Natural Resources Canada

2023-24

Departmental Plan

Originally signed by

The Honourable Jonathan Wilkinson, P.C., M.P.

Minister of Natural Resources





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From the Minister

Around the world, businesses big and small, labour organizations and governments are in a race to reduce carbon emissions, seize extraordinary economic opportunities and avoid the destructive impacts of climate change. The economic future of Canadians depends on us making the right choices for Canada to thrive in a low-carbon world. The good news is that Canada is very well positioned to take advantage of the opportunities that this global shift to a net-zero economy presents: our abundant natural resources and our ability to develop them sustainably and inclusively are significant competitive advantages.

Canada's global leadership will be grounded in an unwavering commitment to the sustainability of our energy, forest and mineral sectors, including the workers and communities that depend on them. This Departmental Plan outlines how Natural Resources Canada (NRCan) will support growth by creating prosperity and sustainable jobs in every region of this country while ensuring we



achieve our goal of net-zero emissions by 2050. We will work with international and domestic partners to ensure our natural resource products are environmentally sourced and competitively priced on international markets.

From critical minerals to hydrogen; from electric cars and buses to a bigger, higher-capacity power grid; from low-carbon building products to small modular reactors and other clean technologies — we are talking about an economy that promises new opportunities for everyone.

Given significant regional differences, the best opportunities in a clean energy transition will also be different across the country. Through the Regional Energy and Resource Tables, we will leverage partnerships with provinces, territories and Indigenous Peoples to identify and harness opportunities to decarbonize electricity and increase the adoption of clean energy technologies.

Energy affordability and security has been brought to the forefront, where Canada is positioned to improve market access and competitiveness. Critical minerals are the building blocks for the green and digital economy. As demand grows, Canada's Critical Minerals Strategy will be the road map to strengthen their development and supply chain resiliency.

As we build an economy that works for *all* Canadians, we must also contend with the realities of climate change and extreme weather. The plan presented here outlines the adaptation strategies, emergency preparedness tools and nature-based solutions that we will employ at both targeted and national levels to improve our understanding of climate-related disasters and mitigate the impacts on communities.

In all its work, NRCan remains committed to moving along the path to full reconciliation with Indigenous Peoples. We support the implementation of the United Nations Declaration on the

Rights of Indigenous Peoples Act, and we will strive to develop shared governance and equitable distribution of the benefits of our natural resources. NRCan will also promote inclusion, diversity, equity and accessibility through engagement with women, racialized peoples, persons with disabilities and the LGBTQ2+ community. Recognizing the importance of engaging youth on climate and natural resource issues, the NRCan Youth Council will provide its perspectives to inform policy processes.

Rigorous and evidenced-based science will guide our actions and our innovative investments. Our scientists in the forest, energy, mineral and mining sectors are proven experts. They have consistently demonstrated reliability, and they are committed to helping the natural resource sectors and the communities that host them thrive. Constructive engagements with federal partners, provinces, territories, Indigenous Peoples and other local and foreign stakeholders will remain central to what we do.

We will seize on our key opportunities today so that we can pass on an environment and a prosperous economy that will help our children, and their children, flourish for the next many decades.

The Honourable Jonathan Wilkinson, P.C., M.P. Minister of Natural Resources



Plans at a glance

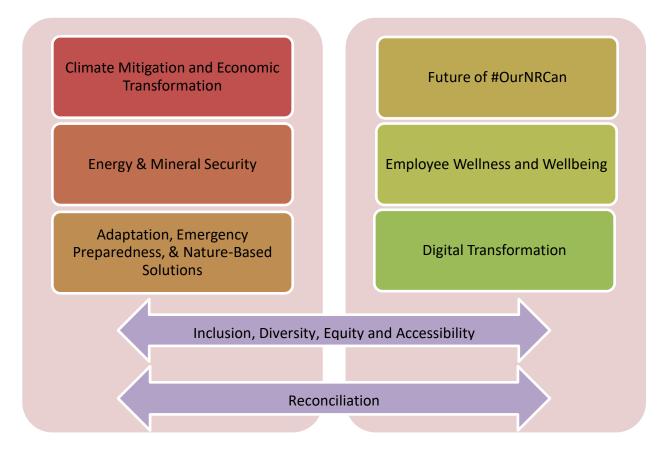
Canada's vast natural resource sectors contribute significantly to economic growth across the country and play a vital role in creating jobs, fostering growth and prosperity for Canadians. Real gross domestic product of the energy, forestry, mining and mineral subsectors all rose in the third quarter of 2022 - the fourth quarterly increase in the last five years. Accounting for approximately 17.1% of gross domestic product, 51% of total exported Canadian goods and supporting over 1.6 million direct and indirect jobs, the natural resources sector remains a source of prosperity and innovation for Canadians.

As a science-based department, Natural Resources Canada develops policies and programs that enhance the contribution of the natural resources sector to the economy, improve the quality of life for all Canadians and conduct innovative science in facilities across Canada to generate ideas and transfer technologies. The Department also represents Canada at the international level to meet the country's global commitments related to the sustainable development of natural resources.

By engaging with foreign and domestic partners, including Indigenous Peoples, the Department is focused on delivering on the commitments in the Minister of Natural Resources' Mandate Letter and key activities under its three Core Responsibilities:

- Natural Resource Science and Risk Mitigation;
- Innovative and Sustainable Natural Resources Development; and,
- Globally Competitive Natural Resource Sectors.

In 2023-24, NRCan will focus on the following priorities:



Three of the priorities are centered on seizing opportunities towards a low carbon future driven by Canada's natural resources. The remaining priorities are focused on modernization and transforming how NRCan delivers its business.

Underpinning these priorities, NRCan will advance the principles of inclusion, diversity, equity and accessibility (IDEA) as a horizontal priority. Using Gender-based Analysis Plus (GBA Plus), the Department will consider the impacts on vulnerable, marginalized, and underrepresented groups and ensure that concrete IDEA measures are embedded in policy and program design. The Department has also created space for youth voices with the establishment of NRCan's Youth Council, who will share their perspectives on climate and natural resource issues.

Similarly, NRCan will also continue to advance reconciliation with Indigenous peoples to support the implementation of the *United Nations Declaration on the Rights of Indigenous Peoples Act*ⁱⁱ (UNDRIP). The Department's Pathways to Reconciliation Action Plan consists of concrete, measurable commitments to develop capacity and enable meaningful engagement with Indigenous partners. NRCan will support Indigenous economic reconciliation in the natural resources sectors by advancing shared governance of Canada's resources, building meaningful relationships and partnerships with Indigenous organizations and communities,

and developing a new national benefits-sharing framework to ensure that Indigenous communities benefit from major resource projects.

Climate mitigation and economic transformation

The Government of Canada is committed to taking action to address the climate crisis by supporting climate change mitigation and advancing the net-zero transition. We are forging alliances with provincial and territorial partners and Indigenous peoples, innovating in all natural resources sectors and supporting sustainable jobs for Canadians as a key federal department with responsibilities for Canada's 2030 Emissions Reduction Plan.

Through the Regional Energy and Resource Tables,ⁱⁱⁱ NRCan is seeking to work with each individual province and territory, in collaboration with Indigenous partners, to identify and accelerate place-specific opportunities where Canada can hold a comparative advantage in a global, low-carbon economy. With nine Tables established to date, the Department will continue its dialogue with the goal of establishing Regional Tables with every province and territory in 2023.

The government will continue to work with provinces, territories and Indigenous peoples to identify and advance opportunities to decarbonize and expand Canada's electricity systems. The work on electrification to build up a robust, affordable and competitive clean grid will be a key priority going forward. Through the Smart Renewables and Electrification Pathways Program, iv NRCan will invest \$1.56 billion over 8 years to advance smart renewable energy projects to modernize the clean grid of the future. NRCan will also implement the \$250 million Electricity Predevelopment Program to support predevelopment activities associated with clean electricity, as well as launching the Enabling Responsible Small Modular Reactor (SMR) Deployment Program, that will provide \$69.9 million to support research to address waste from SMRs, develop supply chains, strengthen international nuclear cooperation agreements, and enhance domestic safety and security. Through the Canada Green Buildings Strategy, the Department will prepare governments and Canadians to reach net-zero emissions in the building sector by 2050. Regulatory standards and an incentives framework will support the transition by requiring EnerGuide ilabelling at time of sale to improve home energy performance and lower emissions and create a Climate Adaptation Home Rating Program.

Continued innovation in clean energy technologies will help Canada meet its climate objectives while supporting Canada's competitiveness throughout the global energy transformation. Battery technology is essential to the global energy transition. To fight climate change, we need to power our modern technology with renewables and provide energy storage solutions. To this end, NRCan will develop a sustainable battery innovation and industrial ecosystem in Canada. In collaboration with other federal departments, NRCan will produce a blueprint to support the establishment of a domestic battery value chain. This will include the promotion of sustainable battery innovation, advancing technologies for extraction and processing of battery minerals, and working with stakeholders to build on strategic priorities related to battery development.

To ensure that Canada seizes the economic opportunities of the net-zero transition in a way that is fair and inclusive for all Canadians, NRCan, in collaboration with ESDC, is working to take comprehensive action – including legislation – to create good, well-paying jobs. In particular, the

Government's proposed legislation on sustainable jobs will lay the foundation for effective federal action, promote economic growth, and empower workers across Canadas to lead the global energy transition for decades to come.

To improve access to federal resources to support the transition of diesel-reliant communities to clean energy, the Government of Canada established the Indigenous and Remote Clean Energy Hub to serve as a single window to federal programs. The Hub is co-administered by NRCan, ISC, and CIRNAC with the support of ECCC and INFC. Through the Clean Energy for Rural and Remote Communities program, viii NRCan will provide an additional \$233 million until 2027 for clean energy projects to reduce fossil fuel reliance for heat and power in Indigenous, rural and remote communities across Canada. The program will support clean energy solutions, creating sustainable jobs and economic development opportunities with communities.

Energy and mineral security: Oil and gas pathways and critical minerals

Canada's energy and mineral security is heavily reliant on the ability to get Canadian natural resources to global markets and building strategic partnerships with other countries to support critical supply and value chains. NRCan is committed to supporting the expansion of existing markets and the development of new markets for Canada's natural resources, including clean fuels.

The conflict in Ukraine has brought issues of energy security and affordability to the forefront where Canada can improve market access and competitiveness for its resource sectors. Efforts to foster increased opportunities for Canadian companies in the natural resource sectors will continue to be part of NRCan's international engagements. In keeping with the Canada's Indo-Pacific Strategy, ix the Department's engagements in the region will contribute to strengthening supply chains and facilitating stronger business-to-business relationships.

NRCan, together with Global Affairs Canada, continues to work to ensure oil and gas exports can access Canada's largest market, the United States, and that critical supply chains are protected from disruption, whether by state or non-state actors.

Critical minerals are the foundation on which modern technologies like solar panels and electric vehicle batteries are built and the building blocks for the green and digital economy. With the release of Canada's Critical Minerals Strategy, the Department has a roadmap to improve critical minerals supply chain resiliency. It focuses on opportunities at every stage of the value chain for Canada's 31 critical minerals. It outlines concrete measures to accelerate regulatory processes while ensuring meaningful and ongoing Indigenous partnerships. NRCan will also continue working on implementing the Canada–U.S. Joint Action Plan on Critical Minerals Collaboration and the Canada–EU Strategic Partnership on Raw Materials.

Adaptation, emergency preparedness, and nature-based solutions

Recent climate events have shown that Canada is not immune to climate change. Severe climate occurrences such as heatwaves, flooding and wildfires have impacted Canadians and the economy across the country. These events have highlighted the importance of being able to adapt and build our resilience to climate change.

To address these impacts of climate change, the Department will implement Canada's National Adaptation Strategy^{xi} to mitigate the risks accentuated by climate change. In coordination with provincial, and territorial governments, Indigenous peoples, local governments and academia, the Strategy will provide an integrated approach to reducing climate change risks. The National Risk Profile^{xii} will improve understanding of climate-related disasters such as floods, wildfires as well as earthquakes and identify gaps in our capabilities to address them.

To support adaptation measures, NRCan will invest in training 1,000 new community-based firefighters and supporting fire management by Indigenous communities to increase forest resilience to wildfires. In addition, NRCan will support emergency preparedness across Canada by developing flood maps for higher-risk areas, advancing work to complete flood mapping nation-wide, and providing centralized access to information on flood risks. NRCan will also support nature-based solutions to fight climate change, such as implementing the Natural Climate Solutions Fundxiii and continuing to advance the planting of two billion trees across Canada over ten years.

Future of #OurNRCan

In the post-pandemic environment, NRCan is transforming to a truly hybrid organization. The Department will embrace a new hybrid work model that is inclusive, flexible, adaptable, and enables teams to work together effectively regardless of location. Its approach is premised on innovation, growing our people and culture, modernizing our workplace, and leveraging digital technology to support how we work, collaborate, and serve Canadians better.

Employee wellness and well-being

Mental health and workplace wellness is important to ensuring psychological health, safety, and well-being of all employees. The Department will foster a healthy and inclusive workplace for our employees by renewing the Mental Health and Workplace Wellness Strategy beginning in 2023-24. The Department will strive to be an employer of choice by building an equipped and competent management team with the capacity to empower and support employees with their mental health and well-being while fostering psychologically healthy and safe teams.

The Department will also implement its 2022-25 Accessibility Action Plan. The goals are to diversify the workforce by closing representation gaps and to create a culture of safety and inclusion in the workplace while ensuring that NRCan's workplace programs and practices are accessible and inclusive by design.

Digital transformation

To adapt to the ever-evolving digital world, including hybrid work and cybersecurity, the Department will implement an integrated plan to respond to Canada's Digital Ambition.xiv By investing in the use of technology, data, cyber security and upskilling staff, NRCan seeks to strengthen the foundations required to deliver improved digital services. Cyber security is an increasingly high priority in light of rising cyber threats across the natural resource sectors. A robust Cyber Security Strategy will increase NRCan's ability to maintain delivery of key functions while ensuring protection of data.

For more information on Natural Resource Canada's plans, see the "Core responsibilities: planned results and resources" section of this report.

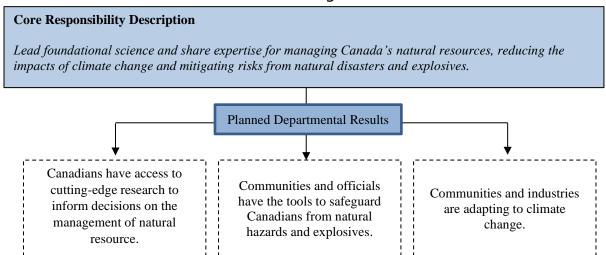
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¹ Each Core Responsibility chapter is organized by sub-headings corresponding to the departmental results of NRCan's Departmental Results Framework (DRF). Planned activities are organized using the Program Inventory structure supporting NRCan's DRF.



Core responsibilities: planned results and resources, and key risks

Natural Resources Science and Risk Mitigation



Planning highlights

As a science-based department, NRCan contributes to growing the body of knowledge, including through Indigenous knowledge, that helps inform the development of government policy. In 2023-24, NRCan will use its research and expertise to develop policies and programs that will contribute to Canada's natural resources being developed sustainably, reduced impacts of climate change and the protection of communities against natural and man-made hazards.

Canadians have access to cutting-edge research to inform decisions on the management of natural resources

Canadian Geodetic Survey: Spatially Enabling Canada

The Canadian Geodetic Survey^{xv} (CGS) will provide foundational positioning infrastructure, a framework that facilitates the accurate measurement of latitude, longitude, elevation and gravity in Canada. Such measurements are important not only for boundaries, but also for anything for which the location matters, including construction, precision agriculture, navigation and a wide array of scientific studies and applications.

