GLOBAL TARGETS	RESULTS ACHIEVED
The Canadian Minerals and Metals Plan (CMMP) calls for greater collaboration between governments and industry to reduce waste and support the circular economy. Through the CMMP strategic direction on the Environment, NRCan supports actions that contribute to sustainable consumption and production patterns, while positioning Canada as a reliable, sustainable, and responsible source of natural resources.	These efforts contribute to advancing: *Global Target 12.2 By 2030, achieve the sustainable management and efficient use of natural resources.* *Canadian Indicator Framework (CIF) Ambition Canadians consume in a sustainable manner*	In 2023-24, opportunities to integrate circular economy principles continued to be explored and encouraged for industry uptake, such as mine site and mine waste valorization. The first Annual Orphaned and Abandoned Mines workshop included a panel discussion on circular economy, which helped facilitate information sharing and collaboration.

GOAL 13:
TAKE ACTION ON CLIMATE CHANGE AND ITS IMPACTS

FSDS Context:

Communities across the country are experiencing the impacts of climate change, from extreme events such as wildfires, flooding, and heat waves, to rising sea levels, melting ice, and permafrost. NRCan continues to support the ongoing delivery of results and services in support of effective action on climate change by: working with provinces, territories, municipalities, Indigenous organizations and communities, and other stakeholders to increase Canada's resilience to a changing climate; advancing clean and emerging technologies, which reduce energy consumption and greenhouse gas emissions; and by sharing tools, climate change, and energy information with its stakeholders, and archiving and disseminating authoritative geospatial data to support climate change actions and decision-making. NRCan's Forest Climate Change Program is demonstrative of these actions. The Program provides science-based information, data, and tools to support adaptation actions in forests and forested landscapes across Canada under a changing climate, informs actions to meet greenhouse gas emission reduction targets, and ensures forest-related greenhouse gas reporting requirements are met, advancing Canada's commitment to tackling climate change and its impacts.

In 2023-24, NRCan led 8 departmental actions and 9 targets to support this FSDS goal. Out of the 9 targets, 4 targets were achieved, 4 will be completed in the future, and 1 was not met. NRCan developed an operational greening strategy to reduce greenhouse gas emissions from NRCan's buildings and fleets, facilitated the provision of geospatial data to support national and international emergency management efforts to enhance logistics support for scientific research conducted in the Canadian Arctic, and disseminated geospatial data to support climate change action and decision-making. NRCan is making progress in the areas of creating capacity for decision-making on climate resilience, incorporating climate change considerations into business planning, and supporting technologies to reduce energy consumption and diesel use (by means of electrical and hydrogen-powered technologies, and critical minerals R&D).

NRCan undertakes a broad range of activities to support UN SDG 13 – Climate Action, to strengthen resilience to climate-related hazards, integrate climate change measures into national policies, and support Canadians in facing the effects of climate change at a local level.

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 FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Implement the Greening Government Strategy through measures that reduce greenhouse gas emissions, improve climate resilience, and green the government's overall operations	Develop an operational greening strategy to reduce greenhouse gas emissions from NRCan's buildings and fleets **Program**: Internal Services	**Performance indicator**: Percentage reduction in equivalent greenhouse gas emissions from NRCan facilities and fleets compared to 2005-06 baseline **Starting point**: 43.5% as of March 31, 2023 (preliminary results) **Target**: 40% by 2030[15]; 90% by 2050	The Departmental Greening Strategy, currently under development, will advance creation and implementation of a roadmap and action plan to achieve multiple greening targets, including greenhouse gas reduction, climate resilience and other greening metrics in the Greening Government Strategy. This work will be combined with a comprehensive Real Property Portfolio Strategy that will seek to adjust the portfolio to its needs and that will direct Net Zero Carbon as a standard for new construction. On the fleet side, a review of the fleet management, review of the fleet requirements and five-year operational plan to support the procurement of zero-emission vehicles within the Department. **Relevant targets or ambitions:** *CIF Ambition: Canadians reduce their greenhouse gas emissions.* *CIF Target: 13.1.1 By 2030, reduce Canada's total greenhouse gas emissions by 40 to 45%, relative to 2005 emission levels. By 2050, achieve economy-wide net-zero greenhouse gas emissions* *GIF Target: 13.2 Integrate climate change measures into national policies, strategies and planning*	**Indicator result**: 43.5% as of March 31, 2024. **Notes:** Target met. A plan is being developed to implement energy performance studies that will make future investment recommendations on areas to achieve additional GHG savings mid to long term within the portfolio.

---

[15] The federal Greening Government Strategy sets a greenhouse gas (GHG) emissions reduction target of 40% below 2005-06 levels by 2025 for facilities and fleets. NRCan has met this target in advance of the 2025 deadline with a GHG emissions reduction starting point of 43.5% from 2005-06 levels.

Target: The Government of Canada will transition to climate resilient operations by 2050 (All Ministers)

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Reduce risks posed by climate change to federal assets, services and operations	Incorporate and strengthen the consideration of climate change in business continuity planning, departmental risk planning or equivalent processes, and program design and delivery considerations **Program**: Internal Services	**Performance indicator**: Inclusion of climate risk considerations in the Real Property Portfolio Considerations and Departmental Greening Strategy **Starting point**: New initiative (not included as of May 2023) **Target**: Included by March 31, 2030	Consistent with *the Federal Adaptation Policy Framework*, NRCan will continue to improve understanding of and take action to reduce the risks posed by climate change to federal assets, services, and operations across the country. These actions include strengthening the consideration of climate change in its key business processes and strategies, including its Real Property Management Framework, Environmental Management Framework, Departmental Greening Strategy, and Real Property Portfolio Strategy, through specific initiatives that include improving insulation and ventilation to harden federal assets against the physical impacts of climate change, and implementing measures to protect shore-based assets from increasingly volatile storms. NRCan has completed 2 Facilities Climate Risk and Vulnerability Assessments that will inform recommendation to increase resiliency of its built portfolio. **Relevant targets or ambitions:** *CIF Ambition: Canadians are well-equipped and resilient to face the effects of climate change* *GIF Target: 13.2 Integrate climate change measures into national policies, strategies and planning*	**Indicator result:** Not included as of March 31, 2024 **Notes:** Results to be achieved in the future. A Real Property Portfolio level Climate Risk and Vulnerability Assessment (CRIVA) has been initiated as of March 31, 2024. A pilot project CRIVA was recently completed at a regional Forestry Centre to inform a broader rollout of CRIVA studies within critical program asset locations across Canada.

