

RECOMMENDATIONS FOR BUDGET 2023



FEATURING

- 1 Zero-Emissions Electricity**
- 2 Renovation Wave**
- 3 Land and Ocean Protection**
- 4 Sustainable Agriculture**
- 5 Environmental Justice**



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This document will be available, in English and French, at www.greenbudget.ca.

Department and Agency Acronyms

AAFC	Agriculture and Agri-Food Canada
CFIA	Canadian Food Inspection Agency
CIB	Canada Infrastructure Bank
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CMHC	Canada Mortgage and Housing Corporation
DFO	Fisheries and Oceans Canada
ECCC	Environment and Climate Change Canada
ESDC	Employment and Social Development Canada
FIN	Finance Canada
GAC	Global Affairs Canada

HC	Health Canada
INFC	Infrastructure Canada
ISC	Indigenous Services Canada
ISED	Innovation, Science & Economic Development Canada
NRCan	Natural Resources Canada
PC	Parks Canada
PCO	Privy Council Office
PHAC	Public Health Agency of Canada
StatCan	Statistics Canada
TC	Transport Canada

INTRODUCTION & EXECUTIVE SUMMARY

As the world continues to grapple with major crises, it is now critical to focus more attention on addressing the related climate and biodiversity crises, and shaping a world that is equitable, carbon-neutral and nature-positive, for current and future generations of Canadians and people worldwide.

Canada and the world face ever-worsening climate and biodiversity crises. We are already experiencing extreme heat, floods, fires, ecological disruption, dramatic loss of wildlife populations, and a rapidly warming Arctic, causing disproportionate environmental harms to low-income and vulnerable people. Science tells us that these and other impacts will intensify if climate change and ecosystem destruction remain unchecked.¹

The Green Budget Coalition (GBC), comprising 21 of Canada's leading environmental organizations, appreciated the major federal funding announcements for climate and nature progress in Budget 2022 and the Emissions Reduction Plan, and urges the government to continue to seize this opportunity to transform society to address the twin climate and biodiversity crises, create sustainable jobs and ensure enduring prosperity and well-being for all.

¹ See for example, the UN's International Panel on Climate Change 2021 report, "AR6 Climate Change 2021: The Physical Science Basis, Summary for Policy Makers", at https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf, and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) May 2019 report at <https://ipbes.net/global-assessment>

The Green Budget Coalition welcomed the federal government's multi-billion dollar investments in Budget 2022 that advanced the Coalition's recommendations, particularly for energy-efficient buildings, zero-emission vehicles, and nature-based climate solutions. However, without effective use of such existing funding and further investments, Canada will not hit our targets for 40-45% reductions below 2005 levels in GHG emissions and protecting 30% of Canada's land and water by 2030, nor contribute our fair share to global emission reductions and achieve full nature recovery by 2050.

The CBD COP15 in Montreal in December is a prime opportunity for Canada to demonstrate global and domestic leadership and accelerate action to protect biodiversity and reduce climate risks.



Photo: Yomex Owo

RECOMMENDATIONS FOR BUDGET 2023

Budget 2022 noted that \$125-140 billion needs to be invested in climate action per year by 2050.² A RBC report in October 2021 concluded that Canada needed to spend \$60 billion per year to cut emissions, but was only spending \$15 billion per year,³ of which just under half was from the federal government.

The Government of Canada must ensure its investments and actions meet or exceed the ambition being set by our global peers, including on adaptation. Such investments will be amply repaid, with environmental, economic, and health benefits.

Building on the Green Budget Coalition's expertise, this document provides a comprehensive package of timely budget and fiscal recommendations whose adoption would advance progress on climate, nature, and equity, while creating jobs and protecting individual and collective health.

The Green Budget Coalition is featuring five recommendations for Budget 2023:

-  **Advancing a zero-emissions electricity grid based on renewables** – Essential steps towards the major transformational investments required in the generation, transmission, and demand side of electricity, including remote Indigenous communities (\$18 billion plus \$3 billion in tax benefits over five years);
-  **Renovation wave: a plan for jobs and climate** – Upgrading the energy efficiency and comfort of Canada's residential building stock, including low-income households, Indigenous communities, and skills development for the retrofit economy (in partnership with the provinces: \$10-15 billion per year for ten years);
-  **Delivering on Canada's land and ocean protection commitments** – Integrating Indigenous-led conservation, permanent funding for protection and stewardship, ecological connectivity, and NGO collaboration (\$18 billion over eight years);
-  **Advancing sustainable agriculture** – Key recommendations to help producers and Canada be leaders in sustainable and innovative agriculture with a resilient and diversified food system (\$3.5 billion over five years); and
-  **Institutionalizing environmental justice** – Establishing an Office of Environmental Justice (\$130 million over five years) and committing an appropriate portion of benefits from climate and clean energy spending to disadvantaged communities.

For all of the areas addressed in this document, we emphasize the importance of effective implementation, monitoring, and evaluation to ensure successful outcomes from new and ongoing programs.