In October 2021, the CGS received 5.6 million over 5 years to expand Canada's Global Navigation Satellite System (GNSS) infrastructure by adding at least 22 additional GNSS stations to increase the accuracy and availability of real-time position, navigation and timing information across Canada. This project aims to add nine GNSS stations in 2023-24.

Geological Knowledge for Canada's Onshore and Offshore Land

The Geo-Mapping for Energy and Minerals^{xvi} (GEM-GeoNorth) will continue discussions with Indigenous governments and organizations regarding aligning its research with their geoscience priorities. Following thorough engagement with communities, the program will be conducting fieldwork across Canada's North with up to 12 crews in the field in 2023-24.

This year, a new cycle of grants provided to Northern and Indigenous organizations, aim to increase capacity-building and development of tools for increased uptake of geoscience knowledge by communities. Strong linkages with provincial and territorial surveys will continue, as well as with the program's Advisory Group of Northerners.

NRCan will uphold its obligations to international treaties such as the United Nations Convention on the Law of the Sea^{xvii} (UNCLOS) that requires Canada to define the extent of its continental shelf beyond 200 nautical miles (i.e., the Exclusive Economic Zone). In 2023-24, NRCan will actively engage with the international scientific community in publishing scientific results, as well as reviewing and updating scientific arguments and data to support Canada's Atlantic Ocean (2013)^{xviii} and Arctic Ocean (2019)^{xix} submissions, as well as Canada's new outer limits in the Arctic Ocean (2022), filed with the UN Commission on the Limits of the Continental Shelf. Once Canada's outer limits are accepted by the UN after they are reviewed, Canada will have sovereign rights over the living and non-living natural resources on the seafloor and in the subsoil, and jurisdiction over their environmental protection, conservation, and sustainable development.

Core Geospatial Data

As a leader in the fields of earth sciences, energy, forestry and minerals, NRCan supports federal legislated assessments by providing scientific and technical expertise for strategic assessment processes for projects development across the country. NRCan coordinates input of science,

technical expertise, and knowledge to support evidence-based decision-making for sustainable development in Canada.

NRCan is working in collaboration with Environment and Climate Change Canada, the Impact Assessment Agency of Canada 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 provide 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 and development activities assist enhancing Canadians' trust in our regulatory systems and support better decisions.

NRCan will also support the delivery of regional and strategic assessments under the *Impact Assessment Act*^{xxi} through earth observation, forest, and geoscience research. This fundamental cumulative effects science will focus on the collection, characterization, and analysis of data to describe baseline conditions, trends, and future states of Canada's terrestrial environment, contributing new geoscience knowledge products to inform onshore and offshore planning in prioritized areas. The science and knowledge generated will be made accessible to the public via the Open Science and Data Platform.

Geospatial data acquired, created, and managed by NRCan will continue to be made available through Geo.ca. xxii for informed social, economic, and environmental decision-making. This includes having near real-time mapping information to enable more efficient responses to flooding and other natural disasters (e.g., Emergency Geomatics Services). NRCan will also maintain its ongoing management of satellite station facilities that track and receive data for scientific, mapping, weather, surveillance, and other purposes.

Canada-U.S. International Boundary Treaty

An effective Canada-United States boundary is essential for the security of Canadians and the preservation of sovereignty. The Canadian Section of the International Boundary Commission (IBC), in cooperation with its United States counterpart, will continue to preserve and maintain a clear and visible boundary between Canada and the United States. The Canadian Section will deliver in 2023-24 the yearly projects identified by the Commissioner in accordance with the 15-year maintenance plan. These projects include field surveys, maintenance and vista clearing, and inspections along various sections of the international boundary, from British Columbia to New Brunswick.

Canada Lands Survey System

The Canada Lands Survey System^{xxiii} (CLSS) remains committed to providing the legal framework that helps to define, demarcate, and describe real property boundaries and the extent of real property rights on Canada Lands – the North, Indigenous lands, national parks and offshore. Clear boundary demarcation contributes to secure land tenure that is required to enhance the value of land and underpin Canada's land based economic activities.

Under the First Nations Lands Management Program led by Crown-Indigenous Relations, NRCan will continue to support Canada's efforts to reinforce Indigenous Peoples' self-determination and authority over their lands. Through the First Nations Land Management Framework Agreement (FNLMFA), which recognizes First Nations' right to self-govern their lands, NRCan will support conducting comprehensive historical research and analysis to provide a clear and unambiguous description of lands that will fall under a community's Land Code. In addition, the program will deliver land surveying capacity development tailored to each First Nation's land management needs.

For 2023-24, in the Northwest Territories, the Gwich'in Comprehensive Land Claim Agreement, a five-year land survey program that will enter year three and will continue to complete surveys and work with the Gwich'in Department of Lands and the Gwich'in Tribal Council to implement Canada's obligations under the treaty to survey and demarcate Gwich'in lands.

Pest Risk Management

NRCan will lead and invest in science to support the management of damaging insects and diseases in natural, rural and urban forests, and preventing the spread of pests, including through international trade. This includes a focus on the spruce budworm, xxiv the mountain pine beetle, xxv invasive species such as the emerald ash borer and the hemlock woolly adelgid, xxvii as well as work pertaining to phytosanitary issues.

In collaboration with provincial governments, the forest industry and academia in Atlantic Canada, NRCan will advance implementation of the Spruce Budworm Early Intervention Strategy- Phase III to preserve ecological services provided by forests, quality jobs, and economic vitality for forest-reliant communities in the region.

Polar Continental Shelf Program

The Polar Continental Shelf Program^{xxviii} (PCSP) will continue to provide logistics support to enable scientific understanding of the effect of changing climate on permafrost and infrastructure, and to produce maps in support of sustainable mineral development in Canada's Arctic.

The PCSP coordinates logistics for research groups in Canada's North. The support includes air transportation in the Arctic, communication and field equipment, fuel for aircraft, meals and accommodations. In 2023-24 the Department will focus on providing Arctic logistics support and field equipment services for Canadian Arctic science and operations.

Communities and officials have the tools to safeguard Canadians from natural hazards and explosives

Geoscience for Sustainable Development of Natural Resources

In 2023-24, research conducted by the Geoscience for New Energy Supply program (GNES) will help explore new energy sources. This new knowledge will help reduce risk of geothermal

exploration, encouraging new industry investment to develop clean and renewable energy sources in support of goals of reaching net-zero by 2050. The research will support the understanding and tools that industry and government can draw upon to minimize environmental impact. The Department will advance activities related to clean energy and continue to work on assessments of geothermal potential and studies of unconventional gas resources associated with renewable geothermal energy sources. NRCan will continue to conduct research to support storage of gases underground—particularly carbon dioxide and hydrogen.

The Critical Minerals Geoscience and Data program will contribute to Canada's Critical Mineral Strategy^{xxix} by working to develop better data, platforms for data analysis and visualization, and predictive tools that are specific to critical minerals. These will help Canada address the challenges associated with the increased demand of critical minerals. The Department will cooperate with provinces and territories on critical minerals through the Pan-Canadian Geoscience Strategy.

Through the Targeted Geoscience Initiative, xxx NRCan will continue to deliver results from 34 on-going research activities that are improving mineral exploration effectiveness throughout Canada by developing next-generation geological models and knowledge, leading-edge mineral exploration tools and methods while training the next generation of geoscientists.

Explosives Safety and Security

NRCan is responsible for administrating the *Explosives Act* and the Explosives Regulations 2013^{xxxi} regulating the safe and secure handling of explosives, ensuring their production, storage and transportation is done in a way that keeps Canadians safe and without impact to national security.

NRCan is doing a full review of the *Explosives Regulations 2013* with the goal of modernizing its regulatory regime to keep pace with an evolving explosives sector and to allow for a more efficient service delivery. NRCan will be bringing forward proposed amendments for formal consultation in 2023-2024 and in the following year.

Geoscience to Keep Canada Safe

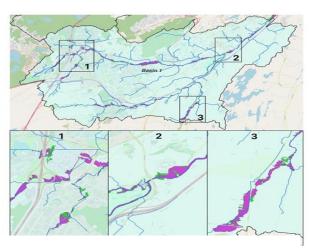
NRCan keeps Canadians safe from threats posed by natural hazards by providing information and data to decision makers to understand and reduce risk. To accomplish these objectives in 2023-24, the Department will continue its research and planning work related to natural geohazards (earthquakes, landslides, tsunamis, and volcanoes) to support public safety and resilience to natural hazard events.

As part of the Emergency Management Strategy, the Department is developing and bringing into operation in 2023-24 a national Earthquake Early Warning System^{xxxii} designed to enhance early detection and warning in areas of high concentration of population and infrastructure, and playing a key role in the development of the National Risk Profile.

Building on an evaluation of the program completed in 2022, NRCan will advance research linkages between climate change and research on those hazards that are expected to be altered by

a changing climate. From an equity, diversity and inclusion perspective, the program will engage with Indigenous communities to share research findings and knowledge affecting Indigenous communities. The Climate Change Geoscience Program^{xxxiii} will pursue its research to enable other levels of government in Canada and Canadian community decision-makers to make science-based decisions related to climate change adaptation and disaster risk reduction. Where Canada's environment is most susceptible to change, such as in the North, our coasts and glaciers, NRCan continues its northern research on permafrost thaw to support infrastructure and environmental change decisions. NRCan will continue to supervise costal erosion and sea-level rise according to Canada's commitment on glacier monitoring.

The Flood Hazard Identification and Mapping Program^{xxxiv} (FHIMP) will expand over five years and will enable the government to identify and mitigate the impacts of flooding in high-risk areas in Canada. NRCan and its partners will continue to support decisionmaking to address urgent flooding risks and impacts, often exacerbated by climate change, by providing flood hazard maps and scientific modelling to ensure that all Canadians have access to flood hazard information and enhance their safety and security. NRCan will use artificial intelligence, machine learning and high-performance computing to enable flood hazard modelling for at-risk areas where mapping gaps exist, or where climate-related events or conditions may result in a higher



Flood hazard data, for 100 and 20 years return period, for a watershed in Eastern Newfoundland

susceptibility to flooding. Advancing the FHIMP will mitigate the extent of flood damage, increase Canadian's resilience to flood-related impacts, and reduce federal and private flood event recovery costs.

Wildfire Risk Management

NRCan will support the sustainability of Canada's forests as a source of livelihood for Canadians and as an important means to fight the effects of climate change. To achieve this, the Department will work in collaboration with federal, provincial/territorial governments, Indigenous peoples, local governments and academia to mitigate and reduce risks to communities and businesses from wildfires accentuated by climate change, consistent with the National Adaptation Strategy.**

NRCan will continue to advance wildfire resilience through implementation of the Canadian Wildland Fire Strategy^{xxxvi} (CWFS) and supporting the Canadian Interagency Forest Fire Centre. The CWFS is a pan-Canadian approach to wildland fire preparedness, mitigation, and response.

NRCan will continue to work in collaboration with Public Safety Canada on the National Risk Profile^{xxxviii} (NRP) to inform risk-based decision making related to natural and climate related events.

To increase resiliency to wildfires, the Department will also support increased mapping of areas in Northern Canada that are at risk of wildfires and continue to train indigenous firefighters.

Under the Emergency Management Strategy, NRCan enhances whole-of-society collaboration and governance to strengthen resilience to wildfires and improve the understanding of disaster risks. This approach will increase disaster prevention and mitigation activities, enhance disaster response capacity and coordination while fostering the development of new capabilities.

Communities and industries are adapting to climate change

Forest Climate Change

To support Canada's National Adaptation Strategy, xxxix NRCan's Forest Climate Change Program^{xl} will provide science-based adaptation and mitigation solutions by sharing expertise, information and data, developing adaptation tools and collaborating with the diverse groups that comprise the Canadian forest sector and forest-based communities. In 2023-24, the Department will assess which sustainable forest management activities and harvested wood products achieve maximum reductions in GHG emissions to achieve a low carbon economy. Analyses include opportunities for site rehabilitation, restoration, afforestation as well as measures to improve forest type and species composition.

NRCan will continue to implement the Natural Climate Solutions Fund^{xli} and deliver on the plan to plant 2 billion trees (2BT) across the country over 10 years to contribute to Canada's GHG emissions reduction target in 2030 and net zero emissions target in 2050. Benefits to communities and the ecosystem also include the restoration of habitat for wildlife and biodiversity, cleaner air and water, storm surge management and increased resilience to the devastating effects of climate change such as wildfires and flooding. The program will fund tree planting projects with provinces and territories, tree planting organizations – both profit and non-profit, municipalities and Indigenous organizations.

In 2023-24, the Department will sign agreements for successful projects under the ongoing Call for Proposal process. Further to this, NRCan will draft and sign contribution agreements with provinces and territories for tree planting activities related to the 2BT commitment. Finally, there are plans to implement the co-developed governance model to deliver the Indigenous Funding Stream to support the full participation of Indigenous peoples in natural climate solutions.

Climate Change Adaptation

To support Canada's National Adaptation Strategy, xlii NRCan leads the Climate Change Adaptation Program to increase climate change resiliency in natural resources sectors and the communities that depend on them. The Program also includes the continued delivery of national knowledge assessments of climate change impacts and adaptation and national-scale collaboration under Canada's Climate Change Adaptation Platform. xliii

NRCan's adaptation programs and expertise is reflected in the Government of Canada Adaptation Action Plan to support the implementation of the national adaptation strategy to help communities and businesses become more resilient to the impacts of climate change. NRCan will continue to lead the Economy and Workers Theme of the Strategy and will also pilot a new approach to regional climate resilience through the Climate Resilient Coastal and Northern Communities Program. This program will enable communities to work together to overcome barriers and develop solutions to climate change risks.

Innovation

With respect to reducing impacts and mitigating risks, the Department is employing these methods on several fronts. For example, NRCan is identifying Canadians' awareness of forest fire risk and increasing the use of the FireSmart app by communities vulnerable to forest fires. The Office of Energy Efficiency is using behavioural science and experimentation to inform the design of a climate adaptation home rating program which will include actions that homeowners can take.

Gender-Based Analysis Plus

The use of GBA Plus allows the Department to identify and address potential and existing barriers to accessing and benefitting from NRCan programs to facilitate more inclusive and equitable opportunities and outcomes for all Canadians. Below are some examples under this Core Responsibility:

- The **Geo-Mapping for Energy and Minerals** (GEM-GeoNorth) Program continues to facilitate increased labour market opportunities especially for women in underrepresented groups, Northerners and Indigenous Peoples, via direct hiring, and by disbursing grants for geoscience research or multidisciplinary activities that can increase labour market readiness. In particular, the GEM-GeoNorth Advisory Group of Northerners is providing guidance on improving program impacts in the North for traditionally underrepresented individuals.
- The **Geoscience to Keep Canada Safe** Program provides information and data on the impacts of hazards. As natural disasters have been shown to impact women, seniors, children and other vulnerable parts of society disproportionately, the program allows policy makers, planners, and emergency managers to identify vulnerable populations and make informed decisions to tailor preparedness and emergency responses accordingly.
- The **2 Billion Trees** Program will continue to track the percentage of underrepresented groups in tree planting and other related activities including the number of Indigenous organizations supported by the program. As a result of GBA Plus analysis, the 2BT

program has also incorporated diversity and inclusion considerations into the Program design and implementation. In 2023-24, the program will implement a co-developed inclusive governance model with Indigenous partners for the distribution of funds through the Indigenous funding stream. The program's external Advisory Committee ensures Indigenous representation within program governance.

United Nations 2030 Agenda for Sustainable Development and the Sustainable Development Goals



The 2030 Agenda for Sustainable Development, adopted by Canada and all 193 United Nations member states in 2015, is a global framework centred around 17 Sustainable Development Goals (SDGs) to achieve economic prosperity, environmental sustainability, and social inclusion.