Implementation strategies supporting the goal

This section is for implementation strategies that support the goal **"Take action on climate change and its impacts"** but not a specific FSDS target

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Collaborate on emergency management and disaster risk reduction	Facilitate provision of geospatial data to support national and international emergency management efforts **Program**: Core Geospatial Data	**Performance indicator**: Percentage of responses to requests for geospatial data through International Charter: Space and Major Disasters **Starting point**: 100% in 2019-20 **Target**: 100% in 2023-24	Satellite Earth observation uses satellites to gather information about the Earth's oceans, land, climate and populated areas. Satellite geospatial data are critical to taking action on and adapting to climate change by enabling applications and services in many areas that support the health and well-being of Canadians. Satellite Earth observation also provides vital information to support climate science and modelling. The International Charter: Space and Major Disasters is a worldwide collaboration which provides for the charitable and humanitarian acquisition and transmission of satellite data to relief organizations in the event of major disasters. **Relevant targets or ambitions:** *CIF Ambition: Canadians are well-equipped and resilient to face the effects of climate change* *GIF Target: 13.1 Strengthen resilience and adaptative capacity to climate-related hazards and natural disasters in all countries* *GIF Target: 13.2 Integrate climate change measures into national policies, strategies and planning*	**Indicator result:** 100% in 2023-24. **Notes:** Target met.

56

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Support climate change adaptation across Canada	Increase uptake and use of climate change mitigation, resilience and adaptation tools and information by decision-makers **Program**: Innovative Geospatial Solution	**Performance indicator**: Number of stakeholders who acknowledge using NRCan's scientific and technical products in making their decisions **Starting point**: 3 as of March 31, 2023 **Target**: 6 by March 31, 2024	This End User Survey will be used to measure the use of Canada Centre for Mapping and Earth Observation research and development outputs for decision-making or objectives to create new geospatial data and tools towards climate change and its impacts. **Relevant targets or ambitions:** *CIF Ambition: Canadians are well-equipped and resilient to face the effects of climate change* *GIF Target: 13.1 Strengthen resilience and adaptative capacity to climate-related hazards and natural disasters in all countries* *GIF Target: 13.3 Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning*	**Indicator result:** 3 stakeholders as of March 31, 2024. **Notes:** Target not met. The 2023-24 End User Survey had a low response rate (i.e., response rate lower then 20%). This indicator methodology will be revised in 2024-25 to increase accuracy of the results, including to consider other streams of information such as one-on-one meetings with stakeholders.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Other	Enhance logistics support through the Polar Continental Shelf Program (PCSP) for scientific research conducted in the Canadian Arctic **Program**: Polar Continental Shelf program	**Performance indicator**: Number of scientific publications acknowledging Polar Continental Shelf Program support **Starting point**: PCSP support was acknowledged in 143 publications in 2022 **Target**: 143 annually	The logistics support provided by the Polar Continental Shelf Program for field research in the Arctic regions of Canada contributes to the growing body of knowledge about the northern most parts of Canada. With increased scientific information, Canadians can make informed decisions to help reduce the impacts of climate change, such as reducing greenhouse gas emissions. **Relevant targets or ambitions:** *CIF Ambition: Canadians are well-equipped and resilient to face the effects of climate change* *CIF Indicator: No specific indicator* *GIF Target: 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning*	**Indicator result:** PCSP support was acknowledged by 144 publications in 2023. **Notes:** Target met.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Other	Support the development of technologies to reduce energy consumption and a reliance on diesel in mining and milling operations, by means of electrification or hydrogen fuel for example **Program:** Green Mining Innovation	**Performance indicator:** Percentage of innovative mining technologies developed by NRCan that are ready for commercial use **Starting point:** New program (0% as of March 31, 2023) **Target:** 25% by March 31, 2027	Supporting the development of technologies to reduce energy consumption and a reliance on diesel in mining and milling operations will limit the impact of climate change by reducing the environmental footprint of a major industrial sector in Canada. **Relevant targets or ambitions:** *CIF Ambition: Canadians consume in a sustainable manner* *GIF Target: 12.2 By 2030, achieve the sustainable management and efficient use of natural resources.*	**Indicator result:** 15% as of March 31,2024. **Notes:** Results to be achieved in the future. Four technologies are ready for commercialization out of 26 technologies in 2023-24.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Other	Build capacity for decision-making on climate resilience **Program:** Climate Change Adaptation	**Performance indicator:** Percentage of target stakeholders reporting they have the capacity to apply climate change adaptation tools and information for adaptation decision-making **Starting point:** Communities: 15% in 2018 **Target:** Communities: 30% by the end of 2027	The Climate Change Adaptation Division delivers adaptation programming, knowledge assessments, and the Climate Change Adaptation Platform, all contributing to advancing and implementing adaptation measures nationally. Through collaboration and partnerships, this work supports the generation and use of knowledge and expertise, and the development and dissemination of decision-making tools. It results in increased capacity across natural resource sectors and the professions they depend on, better equipping decision-makers to take action on climate change and its impacts. **Relevant targets or ambitions:** *CIF Ambition: Canadians are well-equipped and resilient to face the effects of climate change* *CIF Indicator: 13.3.1 Proportion of municipal organizations who factored climate change adaptation into decision-making processes* *GIF Target: 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries*	**Indicator result:** New data will be collected in 2027. **Notes:** Results to be achieved in the future. The climate change adaptation survey is repeated every five years. The next set of results will be collected in 2027 and made available in 2028. The last survey result in 2022 showed that 22% of community respondents have the capacity to apply climate change adaptation tools and information for adaptation decision-making.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Other	Build capacity for decision-making on climate resilience **Program:** Climate Change Adaptation	**Performance indicator:** Percentage of target stakeholders reporting they have the capacity to apply climate change adaptation tools and information for adaptation decision-making **Starting point:** Natural Resources Businesses: 51% in 2018 **Target:** Natural Resource Businesses: 60% by the end of 2027	The Climate Change Adaptation Division delivers adaptation programming, knowledge assessments, and the Climate Change Adaptation Platform, all contributing to advancing and implementing adaptation measures nationally. Through collaboration and partnerships, this work supports the generation and use of knowledge and expertise, and the development and dissemination of decision-making tools. It results in increased capacity across natural resource sectors and the professions they depend on, better equipping decision-makers to take action on climate change and its impacts. **Relevant targets or ambitions:** *CIF Ambition: Canadians are well-equipped and resilient to face the effects of climate change* *CIF Indicator: 13.3.1 Proportion of municipal organizations who factored climate change adaptation into decision-making processes* *GIF Target: 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries*	**Indicator result:** New data will be collected in 2027. **Notes:** Results to be achieved in the future. The climate change adaptation survey is repeated every five years. The next set of results will be collected in 2027 and made available in 2028. The last survey result in 2022, 36% of business respondents have the capacity to apply climate change adaptation tools and information for adaptation decision-making.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Other	Provide access to, archive and disseminate authoritative geospatial data to support climate change action and decision-making **Program:** Core Geospatial Data	**Performance indicator:** Number of images downloaded by federal departments from the Earth Observation Data Management System (EODMS) to support climate change decision-making **Starting point:** 41,829 in 2022-23 **Target:** At least 41,829 in 2023-24	EODMS data such as National Master Standing Offers (NMSO) and RADARSAT support the production of post-event maps such as earthquake land deformation, ice maps in the North, and emergency flood maps to help local governments understand the impact of natural disasters and carry out risk reduction activities. Additionally, these data support development of information products to measure and communicate climate change impacts, helping to shape Government of Canada policies, strategies, and planning. Finally, effective 2023, NMSO data will be shared with Indigenous Peoples, building on Canada's Indigenous Climate Leadership ambitions. **Relevant targets or ambitions:** *CIF Ambition: Canadians are well-equipped and resilient to face the effects of climate change* *GIF Target: 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries* *GIF Target: 13.2 Integrate climate change measures into national policies, strategies and planning*	**Indicator result:** 64,829 images downloaded by federal departments from the Earth Observation Data Management System (EODMS) to support climate change decision-making in 2023-24. **Notes:** Target met.