The planned activities that will help the Department attain the Sustainable Development Goals under the Core Responsibility for Natural Resource Science and Risk Mitigation include:









- Continuing to work with partners and stakeholders to implement the
 whole-of-society approach to reducing climate change risks and the shared
 vision for increasing climate resilience in Canada as put forth in Canada's
 National Adaptation Strategy (SDG 13 -Climate Action);xliv
- Developing methodology to produce resource assessments to other government departments (DFO, ECCC, PC) on proposed protected areas along Canada's offshore. Using marine geoscience data to develop new resource potential maps and analyses of seafloor geology to inform evidence-based marine spatial planning. This work supports Canada's commitment to protect 25% of its offshore lands by 2025 and 30% by 2030. (SDG 14 Life Below Water^{xlv} and SDG 17 Partnerships for the Goals);^{xlvi}; and
- Building resilience in the forest sector through the Forest Climate Change Program, by increasing awareness, understanding, uptake and use of climate change mitigation and adaptation information, methods, tools and data by professional foresters, forest managers and other decision-makers (SDG 13 -Climate Action^{xlvii} and SDG 15 - Life on Land). xlviii

Additional information on how NRCan's activities support the United Nations' 2030 Agenda and Sustainable Development Goals is reflected in the 2020-23 Departmental Sustainable Development Strategy (DSDS) and the United Nations 2030 Agenda and the Sustainable

Development Goals Supplementary Information Table. The 2023-27 DSDS will be published in November 2023.

Key risks

The Department's ability to lead foundational science and share expertise for managing Canada's natural resources, reducing the impacts of climate change and mitigating risks from natural disasters and explosives could be impacted by several risks related to alignment with federal partners, engagement with external partners and securing the necessary funding and policy authorities to deliver on our commitments. These risks can be mitigated with measures such as improving governance of horizontal initiatives shared between multiple departments and leveraging and strengthening existing strategic relationships with domestic partners. For more information, see the Key Corporate Risks section of this report.

Planned results for Natural Resources Science and Risk Mitigation

The following table shows, for Natural Resources Science and Risk Mitigation, the planned results, the result indicators, the targets and the target dates for 2023–24, and the actual results for the three most recent fiscal years for which actual results are available.

Departmental results	Performance indicators	Target	Date to achieve target	2019–20 actual results	2020–21 actual results	2021–22 actual results
have access to cutting-edge research to inform decisions on the management of natural resources	Number of times scientific products related to natural resources are accessed by Canadians	At least 320,000 quarterly average	March 2024	504,242	365,935	350,130
	Percentage of environmental impact assessments demonstrating use of scientific and technical advice provided by NRCan	Exactly 100%	March 2024	100%	100%	100%
	Number of times stakeholders	At least 30,250	March 2024	30,957	30,974	36,211

	acknowledge using NRCan's scientific and technical products in making their decisions					
	Percentage of science publications authored by NRCan available on Open Access ²	50% (SCOPUS data source³) 100% (NRCan Open Institutional Repository data source)	Date to Achieve Target 1: March 2024 Date to Achieve Target 2: March 2025 onwards	Not available	Not available	Not available
	Number of NRCan agreements that recognize data and/or information derived from an Indigenous Knowledge source and is used to inform NRCan science and/or research ⁴	4	March 2024	Not available	Not available	5

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² This is a new indicator included in NRCan's Departmental Results Framework.

³ SCOPUS is a subscription-based research and citation database by Elsevier with access provided by the Federal Science Libraries Network.

⁴ Since the 2021-22 Departmental Plan, NRCan has revised the methodology to more accurately count the number of training and development initiatives that enable NRCan to incorporate Indigenous Knowledge in conjunction with NRCan science. For this reason, historical information is not available.

	Percentage of foundational geospatial data that is current	At least 80%	March 2024	Not available	21%	31%
Communities and officials have the tools to safeguard Canadians from natural hazards and explosives	Percentage of hazardous natural events within Canada for which a notification was issued in a timely manner	At least 90%	March 2024	97%	100%	100%
	Percentage of emergency geomatics services provided to Canadians in a timely manner to assist during floods	100%	March 2024	100%	100%	100%
	Percentage uptime of the Canadian Wildland Fire Information System during the wildfire season	At least 97%	March 2024	97%	97%	97%
	Percentage of inspections of explosives sites rated safe ⁵	At least 70% (90% by March 2025)	March 2024	82%	73%	74%

⁵ A 'safe' rating indicates an inspection rated "satisfactory or better." NRCan conducts rigorous and timely follow up on any facility that does not achieve a satisfactory rating.

Communities and industries are adapting to climate change	Number of times NRCan products and expertise on adaptation are accessed by Canadians	At least 34,000 quarterly average	March 2024	46,085	25,858	26,814
	Percentage of Canadian communities and industries that have taken steps to adapt to climate change	At least 60% for communities At least 40% for businesses	March 2027	57% for communities 32% for businesses (from 2018 survey)	57% for communities 32% for businesses (from 2018 survey)	57% for communities 32% for businesses (from 2018 survey) ⁶

The financial, human resources and performance information for the Natural Resources Canada's program inventory is available on GC InfoBase. xlix

Planned budgetary spending for Natural Resources Science and Risk Mitigation

The following table shows, for Natural Resources Science and Risk Mitigation, budgetary spending for 2023–24, as well as planned spending for that year and for each of the next two fiscal years.

		2024–25 planned spending	2025–26 planned spending
\$602,987,396	\$602,987,396	\$634,633,235	\$656,259,628

Financial, human resources and performance information for Natural Resources Canada's program inventory is available on GC InfoBase.¹

⁶ The next survey will take place in fiscal year 2022-23

Planned human resources for Natural Resources Science and Risk Mitigation

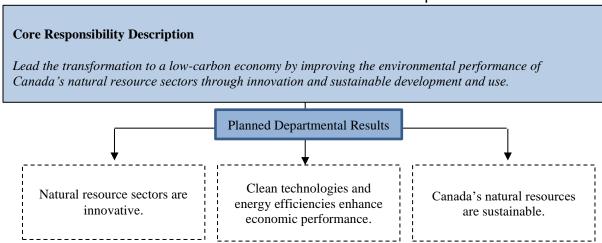
The following table shows, in full-time equivalents, the human resources the Department will need to fulfill this core responsibility for 2023–24 and for each of the next two fiscal years.

2023–24 planned full-time equivalents		2025–26 planned full-time equivalents	
1,394	1,357	1,336	,

Financial, human resources and performance information for Natural Resources Canada's program inventory is available on GC InfoBase. li



Innovative and Sustainable Natural Resources Development



Planning highlights

Sustainability, sound environmental stewardship, inclusivity and robust science are the lenses through which NRCan is supporting the management of Canada's energy, forest and mineral resources. Through innovative programs and policies, the Department has a plan to support Canada's natural resource sectors to meet 2030 climate targets and advance the transition of Canada's natural resources sector to net-zero emissions by 2050, while maintaining affordability and competitiveness.

Canada will also use its unique position as an exporter of clean energy solutions and sustainable natural resources to work with its international partners, bilaterally and multilaterally, to advance a secure, affordable and inclusive global transition to net-zero. This will include continuing its leadership role in international fora such as the G7, lii G20, liii International Energy Agency, Mission Innovation, lv Clean Energy Ministerial, lvi and the International Renewable Energy Agency, while increasing its involvement in United-Nation bodies, and notably its participation in the United Nations Framework Convention Climate Change lviii and Conference on Biological Diversity. In addition to advocating for sustainability and innovation in the energy sector, these platforms will be used for advancing people-centred policies and encourage further actions from international partners to advance equity, diversity and inclusion in the energy sector, including an increased recognition of the value of full participation of Indigenous People in natural resource sectors.

Natural resource sectors are innovative

Energy Innovation and Clean Technology

In 2023-24, the Clean Growth Hub, lx a horizontal initiative co-led by Innovation, Science and Economic Development Canada (ISED) and NRCan (and in partnership with 15 other departments and agencies) will continue to serve as the federal focal point for clean technology ensuring that clean technology stakeholders are better equipped to make decisions related to clean technology innovation and deployment, and clean economic growth. The Hub will work to provide targeted and tailored services to both existing and new clients, continuing to implement its Reconciliation, Equity, Diversity, and Inclusion action plan to better support underrepresented groups in the clean technology sector, including women and Indigenous Peoples.

To drive innovation in clean energy technologies, the Department will continue to undertake initiatives, such as the Energy Innovation Program, lxi Green Infrastructure, lxii Carbon Capture, Utilization and Storage lxiii suite of activities, and the Program of Energy Research and Development. Ixiv Through targeted grants and contributions, world-class research conducted in federal labs, such as CanmetENERGY, lxv and collaborations with key stakeholders, NRCan will advance research, development, and demonstrations (RD&D) of new clean energy technologies and solutions in areas such as carbon management, cleaner fuels, electricity, transportation, buildings and industry. These efforts will accelerate energy systems transformation and ultimately help to reduce emissions and achieve Canada's net-zero goals. NRCan will also continue to play an international leadership role, working through Mission Innovation and the International Energy Agency to accelerate energy RD&D globally.

To support the transition towards producing, transporting, and using cleaner fuels (e.g., low-carbon hydrogen and ammonia), the Department will also collaborate with the natural gas sector to identify and pursue opportunities for leveraging existing natural gas assets and expertise, including natural gas supply, pipelines, and end-use technologies such as home appliances.

NRCan will also play a significant role in supporting Finance Canada to implement various tax measures that support manufacturing and adoption of clean technologies in the natural resources sector. This includes providing technical assistance for the Investment Tax Credit for Clean Tech, Hydrogen and Carbon Capture and Storage, as well as for certain classes of Accelerated Capital Cost Allowances.

Green Mining Innovation

Through the Green Mining Innovation Program, lxvi the Department will help advance the commercial readiness of emerging mineral processing operations and technologies to support the development of zero-emission vehicle value chains in Canada by providing funding and performing research and development to facilitate the production of raw material inputs for use in batteries and permanent magnets. In addition, NRCan will continue to support the advancement of hydrogen in Canadian mining operations, focusing on addressing gaps in codes, standards and regulations for the use of hydrogen in mining vehicles and storage applications.

This includes continuing to co-chair, along with the Mining Association of Canada, the Mining Working Group, under the National Hydrogen Strategy. lxvii

The Department co-leads with ISED the coordination of federal departments to develop of technologies and scientific information to support the establishment of the upstream parts of the battery value chain in Canada. This includes promoting sustainable battery innovation, advancing technologies for the extraction and processing of battery minerals, and working with stakeholders to develop relevant strategic priorities.

NRCan will also work with federal partners and stakeholders to focus on the development of critical minerals from both primary⁷ and secondary⁸ sources by producing a blueprint to attract investments and coordinate actions. Other planned activities related to critical minerals include the development of scientific information to support decision making (e.g. codes and standards).

Fibre Solutions

Through the Canadian Wood Fibre Centre (CWFC), the Fibre Solutions program conducts research to deliver innovative, effective, and sustainable solutions to challenges faced by Canada's forest industries.

With the transition towards a low-carbon global bioeconomy, the Canadian forest sector will have opportunities to demonstrate their ability to innovate by diversifying the basket of products made out of wood fibre.

Demand for renewable feedstock is increasing due to the emerging bioeconomy and demands on forest resources. However, there is uncertainty about wood fibre supply due to climate change. NRCan's Sustainable Fibre Solutions program offers innovative and sustainable solutions to reduce the pressure on wood fibre supply.

Developing fibre-based knowledge, tools, techniques, and solutions will help the forest sector's transition to a low-carbon economy, while sustaining Canada's wood fibre supply availability in the context of a globally changing market.

Innovative Geospatial Solutions

Understanding the impact of climate change on Canada's changing climate and its vast landscape requires up-to-date geospatial data. As a result, NRCan's satellites and ground stations track and receive geospatial data in real-time for mapping, weather, surveillance and for monitoring the status and trends of our infrastructure, lands, forests and water. The Department will leverage collaborations amongst its scientists, experts and other partners, such as the Open Science Data Platform. Innovative approaches and standards-based technologies will be employed to advance Earth Observations science and operations, Spatial Data Infrastructures, foundational

⁷ Primary source: critical minerals that are sourced from the ground.

⁸ Secondary source: critical minerals that are sourced from post-consumed products such as used batteries, mining waste and used electronics.

geospatial datasets and other analysis-ready products for climate change monitoring. This data, products and services will continue to be disseminated as open data via innovative environments such as Geo.ca^{lxix} or other federal and interjurisdictional websites.

Further, NRCan is establishing a framework that honours diverse knowledge systems and creates more space for Indigenous voices in departmental science and research. This framework will enable scientists and researchers to establish mutually-beneficial research collaborations, mobilize knowledge in a culturally relevant manner, and safeguard the integrity of Indigenous data, information and knowledge. Bridging and weaving diverse knowledge systems in departmental science and research will help to broaden Canada's collective knowledge base.

Clean technologies and energy efficiencies enhance economic performance

Energy Efficiency

NRCan's Energy Efficiency Program^{lxx} is a crucial element of the 2030 Emissions Reduction Plan.^{lxxi} It includes the Canada Green Buildings Strategy^{lxxii} which will outline a roadmap focused on preparing all levels of government, industry and the private sector to ensure that Canada reaches net-zero emissions in 2050 by decarbonizing space and water heating and ensuring the energy efficiency of building envelopes.

The Code Accelerator Fund will support Indigenous communities, provinces, territories, and municipalities to accelerate building energy code adoption, such as the higher tiers of the National Energy Code of Canada for Buildings, laxiii and to address gaps in code compliance and enforcement in their jurisdictions. The Deep Retrofit Accelerator Initiative laxiv will contribute to transforming the buildings sector by facilitating deep retrofit projects in Canada through capacity building and removing barriers to project development and implementation. NRCan will also launch the Greener Neighbourhoods Pilot Program which will test and validate large-scale deep energy retrofits in community housing buildings in up to six communities, to increase the equity of access to retrofits, and address key barriers to the rapid deployment of deep energy retrofits in the existing housing market.

The Department will also develop regulatory standards and an incentive framework to support the transition off fossil fuels for residential heating systems, work with Indigenous communities, provinces, territories, and municipalities to require EnerGuide^{lxxv} labelling at time of sale to improve home energy performance and lower emissions, and create a Climate Adaptation Home Rating Program.

The EnerGuide Rating System for Homes^{lxxvi} will support homeowners in making informed energy efficiency decisions on renovations under initiatives like the Canada Greener Homes Grant, lxxvii which helps Canadians make where they live more energy-efficient while saving homeowners money, creating new jobs across Canada for energy advisors, and fighting climate change and the new Oil to Heat Pump Affordability Grant will help low to median income Canadian households who are currently heating their homes with oil make the transition to

affordable and energy-efficient electric cold-climate heat pumps. The Green Industrial Facilities and Manufacturing Program will maximize energy performance by accelerating uptake of energy management systems and reducing energy intensity and carbon emissions in the industrial sector. Canada's Energy Efficiency Regulations^{lxxix} will maximize energy savings in homes, commercial and institutional buildings, and industry by establishing energy efficiency standards, product testing and labeling, and data collection requirements for many types of energy equipment available in Canada. The ENERGY STAR^{lxxx} symbol is the internationally recognized and trusted mark of high-efficiency products, homes, buildings and industrial facilities that are certified to use less energy and reduce emissions that contribute to climate change. The Department's ENERGY STAR for New Homes^{lxxxi} program will play an important role in accelerating net-zero emissions new builds by helping to build the knowledge, skills and experience needed to construct the higher performance homes that will meet future net-zero emissions building code requirements. NRCan's Greening Government Services^{lxxxiii} which includes technical support, guidance and training to federal organizations will support greening commitments under the Greening Government Strategy. Ixxxiii

NRCan will continue supporting ISED in the implementation of the Net-Zero Accelerator Initiative, laxiv delivered through the Strategic Innovation Fundlaxiv to speed up decarbonization projects with large emitters, scale-up clean technology and accelerate Canada's industrial transformation across all sectors.

In 2023-24, NRCan will provide the latest information related to the Clean Technology Data Strategy it co-leads with ISED and Statistics Canada. This strategy will provide context to the economic and environmental contribution of clean technologies in Canada. The published products will present the nature and challenges of clean tech companies in Canada, such as attracting and finding capital.

Canada's natural resources are sustainable

Sustainable Forest Management

The Sustainable Forest Management Program^{lxxxvi} will advance the collection, harmonization, and management of forest data to provide timely information on Canada's forests such as through Canada's Open Science Data Platform. lxxxvii Increased mapping of Canada's northern forests will enable communities to better prepare for wildfire hazards and support community mitigation measures. By means of targeted forest research, NRCan will fill priority knowledge gaps about forest ecosystems to inform sustainable forest management practices and policies, including the role of sustainable forest management in addressing climate solutions and biodiversity conservation.

Lower Carbon Transportation

Through the Zero-Emission Vehicle Infrastructure Program, lxxxviii the Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative, lxxxix and the Zero-Emission Vehicle Awareness Initiative, RCan will support the construction of electric vehicle charging, natural gas and hydrogen infrastructure in Canada. Additionally, the Electric Vehicle Infrastructure Demonstration Program will continue to support demonstrations of next generation technologies and innovative solutions to address challenges and barriers for the deployment of EV charging and hydrogen refuelling infrastructure. Through the Greening Freight Programs, the Department will continue to provide training, tools, and resources to help Canada's fleets lower their fuel consumption, operating costs, and emissions.

To de-risk the capital investment required to build new, convert or expand existing clean fuel production facilities, the Department will continue to administer the Clean Fuels Fund^{xcii} that was launched in 2021, investing \$1.5 billion over five years to grow clean fuel production capacity in Canada. The Fund will also support feasibility and front-end engineering and design studies, and the establishment of biomass supply chains to improve logistics for the collection, supply, and distribution of biomass materials as a feedstock in clean fuel production facilities. NRCan will coordinate on bioenergy across the Government of Canada by leading the development and implementation of a Bioenergy Strategy that will increase the share of sustainable bioenergy in Canada's energy mix and to spur research and development partnerships with industry.

At COP27^{xciii} in November 2022, Canada re-affirmed its pledge to deliver on climate finance commitments and cut emissions by 40-45% below 2005 levels by 2030. To reach this objective, the Department will support ECCC and Finance Canada in eliminating inefficient fossil fuel subsidies and phasing out fossil fuel public financing. Further, NRCan will collaborate with ECCC to cut oil and gas emissions. A decision will be reached in 2023-24 regarding the level and trajectory of emissions reductions as well as the specific regulatory instrument used to implement the cap.

The Department will work with stakeholders and project proponents, in the natural gas sector and beyond, as well as other federal and provincial departments, to advance low-carbon diversification pathways, such as in hydrogen and petrochemicals.

Electricity Resources

The Department plays a key role in driving progress towards a net-zero electricity grid by 2035. Expanding the use of non-emitting electricity, both as a proportion of electricity use, and as a source of energy for other sectors, such as industrial, heating, and transportation. Through the Smart Renewables and Electrification Pathways Program, reiv NRCan will invest \$1.56 billion over eight years to advance smart renewable energy projects, including wind, solar, geothermal, storage, and grid modernization that will enable the clean grid of the future. The Department will continue to implement emerging renewable energy projects (geothermal and instream tidal) approved through the Emerging Renewable Power Program.

The Government of Canada supports Indigenous, rural, and remote communities in transitioning from diesel for heat and power to clean energy. As part of implementing the Strengthened Climate Plan, XCVI NRCan will work with Crown-Indigenous Relations and Northern Affairs Canada, Indigenous Services Canada and other federal departments who support capacity building and clean energy projects in Indigenous, rural, and remote communities through the Clean Energy in Indigenous, Rural and Remote Communities Hub, a single-window approach to deliver funding. As a result, NRCan's Clean Energy for Rural and Remote Communities Program will support projects nationally that reduce fossil fuel use for heat and power through community-driven clean energy solutions, creating sustainable jobs and economic development opportunities with communities.



Through the Indigenous Off-Diesel Initiative (IODI), the Department will support Indigenous-led, community-driven projects that focus on local capacity building, clean energy planning and development of clean energy projects. In 2023-24, the Department will continue to support the 14 Energy Champions from IODI's first cohort and select a second cohort of ten new champions, reaching more remote communities across the country.

NRCan will actively support the PCO-led Atlantic Loop Working Table, which works with utilities and provinces to identify options to advance the Atlantic Loop Projects. The Department's collaborative efforts on the Atlantic Loop Project include supporting regulatory analysis and Indigenous engagement. Further, NRCan will continue managing the \$25M Strategic Interties Predevelopment Program (SIPP) to support inter-provincial electricity transmission project predevelopment activities. This program funds engineering assessments, community engagement, and environmental and regulatory studies. Work is underway to implement the \$250 million Electricity Predevelopment Program to support predevelopment activities associated with clean electricity as well as launching Enabling Responsible Small Modular Reactor^{xcix} (SMR) Deployment Program, which will provide 69 million to support research to address waste from SMRs, develop supply chains, strengthen international nuclear cooperation agreements, and enhance domestic safety and security.

In addition, NRCan will partner with stakeholders to create the conditions for an offshore renewable energy industry in Canada. This includes advancing the Offshore Renewable Energy Regulations, under Part 5 of the Canadian Energy Regulator Act,^c to develop modern safety and environmental protection regulations that will apply to exploration, construction, operation and decommissioning activities related to renewable energy projects and power lines in Canada's offshore areas. NRCan will carry on working with its joint-management partners, Nova Scotia and Newfoundland and Labrador, in pursuing legislative amendments to the Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act^{cii} to expand the mandate of the Canada-Nova Scotia Offshore Petroleum Board^{ciii} and the Canada-Newfoundland and Labrador Offshore Petroleum Board^{ciii} to include regulation of offshore renewable energy projects.

In December 2020, the Government of Canada launched the Small Modular Reactors (SMRs) Action Plan^{cv} to develop and deploy SMRs as a potential tool for emissions reduction within Canada and abroad. NRCan will work with utilities, as well as provinces and territories, Indigenous Peoples, industry, innovators, laboratories, academia, and civil society to advance SMRs through Canada's SMR Action Plan. The Department will continue co-chairing the SMR Leadership Table and supporting the SMR Indigenous Advisory Council to enable collaborative dialogue on SMR priorities and nuclear energy matters broadly.

The risk of severe and complex cyber attacks on Canada's critical energy infrastructure is real. In the face of these threats, the Department will collaborate with multiple stakeholders, domestic and international, to facilitate the sharing of intelligence, tools, and best practices, to protect Canada's energy sector and keep critical infrastructure secure and resilient.

Energy and Climate Change Policy

The Department provides the leadership needed for Canada's clean energy transition and climate policy development that inform evidence-based decisions. Together with ECCC, NRCan will work on the implementation and oversight of measures under Canada's 2030 Emissions Reduction Plan, cvi and will contribute to advancing the Integrated Climate Lens framework to assess the climate change mitigation, adaptation, and resilience impacts of federal decisions. NRCan will collaborate with Statistics Canada, ECCC and the Canada Energy Regulator to further expand the Canadian Centre for Energy Information and provide trusted information on energy for sound policies and decision making.

Further, NRCan is working with several other departments and agencies to elaborate a Buy Clean Strategy for Canada that supports the use of made in Canada construction products with low-embodied carbon. The Department will be developing capacity building programs on low embodied carbon procurement for construction industry professionals and federal property managers.

Both domestically and abroad, NRCan promotes a people-centred, equitable, diverse, and inclusive energy transition. This means leveraging existing initiatives, including the Empowering People Initiative and the Equality in Energy Initiative under the Clean Energy Ministerial, cix to advance people-centred policies, and encourage further actions from international partners to promote equity, diversity, and inclusion in the energy sector. The Department will also engage with provinces and territories to advance shared priorities related to Canada's clean energy transition, including through intergovernmental fora, such as the Energy and Mines Ministers' Conference. cx

To ensure that Canada seizes the economic opportunities of the net-zero transition in a way that is fair and inclusive for all Canadians, NRCan, in collaboration with ESDC, is bringing forward sustainable jobs legislation. This legislation will lay the foundation for effective federal action on advancing the creation of sustainable jobs to promote economic growth and empower workers across Canadas to lead the global energy transition for decades to come.

The Department is helping to ensure Canada is a highly competitive, prosperous leader in the transition to a low-carbon future through the Regional Energy and Resource Tables^{cxi} (Regional

Tables). The Department will work individually with each province and territory, in collaboration with Indigenous Partners, to identify and accelerate place-specific opportunities where Canada can hold a comparative advantage in a global, low-carbon economy. This includes aligning resources and timelines and better coordinating regulatory and permitting processes while also enlisting the input and expertise of union partners, industry, municipalities, workers, experts and civil society. As well, NRCan will work with federal partners in developing and implementing plans to accelerate the development of regional growth opportunities that play to Canada's historic and emerging strengths in the resource sectors; transform the energy systems that will underpin economic prosperity in a global, low-carbon economy; advance net-zero growth across Canada; and promote the creation of sustainable jobs, including through government action that Canadian workers and communities can benefit from in the future. With nine Regional Tables established as of January 2023, the Department will continue its dialogue with the goal of establishing Regional Tables with every province and territory throughout 2023.

Innovation

Using behavioural science analysis to increase the effectiveness of our policies and programs is part of how NRCan is innovating in its efforts to lead the transformation to a low-carbon economy. As part of this work, NRCan will continue to work with the Privy Council Office and ECCC on the Program of Applied Research for Climate Action^{cxii} which is carrying out a longitudinal study of Canadians to gain insights into their motivations. The program is also experimenting to apply these insights to programs and policies to ensure that they are effective at helping Canadians take pro-climate behaviours. Some of the examples of where the Department will apply innovative experiments will be in the adoption of zero emission vehicles, exploring ways to reduce Canadian's reliance on fossil fuels for home heating and supporting deep home energy retrofits.

Gender-Based Analysis Plus

In 2023-24, the Department will continue to support the fourteen Energy Champions from the Indigenous Off-Diesel Initiative's first cohort and select a second cohort of ten new champions, reaching more remote communities across the country. The **Cumulative Effects program** of the Canadian Forest Service will continue to advance more equitable research opportunities and desirable outcomes in woodland caribou protection and habitat restoration through Indigenous engagement and collaboration.

The Lower Carbon Transportation Program has used disaggregate information by province and territory to determine the uptake and impact of lower carbon transportation options and awareness efforts by location. Moving forward, the program will measure the number of jobyears of employment generated by funded projects. The Smart Renewables and Electrification Pathways Program will set aside funding from its Capacity Building stream to focus on overcoming barriers to future deployment, including activities such as knowledge sharing, mentoring, training and engagement opportunities for underrepresented groups.

The Energy Efficiency Program^{cxiii} tracks the GBA Plus impacts resulting from Canada's energy efficiency programming and uses this information to inform program delivery, design, and implementation, as well as policy development to promote equities among gender-diverse and under-represented groups, including Indigenous peoples. For example, the Oil to Heat Pump Affordability Grant^{cxiv} was designed for a specific client base of low-to median-income households. Within these households, Indigenous peoples, women, youth under 30, and racialized people are disproportionately represented. Additionally, the Canada Greener Homes Grant^{cxv} includes recruitment and training of Indigenous energy advisors to build local capacity, improve access in rural, northern, and remote communities, and reduce barriers to participation in the energy efficiency workforce. Data is collected by contribution agreements, via quarterly progress reports, which is disaggregated by gender, and Indigenous/Non-Indigenous status.

Finally, to continue building a more equitable, diverse and inclusive low-carbon future, the Department will work with public and private sector organizations through the international 'Equal by 30' Campaign.

United Nations 2030 Agenda for Sustainable Development and the Sustainable Development Goals

The planned activities that will help the Department attain the Sustainable Development Goals under the Core Responsibility for Innovation and Sustainable Resource Development include:

• Ensuring access to affordable, reliable, sustainable and modern energy through collaborative engagements and initiatives such as the Clean Fuels Fund, *Offshore Renewable Energy Regulations*, and Smart Renewables and Electrification Pathways Program (SDG 7 - Affordable and Clean Energy); cxvi



- Playing a global leadership role to increase energy efficiency and accelerate
 the clean energy transition as one of the Vice-Chairs of the International
 Energy Efficiency Hub, and promoting the advancement of energy
 efficiency technologies, including through the joint Canada-United States
 Residential Cold Climate Heat Pump Challenge, cxvii which aims to accelerate
 deployment of high-performance cold climate heat pump technologies.
 (SDG 7 Affordable and Clean Energy; cxviii Target 7.3 Double the global
 rate of improvement in energy efficiency by 2030);
- Making zero-emission vehicles more affordable and accessible, and establishing a coast-to-coast fast-charging network for electric vehicles and fostering innovation (SDG 9 - Industry, Innovation and Infrastructure^{cxix} and SDG 12 - Responsible Consumption and Production);^{cxx}
- Continuing to support the development and deployment of Small Modular Reactors (SMR) to reduce emissions and decarbonize industry, and supporting the SMR Indigenous Advisory Council to review progress and discuss strategic priorities (SDG 7 - Affordable and Clean Energy^{cxxi} and SDG 9 - Industry, Innovation and Infrastructure);^{cxxii}





 Taking action to reduce emissions through the Emissions Reduction Fund by helping onshore and offshore oil and gas companies invest in green solutions (SDG 13 – Climate Action);^{cxxiii} and



• Identifying and rationalizing inefficient fossil fuel subsidies (SDG 12 - Responsible Consumption and Production). cxxiv

Key risks

The Department has identified risks that could impact its ability to contribute to innovative and sustainable natural resources development including those related to the impact of climate change and keeping abreast of the rapid pace of science and technological innovation. Risks identified include alignment with federal partners, engagement with external partners, and integration of IDEA considerations. These risks can be mitigated with measures such as strengthening existing strategic relationships with domestic partners and ensuring that IDEA practices are embedded in internal and external policies/programs. For more information, see the Key Corporate Risks section of this report.

Planned results for Innovative and Sustainable Natural Resources Development

The following table shows, for Innovative and Sustainable Natural Resources Development, the planned results, the result indicators, the targets and the target dates for 2023–24, and the actual results for the three most recent fiscal years for which actual results are available.

Departmental results	Performance indicators	Target	Date to achieve target	2019–20 actual results	2020–21 actual results	2021–22 actual results
Natural resource sectors are innovative	Percentage of NRCan-funded innovation projects that result in new intellectual property, codes, standards or regulations ⁹	At least 5% of projects will have IP or an impact on codes, standards or regulations by project completion (typically 3-4 years)	March 2024	30%	69%	67%
	Percentage of innovative forest products and decision tools informed by NRCan research that contribute to the environmental sustainability of Canada's forests	At least 95%	March 2024	Not available ¹⁰	100%	100%
	Percentage of NRCan-funded clean energy innovation projects advancing along the	At least 50% of research, development and demonstration projects advance one	March 2024	77%	37%	59%

⁹ This indicator tracks progress on results at the completion of NRCan-funded projects. As many projects are still ongoing, the figures serve only as an indication of progress to date. Results fluctuate based on program funding cohorts.