Initiatives advancing Canada's implementation of SDG 13 – Climate Action

The following initiatives, supplementing the information outlined above.

PLANNED INITIATIVES	ASSOCIATED DOMESTICS TARGETS OR AMBITIONS AND/OR GLOBAL TARGETS	RESULTS ACHIEVED
Climate change is affecting the safety, health, and quality of life of people across Canada. Every year, the country faces increasing record-breaking climate events, including wildfires, extreme heatwaves, and floods, on top of slow onset climate impacts, such as thawing permafrost and rising sea levels. Canada's first National Adaptation Strategy and the Government of Canada Adaptation Action Plan outline a shared path and sets common direction for a more climate resilient Canada through resilient roads, bridges, sewers, and other infrastructure; healthier communities; enhanced biodiversity and nature conservation; and a climate resilient economy and workers. The Canadian Hazards Information Service (CHIS) provides authoritative, actionable, and timely information about geological hazards, space weather phenomena, and nuclear and radiological incidents. CHIS is augmenting the information it provides for earthquakes through the development of an Earthquake Early Warning system. Upon completion, the early warning system will provide seconds to minutes of warning of a major earthquake to high-risk areas, allowing mitigation measures to be taken for critical infrastructure. NRCan is the lead federal department in the Flood Hazard Identification and Mapping Program (FHIMP), collaborating with provinces and territories to complete flood hazard maps of higher risk areas in Canada and make this flood hazard information accessible to Canadians. The FHIMP will help ensure communities and all people living in Canada are better enabled to prepare for, mitigate, respond to, and recover from the hazards, risks and consequences of flooding linked to the changing climate. The Canadian Forest Service continues to implement the plan to plant two billion incremental trees over 10 years to increase carbon sequestration and help combat climate change and its impacts, while providing co-benefits to communities and ecosystems. This will be accomplished by funding tree planting projects with provinces and territories, for profit and not-for-profit organizations, municipalities, and Indigenous organizations. Canada will continue to support the international collaborative project "moja global"	These efforts contribute to advancing: Global Target 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries. Global Target 13.2 Integrate climate change measures into national policies, strategies and planning. Canadian Indicator Framework (CIF) Ambition 13.2 Canadians are well-equipped and resilient to face the effects of climate change.	In June 2023, the National Adaptation Strategy (NAS) was launched, with NRCan leading the Economy and Workers System. The goal of this system is to help Canada's economy anticipate, manage, adapt, and respond to climate change impacts; and to actively advance new and inclusive opportunities within a changing climate, particularly for communities at greater risk, Indigenous Peoples, and vulnerable economic sectors. The Forest Climate Change program launched a refresh of its science priorities to respond to evolving federal policy, most notably the NAS. This refresh aims to better align the development of knowledge and foundational science with efforts to enhance the resilience of forests and the forest sector to climate change. Additionally, it seeks to improve our understanding of how forests and the forest sector can contribute to achieving net-zero. The Climate-Resilient Coastal Communities Program which received funding through the NAS will provide $41M over 5 years to fund pilot projects that accelerate adaptation at a regional scale that advance systems-based approaches. This new program will align with and support regional priorities for coastal climate change adaptation. The call for proposals was launched in December 2023 and projects are anticipated to start in mid 2024. Under FHIMP, the federal government has created/amended agreements with all provinces and territories for activities to advance Phase 1. Closure reporting is now taking place with the program expansion approved in 2023 and now underway. NRCan has also launched a Flood Map Portal on Geo.ca. on and OpenMaps, a Canada Flood Map Inventory that will host or link to flood hazard products from the FHIMP. The new Contribution Agreement program under FHIMP was successfully launched. Agreements have been signed and executed under the new contribution funding streams which includes working directly with partners in flood modelling research and development and Indigenous Traditional Knowledge inclusion.

PLANNED INITIATIVES	ASSOCIATED DOMESTICS TARGETS OR AMBITIONS AND/OR GLOBAL TARGETS	RESULTS ACHIEVED
(which includes other countries and a variety of funding and scientific/technical organizations) to maintain and refine software and tools to measure, report, and verify (MRV) land-based greenhouse gas emissions and removals. Canada supports this initiative both technically through carbon modelling expertise, as well as through funding to broaden the uptake of the MRV approach in other countries. The Canadian Minerals and Metals Plan (CMMP), through its strategic directions on the Environment and on Science, Technology, and Innovation, identifies climate change adaptation and alternate and renewable energy as areas of provincial, territorial, and federal action, and calls for more government collaboration with stakeholders to develop incentives for the adoption of new and clean technologies and innovative practices. NRCan leads on the Economy and Workers System of the National Adaptation Strategy. In support of its objectives, the department will deliver programming that will: build capacity of professionals such as engineers and planners to apply climate change adaptation tools in their work; improve the ability of natural resource businesses to integrate adaptation plans and strategies, and to support regional-scale pilot projects on adaptation in coastal regions.		In 2023-24, the 2 Billion Trees program signed contribution agreements that represented plans to plant an additional 280.5 million trees. As of March 31, 2024, the program has agreements committed or under negotiation to plant over 553 million trees, representing nearly $1 billion in funding. Funded organizations reported the planting of 46.6 million trees in 2023-24, representing 211 distinct species at more than 1,600 sites across Canada. The Program supported tree planting over some 1,280 hectares for habitat restoration for species at risk and species of interest, and over 23,000 hectares for forest resilience to climate change. As part of the Natural Climate Solutions Fund horizontal initiative, 2BT continued to coordinate within NRCan and interdepartmentally with Environment and Climate Change Canada and Agriculture and Agri-Food Canada to develop robust methods for reporting GHG reductions related to the program. The CMMP Secretariat initiated work to identify additional opportunities for the minerals and metals sector to demonstrate environmental leadership through the adoption of best-available technologies.

GOAL 14: CONSERVE AND PROTECT CANADA'S OCEANS

FSDS Context:

Protecting Canada's coasts and ocean resources is crucial to the livelihood of Canadians, including from the potential risk of oil spills that have an environmental impact on Canada's fisheries and coastlines. NRCan supports marine conservation measures and the Ocean Protection Plan by conducting scientific research and increasing knowledge related to marine geoscience that supports marine spatial planning and the impacts of oil spills on Canada's oceans. NRCan also conducts ongoing research into the extent of Canada's continental shelf in the Atlantic and Arctic Oceans, supporting implementation of international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources.

In 2023-24, NRCan led 4 departmental actions and 5 targets within the target theme of Ocean Protection and Conservation in this FSDS Goal. 2 targets were met, and 3 targets will be completed in the future. NRCan's work included efforts to preserve coastal and marine areas of Canada, advance marine geoscience products, and undertake research and other scientific activities to monitor oil migration in Canadian waters. NRCan met its aim to provide marine geoscience research in Canada's offshore, strengthening the government's goal of achieving shared ecological, economic, cultural and social objectives in the marine environment. The department also met its goal of completing 17 resource and economic assessments to advance Canada's goal of preserving 25% of coastal and marine areas. NRCan continues to undertake scientific activities to support Canada's continental shelf submissions in the Atlantic Ocean and Arctic Ocean to grant Canada jurisdiction, including the exploration, sustainable use, and conservation of the living and non-living resources on the seafloor and below, of the entire continental shelf.

NRCan is making progress in support of SDG 14 – Life Below Water. The department plans to collaborate with the University of Stockholm to deliver geoscience and bathymetric surveys in the central Arctic Ocean in 2025, 2026 and 2027. This data will be shared for international use and contribute to Canada's role in the UN Decade of Ocean Science for Sustainable Development (2021-2030).

Target theme: Ocean Protection and Conservation

Target: Conserve 25% of marine and coastal areas by 2025, and 30% by 2030, in support of the commitment to work to halt and reverse nature loss by 2030 in Canada, and achieve a full recovery for nature by 2050 (Minister of Fisheries, Oceans and the Canadian Coast Guard)