¹⁰ Historical information is not available as the indicator and its methodology were amended starting in 2020-21.

	nnovation cale ¹¹	level on the technological readiness scale by project completion (typically 3-4 years)				
in m te de N m be	Percentage of innovative inning echnologies eveloped by IRCan that nove towards eing ready for ommercial se	At least 25%	March 2024	Not available	22%	28%
in er N st se re C	lumber of nitiatives nabled by IRCan to trengthen the ecurity and esilience of canada's ritical energy of rastructure	Not available ¹²	Not available	Not available ¹³	Not available	27

¹¹ This indicator tracks progress on results at the completion of NRCan-funded projects. As many projects are still ongoing, the results do not represent the full program portfolio and serves only as an indication of progress to date. Results fluctuate based on program funding cohorts.

¹² A target was not established for this indicator as the Cyber Security and Critical Energy Infrastructure Protection transfer payment program will be ending on March 31, 2023.

¹³ Historical information is not available for this indicator was added to NRCan's Departmental Results Framework in 2020-21.

Clean technologies and energy efficiencies enhance economic performance	Percentage of NRCan-funded clean technology demonstration projects achieving their economic goals	At least 50% success rate measured by project completion (typically 3-4 years)	March 2027	Not available ¹⁴	Not available ¹⁵	46% ¹⁶
	Ratio of partner investment to government spending in NRCan-funded energy innovation projects	At least 1:1 ratio of partner investment to NRCan investment	March 2024	3:1	2:1	2.5: 1
	Total annual energy savings resulting from adoption of energy efficiency codes, standards and practices	Annual savings of at least 600 petajoules (PJ)	March 2030	35.6PJ	66.7PJ	80.0PJ
Canada's natural resources are sustainable	Percentage of Canadian electricity generated from non-GHG emitting sources	100% ¹⁷	January 2035	82%	83%	Not available ¹⁸

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¹⁴ This indicator tracks progress on results at the completion of NRCan-funded projects. Not enough projects with economic goals were completed in 2019-20 to meaningfully report on this indicator.

¹⁵ This indicator tracks progress on results at the completion of NRCan-funded projects. As the program was extended through 2021-22 due to the COVID-19 pandemic, not enough projects that report on this indicator were completed in 2020-21 to meaningful report.

¹⁶ This indicator tracks progress on results at the completion of NRCan-funded projects. This is the first year that NRCan has reported on this indicator. As many projects are still ongoing, the figure represents a fraction of the full program portfolio and serves only as an indicator of progress to date.

¹⁷ The 100% target is to be reached by January 2035 hence the program cannot set an annual target.

¹⁸ The next data update will be available later in 2023. Reporting has been impacted due to the delayed availability of statistics amid the COVID-19 pandemic.

Number of renewable energy projects in remote communities and off-grid industrial operations	At least 100	March 2027	1 ¹⁹	21 ²⁰	921
Amount of wood harvested compared to the sustainable supply	Harvest is less than sustainable supply	March 2024	155 million m³ total harvest versus total wood supply of 220 million m³ (SoF, 2019 – data from 2017)	m ³ total harvest versus total wood supply of 217.9 million	139.8 million m³ total harvest versus total wood supply of 218.1 million m³. (SoF 2021 - Data from 2019)

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¹⁹ This indicator measures the number of completed renewable energy projects in remote communities and off-grid industrial operations in 2019-20. While one project was completed in 2019-20, NRCan supported 35 additional projects for funding in the Clean Energy for Rural and Remote Communities Program towards the 2027 target.

²⁰ This indicator measures the number of completed renewable energy projects in remote communities and off-grid industrial operations in 2020-21. While 21 projects were completed in 2020-21, 93 projects are being supported through the Clean Energy for Rural and Remote Communities Program towards the 2027 target.

²¹ This indicator measures the number of completed renewable energy projects in remote communities and off-grid industrial operations in 2021-22. After two rounds of intake, program funding is fully allocated, with 111 projects supported and 115 agreements signed: 41 for the BioHeat stream, 17 for Demonstration, and 57 for Deployment and Capacity Building. 31 of these projects are now complete to date.

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²² Results are only reported once GHG emission reduction estimates have been assessed and validated at project completion and/or during the five-year project outcomes reporting period. Some projects experienced delays in 2019-20 due to the COVID-19 pandemic.

²³ On track for 2030 target. Projects are underway. Results are only reported once GHG emission reduction estimates have been assessed and validated at project completion and/or during the five-year project outcomes reporting period.

²⁴ Results are only reported once GHG emission reduction estimates have been assessed and validated at project completion and/or during the five-year outcomes reporting period. Program duration was extended through 2021-22 due to the COVID-19 pandemic.

²⁵ On track for 2030 target. Results are only reported once GHG emission reduction estimates have been assessed and validated at project completion and/or five-year project outcomes reporting. As GHG reductions for demonstration projects are only realized from the implementation, operation, replication of technologies or solutions, it may take several years for environmental outcomes to accrue.

²⁶ On track for 2027 target. Results are only reported once GHG emission reduction estimates have been assessed and validated at project completion and/or five-year project outcomes reporting. As GHG reductions for demonstration projects are only

Number of charging and refueling stations under development or completed	At least 1000 ²⁸ electric vehicle charging stations At least 22 natural gas refuelling stations At least 15 hydrogen refuelling stations	March 2024	Electric vehicle charging stations = 837 Natural gas refuelling stations = 21 Hydrogen refuelling stations = 8	Electric Vehicle charging stations = 1,089 Natural gas refuelling stations = 22 Hydrogen refuelling stations = 15	Electric Vehicle charging stations = 25,365 Natural gas refuelling stations = 22 Hydrogen refuelling stations = 15
Percentage of NRCan's projects on innovation and sustainable development that engage Indigenous communities, organizations or governments	10%	March 2024	Not available ²⁹	8.3%	17.17%

The financial, human resources and performance information for the Natural Resources Canada's program inventory is available on GC InfoBase. cxxv

realized from the implementation, operation, replication of technologies or solutions, it may take several years for environmental outcomes to accrue.

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²⁷ On track for 2030 target. Results are only reported once GHG emission reduction estimates have been assessed and validated at project completion and/or five-year project outcomes reporting. As GHG reductions for demonstration projects are only realized from the implementation, operation, replication of technologies or solutions, it may take several years for environmental outcomes to accrue.

²⁸ In 2019 and 2020, NRCan received new funding for zero-emission infrastructure and revised the targets of EV chargers from 1,000 to 34, 500 and of hydrogen refuelling stations from 15 to 25. The target for natural gas refuelling stations was not affected as the new funding excluded natural gas refuelling infrastructure. These targets are made up of the Zero-Emission Vehicle Infrastructure Program (ZEVIP) and Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative (EVAFIDI) programs.

²⁹ Historical information is not available as the indicator and its methodology were amended starting in 2020-21.

Planned budgetary spending for Innovative and Sustainable Natural Resources Development

The following table shows, for Innovative and Sustainable Natural Resources Development, budgetary spending for 2023–24, as well as planned spending for that year and for each of the next two fiscal years.

	the contract of the contract o	2024–25 planned spending	2025–26 planned spending
\$2,449,656,044	\$2,449,656,044	\$2,415,542,267	\$1,457,702,374

Financial, human resources and performance information for Natural Resources Canada's program inventory is available on GC InfoBase. cxxvi

Planned human resources for Innovative and Sustainable Natural Resources Development

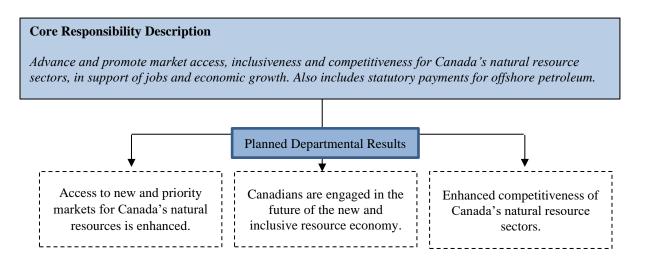
The following table shows, in full-time equivalents, the human resources the Department will need to fulfill this core responsibility for 2023–24 and for each of the next two fiscal years.

2023–24 planned full-time equivalents		2025–26 planned full-time equivalents
2,107	2,001	1,938

Financial, human resources and performance information for Natural Resources Canada's program inventory is available on GC InfoBase. cxxvii



Globally Competitive Natural Resource Sectors



Planning highlights

Canada's economy is reliant on international trade related to its natural resources. To support the competitiveness of Canada's natural resource sectors, it is important to follow modernization that comes with the transition to a low-carbon economic as natural resource sectors of the future become more innovative, greener and digital.

Access to new and priority markets for Canada's natural resources is enhanced

To uphold Canada's international status as a clean and reliable energy supplier of choice, NRCan continues to negotiate with international bodies with G7, cxxviii G20, cxxii UNFCCC, cxxxi WTO, cxxxii APEC, cxxxiii OECD, cxxxiii OECD, cxxxiii on new or proposed energy-related commitments. To further enable engagement on key energy activities, NRCan will support Canadian representatives in plenary and negotiation sessions, bilateral engagement and public communications.

Regulatory stability is a crucial factor for investors and the business community when considering long-term planning, especially when investments are significant and span many years. In 2023-24, NRCan will collaborate with partners and stakeholders to amend and implement legislative frameworks regarding the Offshore Area Accord Acts that support responsible and safe offshore energy development and production with a more modernized framework.

NRCan is an important part of the Government of Canada's ongoing support for Ukraine. The Department will continue to coordinate assistance to Ukraine in collaboration with international allies, including the US, the European Union and other G7 members to coordinate on identifying Ukraine's needs, verifying equipment compatibility, and arranging for the transport of energy infrastructure goods. This includes continuing work with Global Affairs Canada to canvass industry for goods and equipment to support Ukraine's energy system and with the Department of National Defence on logistics for the transportation of goods. NRCan will identify areas of expertise and capacity to best direct assistance to Ukraine's reconstruction.

In response to the Russia's illegal invasion of Ukraine, NRCan will continue its effort to welcome Ukraine-based scientists into NRCan and other Science-Based Departments and Agencies, through temporary employment under Canada-Ukraine Science Partnership, a pilot in the broader Canada-International Science Partnerships initiative, which aims to provide similar support to scientists fleeing from other international areas of crisis. This initiative will aim to temporarily host up to at least 20 scientists for the maximum of 3 years in NRCan labs and offices across Canada.

Efforts to foster increased opportunities for Canadian companies in the natural resource sectors will continue to be part of international engagements. In keeping with the Government of Canada's Indo-Pacific Strategy, NRCan's international engagements in the region will contribute to strengthening supply chains and facilitating stronger business-to-business relationships.

NRCan, together with Global Affairs Canada, continues to work to ensure oil and gas exports can access Canada's largest market, the United States, and that critical supply chains are protected from disruption, whether by state or non-state actors. This includes efforts to keep the Enbridge Line 5 pipeline safely operating, in coordination with affected provinces.

NRCan, working with other implicated agencies and departments, will ensure regulatory and ministerial decisions on federally-regulated market access projects (e.g., pipeline certificates, export licences) are processed in a timely manner and reflect the full spectrum of considerations for decision-makers.

Forest Sector Competitiveness

NRCan will continue to engage with Indigenous groups and communities in economic development projects. For example, the Indigenous Forestry Initiative (IFI) will support Indigenous-led economic development projects as a means to support ongoing Indigenous participation in the forest sector throughout the COVID-19 recovery.

Canadians are engaged in the future of the new and inclusive resource economy

Nòkwewashk

Through NRCan's newly created sector, Nòkwewashk, the Department will lead efforts to advance economic reconciliation by supporting the expansion of partnerships with Indigenous groups through the Indigenous Partnerships Office, the National Benefits Sharing Framework, a key commitment in the Minister's mandate letter and the Indigenous Natural Resources Program which provides capacity funding to Indigenous groups to participate in projects on or near their territories. The department will maintain and build upon its existing relationships with Indigenous organizations, including National Indigenous Organisation, to ensure that departmental programs and policies reflect Indigenous interests and priorities.

NRCan will support interactions with Indigenous groups across Canada so that those engagements are carried out in a manner consistent with the Government's commitment to reconciliation. This supports federal UN Declaration Act (UNDA) implementation efforts by engaging meaningfully in partnerships with federal departments, regulatory bodies, provincial governments, industry stakeholders and Indigenous partners and facilitating transformative change in how Indigenous peoples, communities, and businesses participate in sustainable natural resources development.

NRCan will continue to lead efforts to address the Calls for Justice from the *Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls*, specifically those addressed to the extractive and development industries (13.1-13.5) to ensure safe and secure resource development. The importance of addressing the Calls for Justice was further underscored in a report tabled in Parliament on December 14, 2022, by the Parliamentary Standing Committee on the Status of Women (FEWO) titled: *Responding to the Calls for Justice: Addressing Violence Against Indigenous Women and Girls in the Context of Resource Development Projects*, which included recommendations and observations urging the Government of Canada to do more to address Calls for Justice 13.1-13.5.

To advance work in this area, NRCan will continue to foster meaningful relationships with National Indigenous Women's Organizations, Indigenous and industry partners, other government departments and provincial and territorial governments to identify priorities related to safety and security and equitable benefits to collaboratively develop and implement actions to address resource development related violence against Indigenous women, girls and 2SLGBTQQIA+ people.

The Department will provide ongoing support to Indigenous Advisory and Monitoring Committees (IAMCs) established for the Line 3 Replacement Program and the Trans Mountain Expansion (TMX) Project. The IAMCs allow Indigenous communities, regulators, and the federal government, to work collaboratively with proponents, better understand industry standards and technical matters associated with marine and pipeline safety, emergency planning and response, and socio-economic impacts. NRCan will also continue to play a role in the coordination function of programs related to TMX Phase III. The Government of Canada's implementation of the commitments made to Indigenous groups during Phase III consultations is being driven by individual departments.

Youth Employment and Skills Strategy - Science and Technology Internship Program (Green Jobs)

The Department will continue to deliver its Science and Technology Internship Program (STIP – Green Jobs) cxxxvi through the Government's Youth Employment and Skills Strategy by funding employers across Canada to create jobs and training opportunities for youth aged 15 to 30 (inclusive) in all natural resources sectors. This Program places a particular emphasis on serving youth from employment equity groups (women, visible minorities, Indigenous Peoples, persons living with disabilities), and youth experiencing barriers to employment (e.g., youth living in remote and northern communities) to ensure a more diverse and inclusive natural resources sector that is future-ready.

Enhanced competitiveness of Canada's natural resource sectors

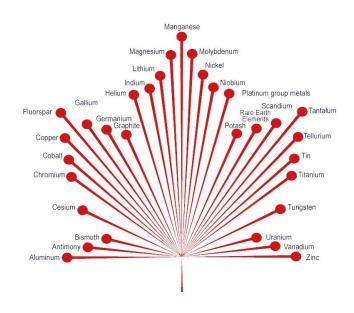
Provision of Federal Leadership in the Minerals and Metals Sector

The Department has released a Canadian Critical Minerals Strategy cxxxvii to supply the green and digital economy and improve critical minerals supply chain resiliency. In collaboration provincial, territorial and Indigenous governments along with industry and trading partners, the Strategy will position Canada as a supplier of choice for critical minerals and materials. The Strategy will focus on six areas for federal initiatives and investment:

- Drive research, innovation and exploration;
- accelerate project development;
- build sustainable infrastructure;
- advance Indigenous reconciliation;
- grow a diverse workforce and prosperous communities; and
- strengthen global leadership and security.

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NRCan will continue to collaborate with federal, provincial, and territorial governments to implement actions under the Canadian Minerals and Metals Plan^{cxxxviii} (CMMP). Furthermore, the Department's administration of the Extractive Sector Transparency Measures Act^{cxxxix} and the Export and Import of Rough Diamonds Act, cxl along with Canada's supporting country status in the international Extractive Industries Transparency Initiative, has made Canada a global leader in implementing and promoting transparency and good governance in the global mining, oil and gas industries.



Energy Safety and Security, and Petroleum Resources

To enhance market access and reduce greenhouse gas (GHG) and methane emissions, the Department will develop models to assess implications of regulations such as carbon pricing, emissions cap, Carbon Capture Utilization, and Storage, cxli clean fuels regulations, methane regulations. NRCan will continue to develop suitable production projection scenarios necessary to demonstrate the impacts of policy considerations and quantify impact of carbon leakage to respond to Canada's commitment to reaching net-zero greenhouse gas emissions by 2050.

In maintaining Canada's global competitiveness in the context of a global energy transition, NRCan will enhance Canada's profile and opportunities through international engagement. This will ensure energy security and affordability for consumers and industry, domestically and internationally. Under this responsibility, the Department will report and advise on oil, gas and other sources of energy, and provide readily available socioeconomic and market analyses.

At the same time, NRCan will continue to support Canada's participation with the International Energy Agency^{cxlii} Task Force on Gas Market Monitoring and Supply Security, which was established to provide recommendations to support secure and stable European natural gas markets next winter in light of Russia's natural gas export curtailment. Canada's commitment to global climate change mitigation will help ensure that European natural gas markets stabilize in a way that also considers longer term climate objectives.

While petroleum, natural gas, coal and hydrocarbon gas liquid remain vital to Canada's energy supply, employment and economic activity, the industry is transitioning to alternatives to move toward a low-carbon future. NRCan will continue to support the oil and natural gas sector's efforts to decarbonize, improve ESG performance, and position itself as a global leader in the production and export of lower carbon energy products. The Department will continue to assess Canada's energy infrastructure needs to ensure energy security and affordability for consumers

and industry, domestically and internationally, is supported by a competitive oil and gas industry that is able to operate to high ESG standards in the context of a global energy transition.

Since the Department's launch of the Net Zero Producer's Forum, cxliii NRCan continues organizing workshops and meetings and discuss net-zero strategies to advance collaboration with Net Zero Producer's Forum members. As the departmental liaison for the Oil Sands Pathways Alliance, NRCan will continue to engage ISED in the implementation of the Net Zero Accelerator Initiative cxliv and ECCC to discuss Pathways proposal.

The Department will support the development and ongoing review of regulations and policy under the *Canadian Energy Regulator Act*^{cxlv} to ensure the long-term effectiveness and to maximize safety, security and environmental protection for Canada's energy sector. As well, NRCan will work with partners and stakeholders to advance the implementation of statutes and provide expertise and support to the Canada Energy Regulator and the Impact Assessment Agency of Canada.

NRCan will also work with other federal departments to maintain domestic and advance global food and fertilizer security. The Department provides advice on how Canada's abundant and relatively affordable natural gas supply could be leveraged to support nitrogenous fertilizer production.

Innovation

Innovation entails finding new ways to solve persistent problems. Experimentation and applying behavioural science insights are both evidenced-based, data-driven approaches that are being applied. These approached help NRCan design and test scalable solutions that lead to meaningful and effective policies and programs.

NRCan is using experimentation and behavioural science insights to drive better outcomes related to ensuring a globally competitive and inclusive natural resource sectors.

Cyber security: One of the main pillars of the new National Cyber Security Strategy is finding new and different ways of approaching cyber security challenges. The Cyber Security team at NRCan is focused on using experimentation and behaviour science approaches to develop innovative responses, including for example behaviours related to management of suspicious emails.

Canadian Forest Service (CFS): CFS is planning to conduct experimentation about climate change narratives using an Indigenous lens in 2023-24. This will include working with Indigenous leaders and experts to explore how to make our climate narratives more inclusive of diverse perspectives. Furthermore, this work aligns with the International Panel on Climate Change's work on storylines as an important social science component of climate communication.

Gender-Based Analysis Plus

The **Indigenous Forestry Initiative** (IFI), under the Forest Sector Competitiveness Programs continues to address impacts on equity deserving groups by requiring proponents, except Indigenous governments, to develop a workforce diversity plan which will help IFI assess the number of Indigenous Peoples benefitting from the program and indicate the proportion of women and youth involved in IFI funded projects. The **Indigenous Natural Resource Partnerships** program will continue to provide funding to further increase the participation of Indigenous communities and organizations in natural resource and energy infrastructure development projects. The program has preferential assessment criteria for supporting the increased participation of underrepresented groups, including Indigenous women. Finally, the **Science and Technology Internship Program** (STIP - Green Jobs) will continue to identify gaps in youth participation and adjust the program design, delivery and investments where needed, to build a pool of diverse talent in the natural resources sectors as part of the transition to an inclusive and net-zero economy.

United Nations 2030 Agenda for Sustainable Development and the Sustainable Development Goals

The planned activities that will help the Department attain the Sustainable Development Goals under the Core Responsibility for Globally Competitive Natural Resource Sectors include:



- Engaging with key partners to advance international efforts that enhance global energy security, energy system transformation, climate change mitigation and inclusive and equitable clean energy transitions (SDG 7 Affordable and Clean Energy^{cxlvi} and SDG 17 Partnerships for the Goals);^{cxlvii}
- Contributing to sustainable consumption and production patterns, while
 positioning Canada as a reliable, sustainable, and responsible source of natural
 resources through initiatives such as Canada's Critical Minerals Strategy (SDG
 12- Responsible Consumption and Production^{extviii} and SDG 13 Climate
 Action); extix



- Supporting youths in Canada to develop the skills and knowledge required for careers in natural resource sectors through the Science and Technology Internship Program (STIP Green Jobs) (SDG 8 Decent Work and Economic Growth);^{cl}
- Continuing to develop Framework Regulations to modernize and elevate standards for safety, environmental protection, and resource management for frontier and offshore oil and gas activities in Canada (SDG 9- Industry, Innovation and Infrastructure);^{cli} and
- Creating meaningful change to how Indigenous Peoples, communities, and businesses participate in sustainable natural resource development by implementing the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (SDG 10 – Reduced Inequalities).^{clii}

Key risks

The Department has identified risks that could impact its ability advance and promote market access, inclusiveness and competitiveness for Canada's natural resource sectors including engagement with external partners, navigating international and domestic regulatory frameworks, and reconciliation. These risks can be mitigated with measures such as strengthening existing strategic relationships with domestic and international partners, as well as further engaging with Indigenous partners and industry in 2023-24 to deepen discussion on implementation of the UNDRIP Act. For more information, see the Key Corporate Risks section of this report.

Planned results for Globally Competitive Natural Resources Sectors

The following table shows, for Globally Competitive Natural Resources Sectors, the planned results, the result indicators, the targets and the target dates for 2023–24, and the actual results for the three most recent fiscal years for which actual results are available.

Departmental results	Performance indicators	Target	Date to achieve target	2019–20 actual results	2020–21 actual results	2021–22 actual results
Access to new and priority markets for Canada's natural resources is enhanced	Canada's share of U.S. and global imports of natural resources	Canada's market share in the U.S. = At least 25.5% of total U.S. imports (in value) Canada's market share in the world (non-U.S.) = At least 1.4 of the total world imports (in value)	March 2024	26.8 % (U.S.) 1.5% (global imports)	24.6% (U.S.) 1.5% (global imports)	28.4% (U.S.) 1.4% (global imports)
	Increase in value of assets abroad owned by Canadian natural resource companies	At least \$225.0 billion	July 2024	\$231B	Not available ³⁰	\$240 billion
	Number of NRCan international engagements that support the development	At least 40	March 2024	42	59	66

³⁰ Data not available until 2023.

	or expansion of trade and investment in natural resources					
Canadians are engaged in the future of the new and inclusive resource economy	Number of joint products developed in collaboration with provinces and territories and released to Canadians	At least 12	March 2024	15	21	21
	Percentage of NRCan's projects that support participation of Indigenous communities, organizations or governments in Canada's natural resource economy	19%	March 2024	Not available ³¹	63.27%	72.44%
Enhanced competitiveness of Canada's natural resource sectors	Economic value of anticipated natural resource projects supported by analysis and solutions ³²	\$50.6 billion	March 2024	Not available	Not available	\$22.7B ³³

³¹Historical information is not available as the indicator and its methodology were amended starting in 2020-21.

³² Historical information is not available as the indicator and its methodology were amended starting in 2020-21.

³³ A more inclusive and comprehensive approach was taken when assessing natural resource projects in 2021-22. This included projects tracked by the Impact Assessment Agency of Canada's Assistant Deputy Minister Impact Assessment Secretariat for which NRCan contributed analysis and/or solutions.

The financial, human resources and performance information for the Natural Resources Canada's program inventory is available on GC InfoBase. cliii

Planned budgetary spending for Globally Competitive Natural Resources Sectors

The following table shows, for Globally Competitive Natural Resources Sectors, budgetary spending for 2023–24, as well as planned spending for that year and for each of the next two fiscal years.

2023–24 budgetary spending (as indicated in Main Estimates)	· ·		2025–26 planned spending
\$1,850,449,920	\$1,850,449,920	\$1,862,452,656	\$1,689,989,629

Financial, human resources and performance information for Natural Resources Canada's program inventory is available on GC InfoBase. cliv

Planned human resources for Globally Competitive Natural Resources Sectors

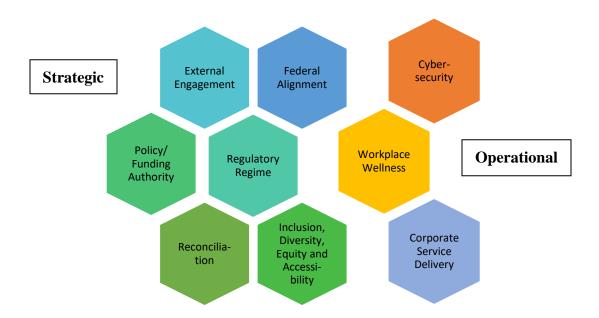
The following table shows, in full-time equivalents, the human resources the Department will need to fulfill this core responsibility for 2023–24 and for each of the next two fiscal years.

2023–24 planned full-time equivalents			2025–26 planned full-time equivalents	
	528	487	455	5

Financial, human resources and performance information for Natural Resources Canada's program inventory is available on GC InfoBase.

Key Corporate Risks

As NRCan enters a post-pandemic world with an evolving geo-political environment, there are a multitude of external and internal factors that could impede our ability to deliver on our mandate and priorities. There continues to be severe impacts to the global economy that exposes the Canadian natural resource sector to a higher degree of risk. Climate change is also having environmental impacts, leading to changes in adaptation and emergency management. During this time, NRCan has continued to monitor risks to deliver its mandate and core responsibilities. For the next three years, NRCan has identified six strategic risks and three operational risks to be managed. Strategic risks threaten an organization's ability to deliver expected outcomes, which can harm the organization's ability to grow and prosper. Operational risks stem from inadequate or failed internal procedures, employee errors, cybersecurity events, or external events such as weather disasters.



Strategic Risks

As the department looks to deliver on Mandate Letter Commitments, meet legislative requirements, and achieve program objectives NRCan must successfully secure **policy and funding authorities** in a timely manner or receive accelerated funding with short ramp-up periods. NRCan's ability to have a cohesive federal approach and create the conditions for success needed to drive fast-paced transformation is also contingent on successful **alignment with other federal departments** and collaborate with PT governments.

To deliver on its priorities and maintain a positive reputation externally, NRCan must establish strategic partnerships with external stakeholders and secure program **engagement/uptake**. In

addition, the Department's ability to advocate for Canada's natural resource sectors internationally requires addressing international and domestic **regulatory frameworks**.

To advance **reconciliation**, NRCan must meet or be perceived to have met, calls to action for meaningful support to advance reconciliation. Failing to do so would result in unfavorable views about the government's commitment to meaningfully partner with Indigenous peoples. Further, NRCan's reputation with stakeholders and employees will be negatively impacted if the Department does not fulfill internal and external **inclusion**, **diversity**, **equity and accessibility** (IDEA) commitments linked to workforce and NR sector transformation, particularly if IDEA efforts slip due to competing priorities.

Operational Risks

As NRCan's mandate continues to expand, NRCan must continuing to review and modernize operational requirements for **corporate services** to maintain necessary corporate systems and capacity for efficient program and service delivery. NRCan must also put people first by ensuring **workplace wellness** to avoid the workforce being negatively affected, which would impede the Department's ability to meet its objectives and deliver effective and timely programs and services to Canadians. Further, delivering on mandated priorities, sustaining program delivery, and advancing scientific research requires continuing to implement integrated measures to **reduce the threat of cyberattacks** to data assets and strengthen NRCan's ability to effectively respond to natural disasters.

Risk Monitoring and Mitigation

NRCan will continue to monitor these risks in the context of its integrated planning process. This approach will provide assurance to senior management and key stakeholders that potential risks are regularly identified and monitored, and that actions are taken when required. The goal is that the risk information will be considered when making decisions and reinforces sound risk management practices continue to be integrated within the Department.



Internal services: planned results

Description

Internal services are the services that are provided within a department so that it can meet its corporate obligations and deliver its programs. There are 10 categories of internal services:

- management and oversight services
- communications services
- legal services
- human resources management services
- financial management services
- information management services
- ▶ information technology services
- real property management services
- ▶ materiel management services
- acquisition management services

Planning highlights

Future of Work – Growing #OurNRCan

NRCan continues to transition toward a hybrid work model that is flexible, productive, agile and inclusive. Its goal is to enable work—life balance while maximizing efficiency and effectiveness; achieve greater diversity and be more regionally inclusive; and provide access to talent and skills from across Canada. #OurNRCan will enable the GC evolution to digital and hybrid work by investing in and implementing the infrastructure, equipment, and tools necessary for workplaces of the future.

An office presence strengthens departmental culture, collaboration/communication, and the sense of personal connection which has been missing through much of the pandemic and the Department is adapting based on lessons learned.

In an on-going effort to ensure that staff are aware of all the tools and training available to them as they navigate the new hybrid work approach, communications plans and products will be created to provide the best course of action for disseminating messaging to all staff. Some of the areas of focus include:

• Building a hybrid work section on the Department's Intranet to provide employees with easy access to all the information they need;

- Hybrid Work Survey communications and engagement on the launch of the second hybrid work survey, as well as communicating the results and any upcoming changes associated with the feedback received;
- Continued messages of the existing tools and new tools that are available to staff to help facilitate the new hybrid style of working;
- Additional space modernization projects are being developed and implemented across our regional facilities to better support and enable the adoption of the hybrid work model.

Moving forward into 2023-2024, NRCan will focus on monitoring the hybrid work model's progress and measuring its impacts on people management through a data-driven, evidence-based initiative. This approach will ensure employees are supported in a healthy, safe, and secure work environment, and that the Department continues to provide valuable service to Canadians.

As part of the Open Science Action Plan^{clvi} (OSAP), NRCan will promote Open Science, Open Publications and Open Data, and implement the OSAP Performance Measurement Strategies to monitor and facilitate the progress made to achieve the desired outcomes. Strengthening public, employee and stakeholder trust in the credibility and reliability of NRCan research and scientific activities is key for creating a culture of open, trustworthy and accountable science. In 2023-24, NRCan will continue implementing the Scientific Integrity Policy^{clvii} for scientific communication, Science & Technology publications and allegations of breaches to the policy. By enhancing employee understanding of the contributions of research and science to evidence-informed decision-making, NRCan is better equipped to develop government policy and advice to benefit Canadians.

In collaboration with PSPC Laboratories Canada, clviii NRCan is strongly committed to the whole-of-government initiative of strengthening federal science in Canada. The Department will work towards consolidating portions of our science facilities under new, world-class laboratory facilities that will meet the current and future needs of scientists and enhance collaboration with internal and external partners. NRCan is contributing to transforming the delivery of science in the federal science ecosystem by promoting an integrated science vision and plan with its partners and reducing barriers to scientific collaboration. To achieve this, the Department is leading the TerraCanada^{clix} Science Hub along with the National Research Council, Health Canada, Environment and Climate Change Canada, and the Canadian Nuclear Safety Commission. TerraCanada will promote transdisciplinary, collaborative research and development and innovation along three themes: sustainable land and resource development; low-carbon economy; and the safety and health of Canadians.