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Build knowledge of coastal and marine ecosystems and marine protected areas	Advance marine geoscience products to inform Marine Spatial Planning in impact Assessments, as well as cumulative effects and project assessments in the offshore **Program**: Geoscience for Sustainable Development of Natural Resources	**Performance indicator**: Percentage of marine geoscience knowledge products and associated data releases that inform DFO-led Marine Spatial Planning, cumulative effects assessments (e.g., RA) or project assessments in the offshore **Starting point**: 0% as of March 31, 2024 **Target**: 100% by March 31, 2028	NRCan, through the Marine Geoscience for Marine Spatial Planning Program (MGMSP), provides marine geoscience research to inform impact assessment and other decision-making processes in Canada's offshore. MGMSP's outputs contribute to the Government of Canada's Marine Spatial Planning goal of achieving shared ecological, economic, cultural, and social objectives in the marine environment, including conservation. **Relevant targets or ambitions:** *CIF Target: Conserve 25% of Canada's oceans by 2025, working towards 30% by 2030.* *CIF Indicator: 14.1.1 Proportion of marine and coastal areas conserved* *GIF 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.*	**Indicator result**: 100% **Notes:** Target met. NRCan conducted geoscience studies in the Pacific and Atlantic offshore areas and collected valuable geophysical, geological and oceanographic data that are undergoing analysis. Data and knowledge products, including 9 external publications and 10 open file reports shared within the open geoscience framework were released in 2023-24.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Protect, manage, and restore marine and coastal areas	Provide resource assessment to advance Canada's goal of preserving 25% of coastal and marine areas through networks of protected areas and other effective area-based conservation measures **Program**: Geoscience for Sustainable Development of Natural Resources	**Performance indicator**: Number of completed resource and economic assessments by NRCan for protected areas that are proposed by Fisheries and Oceans Canada, ECCC, and Parks Canada **Starting point**: 14 as of March 31, 2020 **Target**: 17 by March 31, 2024	The Marine Conservation Targets program will continue to develop and apply geological methods and assessment tools to provide scientific knowledge on offshore natural resources in support of Canada's conservation targets for 2025. This knowledge will allow DFO, ECCC, and PCA add to their understanding of these offshore lands and the natural resources found within the boundaries of proposed protected areas, thus supporting Canada in achieving its goal of protecting 10% of Canada's coastal and marine areas (as a percentage of total marine territory) by 2020, and 25% by 2025 and 30% by 2030. To date, Canada has protected 14.66% of its offshore lands or 824,821 Km2. **Relevant targets or ambitions:** *CIF Target: Conserve 25% of Canada's oceans by 2025, working towards 30% by 2030* *CIF Indicator: 14.1.1 Proportion of marine and coastal areas conserved* *GIF Target: 14.5.1 Coverage of protected areas in relation to marine areas*	**Indicator result:** 17 completed resource and economic assessments by NRCan for protected areas that are proposed by Fisheries and Oceans Canada, ECCC, and Parks Canada as of March 31,2024. **Notes:** Target met. The Marine Conservation Targets program developed the following 3 assessments in 2023-24: Hydrocarbon resource assessment of Nares Strait and central Ellesmere Island, Nunavut; Qualitative petroleum resource assessments, process and examples from Atlantic Canada; Hydrocarbon resource assessment of Hudson Bay, northern Canada.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Other	Continue to undertake science activities to support Canada's continental shelf submissions in the Atlantic Ocean and Arctic Ocean beyond 200 nautical miles and advise Global Affairs Canada on scientific and technical issues **Program**: Geological Knowledge for Canada's Onshore and Offshore Land	**Performance indicator**: Number of science activities that aim at securing international recognition of Canada's outer limits beyond the 200 nautical mile Exclusive Economic Zone (EEZ) **Starting point**: New initiative (0 as of May 1, 2023) **Target**: Four marine geoscience surveys by March 31, 2027	Canada ratified the UNCLOS Treaty in 2003 and implemented Article 76 of the treaty to delineate its continental shelf beyond 200 nautical miles in the Atlantic and Arctic oceans. The program received renewed funding in Budget 2023 to acquire new data in the Arctic Ocean to support Canada's revised outer limits. Eventually Canada will have jurisdiction, including the exploration, sustainable use, and conservation of the living and non-living resources on the seafloor and below, of the entire continental shelf through this process. **Relevant targets or ambitions:** *CIF Target: Conserve 25% of Canada's oceans by 2025, working towards 30% by 2030* *CIF Indicator: 14.1.1 Proportion of marine and coastal areas conserved* *GIF Target: 14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention and the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want"*	**Indicator result:** 0 science activities that aim at securing international recognition of Canada's outer limits beyond the 200 nautical mile Exclusive Economic Zone (EEZ) as of March 31, 2024. **Notes:** Results to be achieved in the future. Canada is working to support three surveys to the central Arctic Ocean in 2025, 2026 and 2027, that will complete the mapping of the full extents of Lomonosov Ridge, Alpha Ridge and Mendeleev Rise. In the past year the UNCLOS Program completed operational and technical planning for a survey off Nova Scotia and Newfoundland aimed at testing scientific equipment that will be used in the central Arctic Ocean. The program is engaged in discussion with Swedish Polar Research Secretariat regarding the charter of the Research Icebreaker Oden, and the Canadian Coast Guard regarding the use of the CCGS Louis St-Laurent, during the surveys in the Arctic Ocean.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Other	Conduct research to develop and acquire science-based information and mitigation strategies on how oil migrates through Canadian waters **Program**: Energy Innovation and Clean Technology	**Performance indicator**: Number of science-based presentations, publications, and research reports on oil spills and their fate and behaviour in Canadian waters **Starting point**: 0 in 2021-22 **Target**: 12 by 2025-26 Marine Conservation Targets (MCT) Initiative;	Adding to our scientific understanding of how oil migrates through Canadian waters will serve as the basis for efforts to ensure Canada's oceans are conserved, by informing environmental assessments, clean-up methods, and evidence-based decision-making related to marine and coastal protection. **Relevant targets or ambitions:** *CIF Ambition: Canada protects and conserves marine areas and sustainably manages ocean fish stocks* *CIF Target: 14.1.1 Conserve 25% of Canada's oceans by 2025, working towards 30% by 2030* *GIF 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*	**Indicator result**: 11 science-based presentations, publications, and research reports on the behaviour and fate of petroleum products in Canadian waters have been made as of March 31, 2024. **Notes:** Results to be achieved in the future.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Other	Conduct research to develop and acquire science-based information and mitigation strategies on how oil migrates through Canadian waters **Program**: Energy Innovation and Clean Technology	**Performance indicator**: Number of science-based presentations, publications, and research reports on oil spills and their fate and behaviour in Canadian waters **Starting point**: 0 in 2021-22 **Target**: 20 by 2026-27 – Multi-Partner Research Initiative (MPRI)	Adding to our scientific understanding of how oil migrates through Canadian waters will serve as the basis for efforts to ensure Canada's oceans are conserved, by informing environmental assessments, clean-up methods, and evidence-based decision-making related to marine and coastal protection. **Relevant targets or ambitions:** *CIF Ambition: Canada protects and conserves marine areas and sustainably manages ocean fish stocks* *CIF Target: 14.1.1 Conserve 25% of Canada's oceans by 2025, working towards 30% by 2030* *GIF 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*	**Indicator result**: No science-based presentations, publications, and research reports on oil spills and their fate and behaviour in Canadian waters were delivered in 2023-24. **Notes:** Results to be achieved in the future. A total of 21 contribution agreements were signed with partners to improve understanding of how oil spills behave, how to best contain and clean them, and how to best mitigate against environmental impacts.

Initiatives advancing Canada's implementation of SDG 14 – Life Below Water

The following initiatives demonstrate how NRCan programming supports the 2030 Agenda and the SDGs, supplementing the information outlined above.