Employee Wellness and Wellbeing

The Department will hold consultations to renew a three-year Mental Health and Workplace Wellness Strategy, which will be based on the three strategic goals and nine pillars of the Federal Public Service Workplace Mental Health Strategy. The consultation process will focus on ensuring that all staff can provide input and feedback on initiatives and activities that they feel should be reflected in the updated Strategy.

Through the Office for Inclusion, Diversity, Equity and Accessibility (O-IDEA), coordination will ensure inclusion, diversity, equity and accessibility efforts across NRCan, supporting sectors and networks in implementing and reporting on their initiatives and their progress.

Each NRCan sector has developed its own action plan that is in the process of being implemented. The action plans focus on shifting to an inclusive and psychologically safe culture, building a more representative workforce, and updating our policies, programs and research initiatives to embed practices and principles of IDEA into the departmental DNA.

The Department will also implement its 2022-2025 Accessibility Action Plan.

The goals are to diversity the workforce by closing representation gaps and create a culture of safety and inclusion in the workplace while ensuring that NRCan's workplace programs and practices are accessible and inclusive by design.

Through its expanded programming, NRCan's Circle of Nations will continue to build cultural competency by providing federal government employees opportunities to learn about Indigenous ways of knowing. NRCan's Elders in Residence program promotes awareness and understanding of Indigenous histories, traditions, and cultures by providing employees access to Elders who are actively engaged in their communities and in traditional practices.

Digital Transformation

NRCan will seek to implement service transformation in response to Canada's Digital Ambition. clx The NRCan Digital Strategy will focus on four themes:

- 1. Excellence in technology and operations to maximize effectiveness and value assurance of technology investments across NRCan.
- 2. Data-enabled digital services and programs to drive departmental improvement in client and employee services, data, and cross-agency integration. This includes all the work that the Department is doing with the Future of Work Growing #OurNRCan.
- 3. Action-ready digital strategy to enable safe, secure, reliable and privacy enabled operations.
- 4. Changes in structure for funding talent and culture to prioritize and unlock the full value of digital investment. This is following the lead from the Office of the Chief Information Officer of Canada on the Directive on Digital Talent.

NRCan intends to benefit from the advantages of digital transformation by increasing its cyber resilience. NRCan will implement its Cyber Security Strategy to increase its ability to maintain the delivery of its key functions and services and to ensure the protection of its data, despite adverse cyber security events. Cyber resilience remains a cost effective and impactful lever against cyber threat and is included in the third theme of the Canada's Digital Ambition.

Communications plans and products will support the development and implementation of NRCan's Digital Transformation to ensure staff are aware of the initiatives that impact the work of the Department.

Planning for Contracts Awarded to Indigenous Businesses

NRCan is positioned to meet the commitment of awarding 5% of its annual procurement budget to Indigenous owned businesses. NRCan conducts significant work in Nunavut and in other Comprehensive Land Claim areas, through the Polar Continental Shelf Program, the Surveyor General Branch, the GEM-GeoNorth, and the Space-Based Earth Observation Program. Results from the previous FYs show that NRCan was successful in meeting the 5% target through its regular departmental work; therefore, it is anticipated that NRCan will continue to meet the 5% minimum target in FY 2023-24.

In addition to the above-mentioned programs, NRCan has also modified its internal procurement business processes to ensure all Indigenous-owned businesses pre-qualified by Public Services Procurement Canada to provide goods and services through pre-competed instruments, are invited to every applicable NRCan Request for Proposal (RFP). For example, the NRCan Information Technology Omnibus RFPs are inclusive of all pre-qualified Indigenous-owned businesses.

As noted in the table below, NRCan has exceeded the expected minimum target for FY 2022-23 and is currently reporting 18.85% from the period of April 1, 2022, to November 28, 2022. This is largely attributable to a new procurement strategy of tendering multiple IM/IT multi-year contracts for professional services that can be leveraged throughout the Department. It is expected that results will return to historical levels for FY 2023-24 of around 5%-7%.

5% reporting field description	2021-22 actual % achieved	2022-23 forecasted % target	2023-24 planned % target
Total percentage of contracts with Indigenous businesses	For FY 2021-22, NRCan awarded 7% of its total procurement budget for Indigenous businesses.	From April 1, 2022, to November 28, 2022, NRCan has awarded 18.85% of its total procurement budget to Indigenous businesses.	Based on historic trends, NRCan expects to award a minimum of 5% of its total procurement budget to Indigenous businesses.

Planned budgetary spending for internal services

The following table shows, for internal services, budgetary spending for 2023–24, as well as planned spending for that year and for each of the next two fiscal years.

	·	2024–25 planned spending	2025–26 planned spending
\$193,686,869	\$193,686,869	\$183,655,403	\$174,888,671

Planned human resources for internal services

The following table shows, in full-time equivalents, the human resources the Department will need to carry out its internal services for 2023–24 and for each of the next two fiscal years.

2023–24 planned full-time equivalents		2025–26 planned full-time equivalents
1,336	1,260	1,255

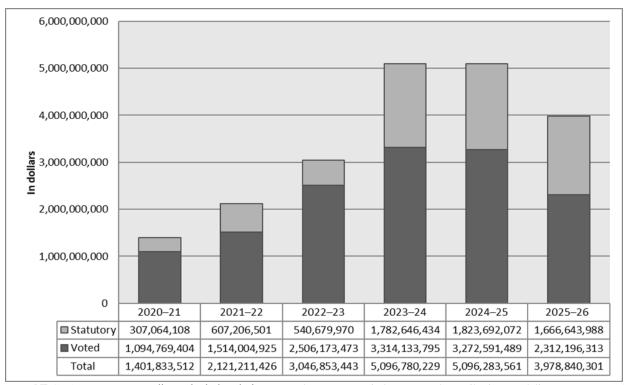
Planned spending and human resources

This section provides an overview of the Department's planned spending and human resources for the next three fiscal years and compares planned spending for 2023–24 with actual spending for the current year and the previous year.

Planned spending

Departmental spending 2020-21 to 2025-26

The following graph presents planned spending (voted and statutory expenditures) over time.



Note: NRCan's program expenditures include salaries, non-salary costs, capital, grants and contributions to deliver programs and statutory items.

Planned spending in Voted authorities from 2023-24 to 2025-26 is declining, mainly due to reduced funding profiles for major initiatives and sunsetting programs. Sunsetting programs could be renewed pending future budgetary decisions. Outcomes of such decisions will be reflected in the Department's future budget exercises and Estimates documents.

Planned spending in Statutory authorities shows a variation from 2023-24 to 2025-26 mainly due to the Atlantic Offshore Accounts. Statutory payment obligations under these accords are largely driven by oil and gas prices, production levels and anticipated corporate income taxes related to offshore operations. The planned spending is based on the Department's economic modeling forecasts prepared in the fall of 2022.

Budgetary planning summary for core responsibilities and internal services (dollars)

The following table shows information on spending for each of Natural Resource Canada's core responsibilities and for its internal services for 2023–24 and other relevant fiscal years.

Core responsibilities and internal services	2020–21 actual expenditures		2022–23 forecast spending	2023–24 budgetary spending (as indicated in Main Estimates)	2023–24 planned spending	2024–25 planned spending	2025–26 planned spending
1.Natural Resources and Risk Mitigation	\$207,697,165	\$326,773,358	\$407,331,483	\$602,987,396	\$602,987,396	\$634,633,235	\$656,259,628
2.Innovative and Sustainable Natural Resources Development	\$560,924,909	\$833,168,889	\$1,612,009,740	\$2,449,656,044	\$2,449,656,044	\$2,415,542,267	\$1,457,702,374
3.Globally Competitive Natural Resource Sectors	\$470,921,143	\$802,059,928	\$833,393,301	\$1,850,449,920	\$1,850,449,920	\$1,862,452,656	\$1,689,989,628
Subtotal	\$1,239,543,217	\$1,962,002,175	\$2,852,734,524	\$4,903,093,360	\$4,903,093,360	\$4,912,628,158	\$3,803,951,630
Internal services	\$162,290,295	\$159,209,251	\$194,118,919	\$193,686,869	\$193,686,869	\$183,655,403	\$174,888,671
Total	\$1,401,833,512	\$2,121,211,426	\$3,046,853,443	\$5,096,780,229	\$5,096,780,229	\$5,096,283,561	\$3,978,840,301

For 2020-21 and 2021-22, the figures represent the actual expenditures as reported in the Public Accounts of Canada, while those for 2022-23 represent the forecasted expenditures to year-end.

For 2023-24 to 2025-26, the figures represent total planned spending as per approved budgetary authorities in the 2023-24 Main Estimates to support NRCan program activities.

From 2020-21 to 2021-22, expenditures increased by \$0.72 billion, this is mainly attributed to incremental spending in grants and contributions programs such as Emissions Reduction Fund (ERF), planting 2 billion trees (2BT) by 2031, improving efficiency in homes, Smart Renewables and Electrification Pathways (SREPs), supporting young people to gain the skills and work experience for a successful transition into the labour market.

Additionally, there was increased spending in statutory transfer payments related to Offshore statutory programs, in particular for the Newfoundland Offshore Petroleum Resource Revenue Fund largely attributed to a higher royalty rate for the Hibernia field. Royalty amounts vary as a result of fluctuations in the price of oil, exchange rates, changes in production and timing of sales.

These increases in spending were offset by reduced spending due to the sunset of programs such as Clean Energy – ecoEnergy Renewable Power, and Covid-19 Safety Measures in Forest Sector Operations.

The overall increase of \$0.93 billion in forecast spending from 2021-22 to 2022-23 is mainly attributable to increases in funding for programs to help motivate and support new tree planting projects, improving energy efficiency in homes and transportation, deployment of ZEV charging infrastructure and fueling stations for alternative fuels, smart renewable energy and grid modernization projects, increase production of clean fuels, protect forests and communities from the spread of mountain beetle across Canada.

The increase in planned spending is offset by the sunset of programs such as Impact Canada and Clean Technology Growth, and a further decrease in funding for the Science and Technology Internship Program (STIP) and the Spruce Budworm program.

From 2022-23 to 2023-24, planned spending increased by \$2.05 billion, this is mainly attributable to an increase in payments under the Newfoundland Offshore Petroleum Resource Revenue Fund in addition to incremental funding for several of the programs already identified above. This increase is offset by a significant decrease in funding for ERF and Mountain Pine Beetle, and the sunset of programs such as Investments in Forest Industry Transformation, and Forest Innovation Program.

The overall decrease of \$1.12 billion from 2023-24 to 2025-26 is mainly due to decreases in planned spending for major programs such as the Home Retrofits, SREP, Statutory Offshore Payments, Zero Emissions Vehicle Infrastructure program and Clean Fuels Funds and Codes and Standards, as well as various sunsetting programs. This decrease is offset by an increase in funding for initiatives such as the Energy Efficiency programs, the Canada Green Buildings Strategy, 2BT and funding to counter the growing threat of wildfires through increased preparation and response capacity across Canada.

Planned human resources

The following table shows information on human resources, in full-time equivalents (FTEs), for each of Natural Resource Canada's core responsibilities and for its internal services for 2023–24 and the other relevant years.

Human resources planning summary for core responsibilities and internal services

Core responsibilities and internal services	2020–21 actual full-time equivalents	2021–22 actual full-time equivalents	2022–23 forecast full-time equivalents	2023–24 planned full-time equivalents	2024–25 planned full-time equivalents	2025–26 planned full-time equivalents
1.Natural Resources Science and Risk Mitigation	1,206	1,263	1,382	1,394	1,357	1,336
2.Innovative and Sustainable Natural Resource Development	1,650	1,735	2,025	2,107	2,001	1,938
3.Globally Competitive Natural Resource Sectors	494	465	500	528	487	455
Subtotal	3,350	3,463	3,907	4,029	3,845	3,729
Internal services	975	1,007	1,281	1,336	1,260	1,255
Total	4,325	4,470	5,188	5,365	5,105	4,984

For 2020-21 and 2021-22, the figures represent the FTEs as reported in the Departmental Results Report while 2022-23 represents the forecasted FTEs to year-end. For 2023-24 to 2025-26, the figures represent total Planned FTEs to support NRCan approved program activities.

NRCan's total FTE count remains relatively steady from 2020-21 to 2021-22. An increase in 2022-23 to 2023-24 is mostly due to the Energy Efficiency program (such as the Greener Neighbourhoods Pilot, Net Zero Codes Acceleration Fund, Deep Retrofit Accelerator Initiative and Greener Industrial Facilities and Manufacturing), Growing Canada's Forests, and Fighting

and Managing Wildfires in a Changing Climate. The decline in FTEs in the outer years relates mostly to the reduction of funding profiles and the sunsetting of major initiatives. As other new initiatives are undertaken, plans for future FTE requirements will be adjusted accordingly.

Estimates by vote

Information on Natural Resource Canada's organizational appropriations is available in the 2023–24 Main Estimates. clxi

Consolidated Future-Oriented Condensed Statement of Operations

The consolidated future-oriented condensed statement of operations provides an overview of NRCan's operations for 2022–23 to 2023–24.

The amounts for forecast and planned results in this statement of operations were prepared on an accrual basis. The amounts for forecast and planned spending presented in other sections of the Departmental Plan were prepared on an expenditure basis. Amounts may therefore differ.

A more detailed consolidated future-oriented statement of operations and associated notes, including a reconciliation of the net cost of operations to the requested authorities, are available on the NRCan's website. clxii

Consolidated future oriented condensed statement of operations for the year ending March 31, 2024 (dollars)

Financial information	2022–23 forecast results	2023–24 planned results	Difference (2023–24 planned results minus 2022–23 forecast results)
Total expenses	2,923,639,826	4,748,250,415	1,824,610,589
Total net revenues	28,256,904	28,268,777	11,873
Net cost of operations before government funding and transfers	2,895,382,922	4,719,981,638	1,824,598,716

Total expenses are projected to increase by \$1,825 million, from \$2,924 million in 2022-23 to \$4,748 million in 2023-24, mainly explained by:

An increase of \$1,008 million in Globally Competitive Natural Resource Sectors mainly related to:

- An increase of \$1,173 million primarily in the Offshore Statutory accounts; offset by
- A decrease of \$158 million mainly related to the sunsetting of Investments in the Forest Industry Transformation Program, Forest Innovation Program, Southern Mountain Caribou, and Expanding Market Opportunities.

An increase of \$655 million in Innovative and Sustainable Natural Resources Development mainly due to:

- An increase of \$716.3 million mainly related to Greener Homes, Clean Fuels Fund, Smart Renewables and Electrification Pathways Program, and Zero Emission Vehicles Infrastructure Program; offset by
- A decrease of \$55 million related to the sunsetting of Emissions Reduction Fund.

An increase of \$153 million in Natural Resource Science and Risk Mitigation mainly related to:

- An increase of \$174.5 million mainly related to Growing Canada's Forests 2 Billion Trees, and Fighting and Managing Wildfires in a Changing Climate; offset by
- A decrease of \$40 million related to the sunsetting of the Mountain Pine Beetle Program.

Net revenues of \$28.3 million for 2023-24 are consistent with 2022-23.

The charts presenting the distribution of Natural Resources Canada's total forecast expenses for 2022-23 and planned expenses for 2023-24 by Core Responsibility on an accrual basis are available on the NRCan website. clxiii

Corporate information

Organizational profile

Appropriate minister: The Honourable Jonathan Wilkinson, P.C., M.P.