PLANNED INITIATIVES	ASSOCIATED DOMESTICS TARGETS OR AMBITIONS AND/OR GLOBAL TARGETS	RESULTS ACHIEVED
Upcoming geoscience and bathymetric surveys in the central Arctic Ocean in 2025, 2026 and 2027 by the UNCLOS Program will share data with international efforts to map the world's seafloor via the International Bathymetric Chart of the Arctic Ocean (IBCAO) and Seabed 2030, forming part of Canada's contribution to the UN Decade of Ocean Science for Sustainable Development (2021-2030).	These efforts contribute to advancing: Global 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. Global Target 14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want"	Geoscience data for the central Arctic Ocean previously acquired is being used to identify geohazards in areas where subsea telecommunications cables may be installed in the future. This work is an ongoing collaboration with Stockholm University and the Swedish Polar Research Secretariat. Planning of the upcoming surveys in the central Arctic Ocean is on track for the future and well advanced. Through the program, Natural Resources Canada is working with Global Affairs Canada and Fisheries and Oceans Canada on hosting a science planning workshop and the 14th Arctic Ocean Workshop with international partners in 2025.

GOAL 15: PROTECT AND RECOVER SPECIES, CONSERVE CANADIAN BIODIVERSITY

FSDS Context:

Sustainable forest management is contingent upon healthy forests, but climate change brings challenges that could seriously impact the ecological integrity of forest health. NRCan conducts research and provides information and advice to provinces, territories, Indigenous Peoples, and the private sector to promote the protection, sustainable management, and efficient use of forest resources. The department uses scientific research, technology, and collaboration to protect forest resources from pest outbreaks, as well as from wildfire threats. NRCan also plays a large role in building capacity for Indigenous Peoples in connection to lands and forests. This includes the promotion of environmental stewardship, job creation, and the sustainable use and management of forest resources.

4 departmental actions supported this FSDS goal in 2023-24, involving developing forest products to strengthen the knowledge of forest ecosystems and contribute to the environmental sustainability of Canada's forests; supporting sustainable forests to maintain Canada's annual timber harvest at or below sustainable wood levels; and disseminating information about forest pests to mitigate the loss of biodiversity, tree growth reduction and mortality and respond to invasive alien species in the name of forest health across Canada.

These 3 targets were met, however, NRCan was not able to meet its target of transmitting 52 research publications on the science and technology behind forest health protection. The department fell slightly short of this goal, circulating 49 publications in 2023-24 instead.

To advance Canada's implementation of SDG 15 – Life on Land, NRCan will continue to collect data related to sustainable forest management and take efforts to minimize forest degradation. Through ongoing engagements, provisional working definitions of forest degradation were developed for Canadian Council of Forest Ministers (CCFM) discussion, and initial indicators for a forest degradation reporting framework have been proposed.

Target theme: Conservation of Land and Freshwater

Target: Between 2023 and 2026, Canada's sustainable wood supply level (guided by sustainable forest management policies to reflect the current unique social, environmental and economic characteristics of managed forests), exceeds the annual timber harvests (Minister of Natural Resources)

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Better understand lands and forests	Advance science and technology on forest health protection **Program**: Pest Risk Management	**Performance indicator**: Number of NRCan publications pertaining to forest pests and related risks, surveillance solutions, and response solutions that are developed annually **Starting point**: 52 in 2018-19 **Target**: 52 publications or more annually	Sustainable forest management is contingent upon healthy forests. Outbreaks of native forest insects and diseases, and the introduction of invasive alien species result in tree growth reduction and mortality, which may negatively affect the ecological integrity of forests. Climate change could amplify these impacts. Advancing pest risk management science and technology to prevent, prepare for, and respond to pests supports the protection of forest health across Canada and contributes to maintaining Canada's annual timber harvest at or below sustainable wood supply level. Scientific publications are one of the primary forms of disseminating research results. **Relevant targets or ambitions:** *CIF Ambition: Canada sustainably manages forests, lakes and rivers* *GIF 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*	**Indicator result:** 49 publications in 2023-24. **Notes:** Target not met. The number of scientific publications varies from year to year due to various factors. For example, they are generally lower at the beginning of research projects and higher towards the end, when more results are available to write scientific articles. The lower-than-expected number of publications for 2023-24 is still within the expected annual range of variation.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Promote participation in Canada's forest sector and support the transition to a sustainable economy	Develop innovative forest products and decision tools that strengthen knowledge of forest ecosystems and contribute to the environmental sustainability of Canada's forests **Program**: Sustainable Forest Management; Fibre Solutions; Cumulative Effects	**Performance indicator**: Percentage of innovative forest products and decision tools informed by NRCan research that contributes to the Environmental Sustainability of Canada's forests **Starting point**: 100% **Target**: 95% annually	NRCan develops scientific knowledge products and decision-making tools about Canada's forests that are used by forest decision makers (e.g., provinces, territories, Canadian industry, private land-owners, etc.) to enable sustainable forest management. NRCan products and tools contribute to a better understanding of forest conditions and changes in response to natural disturbance, climate change and forest management practices. The innovative products and decision tools developed by participating programs strengthen knowledge of forest ecosystems and contribute to the environmental sustainability of Canada's forests. These innovations support the forest sector to maximize the value of Canada's forests while maintaining healthy forest ecosystems by reducing existing and potential environmental impacts. New products and decision tools support sustainable forest management in Canada's forests and maintaining harvest levels below sustainable wood supply levels. **Relevant targets or ambitions:** *CIF Ambition*: Canada sustainably manages forests, lakes and rivers *GIF 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	**Indicator result:** 100% in 2023-24. **Notes:** Target met. All funded projects contributed to the environmental sustainability of Canada's forests. Canadian Wood Fibre Centre collaborative research advanced knowledge and techniques in the area. Results were disseminated widely within the forest sector.

Target theme: Species Protection and Recovery

Target: By 2026, increase the percentage of species at risk listed under federal law that exhibit population trends that are consistent with recovery strategies and management plans to 60%, from a baseline of 42% in 2019 (Minister of Environment and Climate Change; Minister of Fisheries, Oceans and the Canadian Coast Guard.

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Work with partners to enhance foundational knowledge of species, habitats and ecosystems	Support sustainable management of Canada's forests, in collaboration with provinces and territories **Program**: Sustainable Forest Management	**Performance indicator**: Amount in cubic meter (m^3) of wood harvested annually compared to sustainable wood supply **Starting point**: 141 million m^3 total harvest versus 215 million m^3 in wood supply in 2020 (State of Canada's Forests Report, 2022) **Target**: Annual harvest is at or below sustainable wood supply levels	Sustainable forest management is a shared responsibility across all governments, the private sector and civil society for using and caring for forests to maintain their environmental, social and economic value and benefits over time. NRCan promotes responsible and transparent practices in the forest sector and supports provinces and territories in their role as forest managers to help ensure Canada's forests are sustainable for years to come. Supporting sustainable forest management in Canada directly contributes to the goal of sustainably managed land and forests, and helps to maintain Canada's annual timber harvest at or below sustainable wood levels. Sustainable forest management includes consideration of knowledge and data concerning ecosystems, habitats and species. NRCan develops scientific knowledge products and decision-making tools about Canada's forests that are used by forest decision-makers (e.g., provinces, territories, Canadian industry, private land owners, etc.) to enable sustainable forest management. **Relevant targets or ambitions:** *CIF Ambition: Canada sustainably manages forests, lakes and rivers* *GIF 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*	**Indicator result:** 147.3 million m^3 of wood was harvested compared to an available wood supply of 215 million m^3 in 2021. **Notes:** Target met. Source: State of Canada's Forests Report 2023.

Implementation strategies supporting the goal

This section is for implementation strategies that support the goal **"Protect and recover species, conserve Canadian biodiversity"** but not a specific FSDS target

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Prevent, detect, respond to, control and manage invasive alien species	Increased availability of scientific knowledge and advice pertaining to forest pests and related risks **Program**: Pest Risk Management	**Performance indicator**: Number of NRCan publications pertaining to forest invasive alien species and related risks, surveillance solutions, and response solutions that are developed annually. **Starting point**: 14 in 2022-23 **Target**: 14 publications or more annually	Mitigating the loss of biodiversity requires healthy forests. The introduction of invasive alien species can result in tree growth reduction and mortality, which may negatively affect biodiversity and the ecological integrity of forests. Climate change could amplify these impacts. Advancing pest risk management science and technology to prevent, prepare for, and respond to invasive alien species supports the protection of forest health across Canada. Scientific publications are one of the primary forms of disseminating research results. **Relevant targets or ambitions:** *CIF Ambition: 15.4 Canada sustainably manages forests, lakes and rivers* *GIF 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*	**Indicator result:** 15 publications in 2023-24. **Notes:** Target met. The number of scientific publications varies from year to year due to various factors. For example, they are generally lower at the beginning of research projects and higher towards the end, when more results are available to write scientific articles.

Initiatives advancing Canada's implementation of SDG 15 – Life on Land

The following initiatives demonstrate how NRCan programming supports the 2030 Agenda and the SDGs, supplementing the information outlined above.

PLANNED INITIATIVES	ASSOCIATED DOMESTICS TARGETS OR AMBITIONS AND/OR GLOBAL TARGETS	RESULTS ACHIEVED
Canada will continue to monitor and report progress toward sustainable forest management and advance the monitoring systems and technologies used, including work to develop common understanding and systematic monitoring of forest degradation.	These efforts contribute to advancing: Global 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 Canadian Indicator Framework (CIF) Ambition 15.4 Canada sustainably manages forests, lakes and rivers. Canadian Indicator Framework (CIF) Ambition 15.4 Canada sustainably manages forests, lakes and rivers	Through ongoing engagement with Indigenous stakeholders, Industry, Environmental NGOs, Academic stakeholders, and other government departments, provisional working definitions of forest degradation were developed for Canadian Council of Forest Ministers (CCFM) discussion, and initial indicators for a forest degradation reporting framework have been developed and proposed to the CCFM. Enhancements to national data collection for reporting on new forest degradation indicators and previously unreported Sustainable Forest Management indicators are underway and will be implemented over the next two fiscal years.

GOAL 17:
STRENGTHEN PARTNERSHIPS TO PROMOTE GLOBAL ACTION ON SUSTAINABLE DEVELOPMENT

FSDS Context:

Diverse and inclusive partnerships are required at the local, regional, national, and global levels to achieve the United Nations 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals. To advance these ambitions, NRCan leads the collection, monitoring, and dissemination of space-based data and information to protect the environment and to provide critical services on which Canadians rely. Through its Innovative Geospatial Solutions Program, NRCan is leading the day-to-day operations of the Satellite Earth Observation initiative to collect and disseminate earth observation data and is supporting its national and international partners in monitoring the environment and ecosystems in Canada. Additionally, NRCan is strengthening global partnerships on critical minerals to increase the supply of responsibly sourced critical minerals, and supporting the development of domestic and global value chains for the green and digital economy.

To meet this FSDS Goal in 2023-24, NRCan led 2 departmental actions, with 1 target met, and 1 uncompleted. NRCan was successful in meeting its international commitment action, which involved engaging with global stakeholders to advance critical minerals geoscience, research and development, investment attraction, and more. The department also sought to protect Canadians and international partners at large from the impacts of natural and human-induced hazards through collecting and disseminating earth observation data. The target for satellite data was not met due to wildfires in the Northwest Territories and Northern Alberta, which impacted NRCan's ability to conduct outcomes assessments.

NRCan is taking action to advance Canada's implementation of SDG 17 – Partnership for the Goals. NRCan participated at the Extractive Industries Transparency Initiative (EITI), an international forum on transparency in the mining, oil and gas sectors, exemplifying Canada as a global leader in responsible governance. Canada also implemented the *Extractive Sector Transparency Measures Act* (ESTMA) and its components.