Institutional head: John Hannaford

Ministerial portfolio:

- Atomic Energy of Canada Limited; clxiv
- National Energy Board; clxv
- Canadian Nuclear Safety Commission; clxvi
- Canada-Newfoundland and Labrador Offshore Petroleum Board; clxvii
- Canada-Nova Scotia Offshore Petroleum Board; clxviii
- Northern Pipeline Agency; clxix and,
- Energy Supplies Allocation Board (inactive).

Enabling instrument(s):

- Department of Natural Resources Act, S.C. 1994, c. 41;clxx
- Forestry Act, R.S.C., 1985, c. F-30; clxxi
- Resources and Technical Surveys Act, R.S.C., 1985, c. R-7;clxxii
- Energy Efficiency Act, S.C. 1992, c. 36;clxxiii
- Extractive Sector Transparency Measure Act, S.C. 2014, s.376; clxxiv and,
- Explosives Act, R.S.C., 1985, c. E-17. clxxv

Year of incorporation / commencement: 1994

Raison d'être, mandate and role: who we are and what we do

Information on Natural Resources Canada raison d'être, mandate and role is available on the NRCan's website. clxxvi

Information on Natural Resources Canada mandate letter commitments is available in the Minister's mandate letter. clxxvii

Operating context

Information on the operating context is available on Natural Resources Canada's website. clxxviii

Reporting framework

Natural Resources Canada approved departmental results framework and program inventory for 2023–24 are as follows.



Changes to the approved reporting framework since 2022–23

Structure	2023-24	2022-23	Change	Reason for change
CORE RESPONSIBILITY	Natural Resource Science and Risk Mitigation	Natural Resource Science and Risk Mitigation	No change	Not applicable
PROGRAM	Canadian Geodetic Survey: Spatially Enabling Canada	Canadian Geodetic Survey: Spatially Enabling Canada	No change	Not applicable
PROGRAM	Geological Knowledge for Canada's Onshore and Offshore Land	Geological Knowledge for Canada's Onshore and Offshore Land	No change	Not applicable
PROGRAM	Core Geospatial Data	Core Geospatial Data	No change	Not applicable
PROGRAM	Canada-US International Boundary Treaty	Canada-US International Boundary Treaty	No change	Not applicable
PROGRAM	Canada Lands Survey System	Canada Lands Survey System	No change	Not applicable
PROGRAM	Geoscience for Sustainable Development of Natural Resources	Geoscience for Sustainable Development of Natural Resources	No change	Not applicable
PROGRAM	Pest Risk Management	Pest Risk Management	No change	Not applicable
PROGRAM	Forest Climate Change	Forest Climate Change	No change	Not applicable
PROGRAM	Climate Change Adaptation	Climate Change Adaptation	No change	Not applicable
PROGRAM	Explosives Safety and Security	Explosives Safety and Security	No change	Not applicable
PROGRAM	Geoscience to Keep Canada Safe	Geoscience to Keep Canada Safe	No change	Not applicable
PROGRAM	Wildfire Risk Management	Wildfire Risk Management	No change	Not applicable
PROGRAM	Polar Continental Shelf program	Polar Continental Shelf program	No change	Not applicable
CORE RESPONSIBILITY	Innovative and Sustainable Natural Resources Development	Innovative and Sustainable Natural Resources Development	No change	Not applicable
PROGRAM	Energy Innovation and Clean Technology (EICT)	Energy Innovation and Clean Technology	No change	Not applicable

	PROGRAM	Green Mining Innovation	Green Mining Innovation	No change	Not applicable
	PROGRAM	Fibre Solutions	Fibre Solutions	No change	Not applicable
	PROGRAM	Sustainable Forest Management	Sustainable Forest Management	No change	Not applicable
	PROGRAM	Cumulative Effects	Cumulative Effects	No change	Not applicable
	PROGRAM	Lower Carbon Transportation	Lower Carbon Transportation	No change	Not applicable
	PROGRAM	Electricity Resources	Electricity Resources	No change	Not applicable
	PROGRAM	Energy Efficiency	Energy Efficiency	No change	Not applicable
	PROGRAM	Energy and Climate Change Policy	Energy and Climate Change Policy	No change	Not applicable
	PROGRAM	Innovative Geospatial Solutions	Innovative Geospatial Solutions	No change	Not applicable
co	DRE RESPONSIBILITY	Globally Competitive Natural Resource Sectors	Globally Competitive Natural Resource Sectors	No change	Not applicable
	PROGRAM	Forest Sector Competitiveness	Forest Sector Competitiveness	No change	Not applicable
	PROGRAM	Provision of Federal Leadership in the Minerals and Metals Sector	Provision of Federal Leadership in the Minerals and Metals Sector	No change	Not applicable
	PROGRAM	Energy Safety and Security, and Petroleum Resources	Energy Safety and Security, and Petroleum Resources	No change	Not applicable
	PROGRAM	Not applicable	International Energy Engagement	Program ended	Note 1
	PROGRAM	Statutory Offshore Payments	Statutory Offshore Payments	No change	Not applicable
	PROGRAM	Indigenous Partnerships Office	Natural Resources Canada's Indigenous Partnerships Office – West	Title change	Note 2
	PROGRAM	Nòkwewashk	The Resource Partnerships Sector	Title change	Note 3
	PROGRAM	Youth Employment and Skills Strategy - Science and Technology Internship Program (Green Jobs)	Youth Employment and Skills Strategy - Science and Technology Internship Program (Green Jobs)	No change	Not applicable

Note 1: Program merged with the Energy and Climate Change Policy Program to better reflect the redistribution of roles and responsibilities of international activities at the departmental level.

The International Energy Engagement (IEE) program is smaller in scope and no longer warranting a standalone program.

Note 2: The program is broad and covers other areas than the West (British Columbia and Alberta)

Note 3: The Resource Partnerships Sector" was replaced with "Nokwewashk" to reflect merger of Indigenous Affairs and Reconciliation Sector (IARS) and Major Project Management Office Sector (MPMO).

Supporting information on the program inventory

Supporting information on planned expenditures, human resources, and results related to Natural Resources Canada's program inventory is available on GC InfoBase. claxix

Supplementary information tables

The following supplementary information tables are available on NRCan's website:clxxx

- ▶ Details on transfer payment programs
- ▶ Gender-based analysis plus
- ▶ Horizontal initiatives
- ▶ Up-front multi-year funding
- ▶ United Nations 2030 Agenda for Sustainable Development and the Sustainable Development Goals

Federal tax expenditures

Natural Resources Canada's Departmental Plan does not include information on tax expenditures.

Tax expenditures are the responsibility of the Minister of Finance. The Department of Finance Canada publishes cost estimates and projections for government-wide tax expenditures each year in the Report on Federal Tax Expenditures. This report provides detailed information on tax expenditures, including objectives, historical background and references to related federal spending programs, as well as evaluations, research papers and gender-based analysis plus.

Organizational contact information

Mailing address

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Canada

 ${\bf Email: NRCan. media_relations. RNCan@canada. ca}$

Website: http://www.nrcan.gc.ca/

Appendix: definitions

appropriation (crédit)

Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

budgetary expenditures (dépenses budgétaires)

Operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

core responsibility (responsabilité essentielle)

An enduring function or role performed by a department. The intentions of the department with respect to a core responsibility are reflected in one or more related departmental results that the department seeks to contribute to or influence.

Departmental Plan (plan ministériel)

A document that sets out a department's priorities, programs, expected results and associated resource requirements, covering a three-year period beginning with the year indicated in the title of the report. Departmental Plans are tabled in Parliament each spring.

departmental result (résultat ministériel)

A change that a department seeks to influence. A departmental result is often outside departments' immediate control, but it should be influenced by program-level outcomes.

departmental result indicator (indicateur de résultat ministériel)

A factor or variable that provides a valid and reliable means to measure or describe progress on a departmental result.

departmental results framework (cadre ministériel des résultats)

A framework that consists of the department's core responsibilities, departmental results and departmental result indicators.

Departmental Results Report (rapport sur les résultats ministériels)

A report on a department's actual performance in a fiscal year against its plans, priorities and expected results set out in its Departmental Plan for that year. Departmental Results Reports are usually tabled in Parliament each fall.

full-time equivalent (équivalent temps plein)

A measure of the extent to which an employee represents a full person-year charge against a departmental budget. Full-time equivalents are calculated as a ratio of assigned hours of work to scheduled hours of work. Scheduled hours of work are set out in collective agreements.

gender-based analysis plus (GBA Plus) (analyse comparative entre les sexes plus [ACS Plus])

An analytical tool used to support the development of responsive and inclusive policies, programs and other initiatives. GBA Plus is a process for understanding who is impacted by the issue or opportunity being addressed by the initiative; identifying how the initiative could be tailored to meet diverse needs of the people most impacted; and anticipating and mitigating any barriers to accessing or benefitting from the initiative. GBA Plus is an intersectional analysis that goes beyond biological (sex) and socio-cultural (gender) differences to consider other factors, such as age, disability, education, ethnicity, economic status, geography, language, race, religion, and sexual orientation.

government-wide priorities (priorités pangouvernementales)

For the purpose of the 2023–24 Departmental Plan, government-wide priorities are the high-level themes outlining the Government's agenda in the 2021 Speech from the Throne: building a healthier today and tomorrow; growing a more resilient economy; bolder climate action; fighter harder for safer communities; standing up for diversity and inclusion; moving faster on the path to reconciliation and fighting for a secure, just, and equitable world.

high impact innovation (innovation à impact élevé)

High impact innovation varies per organizational context. In some cases, it could mean trying something significantly new or different from the status quo. In other cases, it might mean making incremental improvements that relate to a high-spending area or addressing problems faced by a significant number of Canadians or public servants.

horizontal initiative (initiative horizontale)

An initiative in which two or more federal organizations are given funding to pursue a shared outcome, often linked to a government priority.

non-budgetary expenditures (dépenses non budgétaires)

Net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

performance (rendement)

What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve, and how well lessons learned have been identified.

plan (plan)

The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally, a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead up to the expected result.

planned spending (dépenses prévues)

For Departmental Plans and Departmental Results Reports, planned spending refers to those amounts presented in the Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their Departmental Plans and Departmental Results Reports.

program (programme)

Individual or groups of services, activities or combinations thereof that are managed together within a department and that focus on a specific set of outputs, outcomes or service levels.

program inventory (répertoire des programmes)

An inventory of a department's programs that describes how resources are organized to carry out the department's core responsibilities and achieve its planned results.

result (résultat)

An external consequence attributed, in part, to an organization, policy, program or initiative. Results are not within the control of a single organization, policy, program or initiative; instead, they are within the area of the organization's influence.

statutory expenditures (dépenses législatives)

Expenditures that Parliament has approved through legislation other than appropriation acts. The legislation sets out the purpose of the expenditures and the terms and conditions under which they may be made.

target (cible)

A measurable performance or success level that an organization, program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

voted expenditures (dépenses votées)

Expenditures that Parliament approves annually through an Appropriation Act. The vote wording becomes the governing conditions under which these expenditures may be made.

Endnotes

- ⁱ NRCan's Youth Council, https://www.nrcan.gc.ca/careers/natural-resources-canada-youth-council/24652
- ⁱⁱ United Nations Declaration on the Rights of Indigenous Peoples, https://laws-lois.justice.gc.ca/eng/acts/U-2.2/
- iii Regional Energy and Resource Tables, https://www.nrcan.gc.ca/climate-change/regional-energy-and-resource-tables/24356
- iv Smart Renewables and Electrification Pathways Program, https://www.nrcan.gc.ca/climate-change/green-infrastructure-programs/sreps/23566
- ^v Enabling Responsible Small Modular Reactor (SMR) Deployment Program, https://www.nrcan.gc.ca/our-natural-resources/energy-sources-distribution/nuclear-energy-uranium/canadas-small-nuclear-reactor-action-plan/small-modular-reactors-smrs-for-mining/22698
- vi Canada Green Buildings Strategy, https://www.rncanengagenrcan.ca/en/collections/canada-green-buildings-strategy
- vii EnerGuide, https://www.nrcan.gc.ca/energy-efficiency/energuide/12523
- viii Clean Energy for Rural and Remote Communities Program, https://www.nrcan.gc.ca/reducingdiesel
- ix Canada's Indo-Pacific Strategy, https://www.international.gc.ca/transparency-transparence/indo-pacific-indo-pacifique/index.aspx?lang=eng
- ^x Canada's Critical Minerals Strategy, https://www.canada.ca/en/campaign/critical-minerals-in-canada/canadian-critical-minerals-strategy.html
- xi Canada's National Adaptation Strategy,
- https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/national-adaptation-strategy.html
- xii National Risk Profile, https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/ntnl-rsk-prfl/index-en.aspx
- xiii Natural Climate Solutions Fund, https://www.canada.ca/en/campaign/natural-climate-solutions.html
- xiv Canada's Digital Ambition, https://www.canada.ca/en/government/system/digital-government/government-canada-digital-operations-strategic-plans/canada-digital-ambition.html
- ${\color{blue} ^{xv} Canadian \ Geodetic \ Survey, \ https://www.nrcan.gc.ca/maps-tools-and-publications/tools/geodetic-reference-systems/canadian-spatial-reference-system-csrs/9052}$
- xvi Geo Mapping for Minerals and Energy, https://www.nrcan.gc.ca/earth-sciences/earth-sciences-resources/geoscientific-research-canadas-north/18215
- xvii United Nations Convention on the Law of the Sea, https://www.canada.ca/en/environment-climate-change/corporate/international-affairs/partnerships-organizations/law-sea-united-nations-convention.html xviii Atlantic Ocean (2013), https://www.international.gc.ca/media/aff/news-
- communiques/2013/12/09a_bg1.aspx?lang=eng
- xix Arctic Ocean (2019), https://www.canada.ca/en/global-affairs/news/2019/05/canadas-arctic-ocean-continental-shelf-submission.html
- xx Open Science and Data Platform, https://osdp-psdo.canada.ca/dp/en
- xxi Impact Assessment Act, https://laws.justice.gc.ca/eng/acts/I-2.75/index.html
- xxii Geo.ca, https://geo.ca/home/index.html
- xxiii Canada Lands Survey System, https://www.nrcan.gc.ca/maps-tools-and-publications/maps/canada-lands-surveys/about-canada-lands/10855
- xxiv Spruce budworm, https://www.nrcan.gc.ca/our-natural-resources/forests/wildland-fires-insects-disturbances/top-forest-insects-and-diseases-canada/spruce-budworm/13383
- xxv Mountain pine beetle, https://www.nrcan.gc.ca/our-natural-resources/forests/wildland-fires-insects-disturbances/top-forest-insects-and-diseases-canada/mountain-pine-beetle/13381
- xxvi Emerald ash borer, https://www.nrcan.gc.ca/our-natural-resources/forests/wildland-fires-insects-disturbances/top-forest-insects-and-diseases-canada/emerald-ash-borer/13377
- xxvii Hemlock woolly adelgid, https://www.nrcan.gc.ca/simply-science/wrestling-wild-and-woolly-pest/24726
- xxviii Polar Continental Shelf Program, https://www.nrcan.gc.ca/science-and-data/science-and-research/arctic-science/research-support-arctic-logistics-and-field-equipment-for-across-canada/10003

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xxix The Canadian Critical Minerals Strategy, https://www.canada.ca/en/campaign/critical-minerals-in-canada/canadian-critical-minerals-strategy.html#a1
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https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/national-adaptation-strategy.html

https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/national-adaptation-strategy.html

xxx Targeted Geoscience Initiative, https://www.nrcan.gc.ca/earth-sciences/earth-sciences-resources/targeted-geoscience-initiative-tgi/10907

xxxi Explosives Regulation 2013, https://www.nrcan.gc.ca/explosives/19367

xxxii Earthquake Early Warning System, https://earthquakescanada.nrcan.gc.ca/eew-asp/system-en.php

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