Implementation strategies supporting the goal

This section is for implementation strategies that support the goal **"Strengthen partnerships to promote global action on sustainable development"** but not a specific FSDS target

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Work with partners to monitor and protect our ecosystems through space-based services and technologies	Leverage our world-class scientific innovation and partnerships to protect Canadians and our ecosystems from the impacts of natural and human-induced hazards **Program**: Innovative Geospatial Solutions	**Performance indicator**: Percentage of satellite station uptime (NRCan only)[16] **Starting point**: 99.7% in 2018-2019 **Target**: Maintain 99.7% satellite station uptime	In collaboration with ECCC and ISED, NRCan is leading the day-to-day operations of the Satellite Earth Observation initiative to collect and disseminate earth observation data. Through these activities, NRCan is supporting our national and international partners in monitoring the environment to ensure the protection of Canadians and our ecosystems from the impacts of natural and human-induced hazards. **Relevant targets or ambitions:** *CIF Ambition: Canada fosters collaboration and partnerships to advance the SDGs*	**Indicator result:** Satellite station uptime was 97.8% in 2023-24. **Notes:** Target not met. From August 7 to September 7, 2023, a satellite station was impacted by wildfires in the Northwest Territories and Northern Alberta, affecting the transmission of satellite imagery.

---

[16] "Uptime" is the measure of time that satellite ground stations are available and working, as a percentage of total time in one year (24 hours per day, 365 days per year).

IMPLEMENTATION STRATEGY	DEPARTMENTAL ACTION	PERFORMANCE INDICATOR STARTING POINT TARGET	HOW THE DEPARTMENTAL ACTION CONTRIBUTES TO THE FSDS GOAL AND TARGET AND, WHERE APPLICABLE, TO CANADA'S 2030 AGENDA NATIONAL STRATEGY AND SDGS	RESULTS ACHIEVED
Advance international collaboration on critical minerals	Support Canada's international commitments and engagements in critical minerals-related geoscience, R&D, trade and investment attraction, and transparency and sustainability initiatives **Program**: Provision of Federal Leadership in the Minerals and Metals Sector	**Performance indicator**: Percentage of funding unlocked for the Global Partnerships Initiative **Starting point**: New initiative (0% as of 2022) **Target**: 100% by December 31, 2023	The Global Partnerships Initiative is part of the Canadian Critical Minerals Strategy, which seeks to increase the supply of responsibly sourced critical minerals and support the development of domestic and global value chains for the green and digital economy. **Relevant targets or ambitions:** *CIF Ambition: Ensure access to affordable, reliable, sustainable and modern energy for all* *GIF Target: 17.16 By 2030, increase substantially the share of renewable energy in the global energy mix*	**Indicator result**: 100% of funding unlocked for the Global Partnerships Initiative December 31, 2024. **Notes:** Target met. Under the Global Partnerships Initiative, NRCan has accomplished the following in 2023-24: Advanced its priorities on sustainability, investment attraction, R&D and innovation through bilateral collaboration mechanisms with its major trading partners. Hosted and participated in multilateral fora and events, including the Extractive Industry Transparency Initiatives (EITI), Mineral Security Partnership (MSP), the Conference on Critical Material and Minerals (CCMM), and the International Energy Agency (IEA). Advanced research collaborations with the UK (University of Exeter) on lithium ecotoxicity, and Centre for Resource Recovery and Recycling (CR3). Launched the Critical Minerals Traceability Projects Grants and supported transparency work at the IEA. Contributed to the operations of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) Secretariat and the World Bank's Climate Smart Mining Initiative. Supported the University of BC to train mining sector employees in mineral-rich developing countries, as part of the Energy Resource Governance Initiative (ERGI). Actively participated in EITI and successfully delivered on Canada's legislative commitments under *the Extractive Sector Transparency Measures Act* (ESTMA), including updating the ESTMA Data Portal.

Initiatives advancing Canada's implementation of SDG 17 – Partnerships for the Goals

The following initiatives demonstrate how NRCan programming supports the 2030 Agenda and the SDGs, supplementing the information outlined above.

PLANNED INITIATIVES	ASSOCIATED DOMESTICS TARGETS OR AMBITIONS AND/OR GLOBAL TARGETS	RESULTS ACHIEVED
Natural Resources Canada is committed to being a global leader in increasing transparency and good governance. Leading by example, the *Extractive Sector Transparency Measures Act* (ESTMA) increases extractive sector transparency in Canada. Canada was also the first jurisdiction to develop guidance for industry, playing an integral role in shaping the emerging global standard on mandatory reporting for the extractive sector, and also the first jurisdiction to launch a compliance program to improve data integrity, and data portal to improve data accessibility. Leveraging expertise from implementing the ESTMA, Canada additionally plays a prominent role in the Extractive Industries Transparency Initiative (EITI), an international transparency standard in the mining, oil and gas sectors that requires implementing countries to annually report on revenue collection and allocation, among other issues, in the extractive sector. The EITI Board is comprised of implementing countries, supporting countries, supporting companies and civil society organizations. Canada continues to play an active role in the initiative and will host the EITI Board meeting in February 2024.	These efforts contribute to advancing: Global Target 17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection.	Canada strengthened its leadership at the Extractive Industries Transparency Initiative (EITI), an international forum on transparency in the mining, oil, and gas sectors. Canada continued global leadership in transparency through the implementation of the *Extractive Sector Transparency Measures Act* (ESTMA). In 2023-24 over 1400 report submissions were validated through the NRCan eServices Portal, including 561 unique reports received disclosing over CAD$244B in payments to nearly 1300 payees in 107 countries around the world. ESTMA compliance activities (e.g. reviews, mailouts) reached more than 800 entities, supporting data integrity and effective administration of the *Act*. The ESTMA Data Portal, a collaboration between NRCan and Statistics Canada that first launched in September 2022, was updated in September 2023 to improve functionality and ease of use. NRCan collected feedback from stakeholders through meetings, events, and an online survey to support this update.

Integrating Sustainable Development

Natural Resources Canada will continue to ensure that its decision-making process includes consideration of FSDS goals and targets through its Strategic Environmental Assessment (SEA) process. An SEA for a policy, plan or program proposal includes an analysis of the impacts of the given proposal on the environment, including on relevant FSDS goals and targets.

Public statements on the results of NRCan's assessments are made public when an initiative has undergone a detailed SEA (see here) The purpose of the public statement is to demonstrate that the environmental effects, including the impacts on achieving the FSDS goals and targets, of the approved policy, plan or program have been considered during proposal development and decision making.

NRCan completed 18 detailed SEAs in 2023-24.

Ryan Bray / Parks Canada