Canada must also strive to advance and embed climate, biodiversity and environmental

² Government of Canada "A Plan to Grow Our Economy and Make Life More Affordable", Chart 3.1 (2022). <https://budget.gc.ca/2022/pdf/budget-2022-en.pdf>

³ RBC, "The \$2 Trillion Transition: Canada's road to Net Zero" (2021). <https://thoughtleadership.rbc.com/the-2-trillion-transition/>



equity goals across government, using tools such as “green strings” (environmental, social, and financial conditions) on new funding transfers, climate and biodiversity lenses on spending and policy measures, and ensuring permanent funding for ongoing environmental governance functions. The United States has launched a Justice40 initiative to make it a goal to ensure 40% of investments in, or benefits from, specified programs such as climate, energy, housing and pollution prevention accrue to vulnerable, low-income and other disadvantaged communities.⁴

Many of the recommendations in this document affect the rights and authorities of Indigenous peoples, including First Nations, Inuit, and Metis, whose traditional territories and knowledge are integral to the achievement of Canada’s climate and conservation goals. These recommendations should be considered in the context of reconciliation, and

GBC Feature Recommendations – Alignment with Government Priorities

		Mitigation: Reducing GHG emissions	Adaptation & resilience	Halt & reverse biodiversity loss	Clean growth & job creation	Equity, health & well-being
	1 Zero-Emissions Electricity	✓	✓		✓	✓
	2 Renovation Wave	✓	✓		✓	✓
	3 Land & Ocean Protection		✓	✓	✓	✓
	4 Sustainable Agriculture	✓	✓	✓	✓	✓
	5 Institutionalizing Environmental Justice		✓			✓

pursued in a manner in keeping with the United Nations Declaration on the Rights of Indigenous People.

Implementing these Green Budget Coalition recommendations would lead to transformative progress in advancing enduring environmental, economic, and social prosperity for all peoples in Canada from coast to coast to coast.

⁴ See, for example, <https://www.whitehouse.gov/omb/briefing-room/2021/07/20/the-path-to-achieving-justice40/>, and <https://www.energy.gov/diversity/justice40-initiative>



Who We Are

The Green Budget Coalition (GBC), founded in 1999, brings together twenty-one leading Canadian environmental and conservation organizations (*logos at side*), which collectively have over one million Canadians as members, supporters, and volunteers.

Our Mission

The mission of the Green Budget Coalition is to present an analysis of the most pressing issues regarding environmental sustainability in Canada and to make a consolidated annual set of recommendations to the federal government regarding strategic fiscal and budgetary opportunities.

Our Vision

The Government of Canada contributes to securing and maintaining the environmental sustainability of Canada through appropriate investments in environmental programs, and through the adoption of appropriate policies related to taxation, pricing, and subsidies.

Objectives

- To bring together the collective expertise of leading Canadian organizations regarding the important environmental issues facing Canada;
- To prepare and promote prioritized recommendations annually to the federal government on policies, actions and programs whose implementation would advance environmental sustainability and which could be reflected in the federal budget; and
- To monitor federal budget decisions and spending estimates and to track Green Budget Coalition recommendations with a view to assessing the likely effect of budgetary and fiscal decisions on the environment and to evaluating the Green Budget Coalition's impact on fiscal policy and budgetary actions.

The Green Budget Coalition's Co-Chairs are Gauri Sreenivasan, Director of Policy and Campaigns, Nature Canada, and Theresa McClenaghan, Executive Director, Canadian Environmental Law Association.

The Green Budget Coalition sincerely thanks the Catherine Donnelly, Echo, Gosling, Ivey, McConnell, McLean, Metcalf, and Willow & Grace Foundations for their generous financial support. The Green Budget Coalition's efforts are funded by its members and these foundations.



FEATURE RECOMMENDATIONS



Photo: NOAA

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ADVANCING A ZERO- EMISSIONS ELECTRICITY GRID BASED ON RENEWABLES

The federal government's stated goal of achieving a zero-emissions electricity system across Canada by the year 2035 is a foundational climate solution that unlocks and facilitates emissions reductions in other key sectors in the broader economy in Canada. It is crucial to achieve Canada's climate goals, and the IEA and IPCC affirm⁵ that this goal is necessary for advanced economies like Canada to be in-line with contributing to the Paris Agreement's goal of 1.5°C.

Getting to zero-emissions electricity by 2035 under the proposed Clean Electricity Regulations will require significant investment in the generation, transmission and demand side of electricity. It will also require unprecedented collaboration

5 IEA, "Net Zero by 2050: A Roadmap for the Global Energy Sector" (May 2021). <https://www.iea.org/reports/net-zero-by-2050>

between all levels of government, including Indigenous governments, utilities and system operators. As many electricity investments require years to move from planning to commissioning, funding must be made available now, with clear signals for future federal support. Only with bold and strategic investments will we be able to successfully and equitably decarbonize the electricity sector and realize the benefits of clean electrification across Canada.

The untapped potential in distributed energy resources is significant - including on-site and community solar, energy storage, and demand response solutions. Distributed energy resources can help increase resiliency, manage the cost of electricity, reduce energy poverty, provide local jobs and economic development, and unlock new community capital from citizens eager to participate in climate action.



Photo: Zbynek Burival

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Low-income and vulnerable people—including remote and Indigenous communities—must have affordable and equitable energy access as Canada transitions to a clean electricity grid. Siting of renewable installations on traditional Indigenous territories, and reducing reliance on diesel in Indigenous and remote communities, requires special care and attention. By targeting renewable energy funds, there is significant opportunity to advance environmental equity while reducing emissions.

The federal government can play a specific and vital role in supporting clean electricity generation through the following investments and commitments in Budget 2023:

Total Recommended Investment: \$17.8 billion over five years, plus \$3.1 billion over five years for investment and personal tax credits

Electricity sector transformation:

1. **\$12 billion over five years** to support clean electricity infrastructure deployment. These funds will support investments in provincial electricity system improvements, interregional transmission, clean generation, energy storage and other infrastructure to enable electricity system decarbonization by 2035. [NRCan]
2. **\$4.8 billion over five years** for investment in clean electricity projects and programs targeted to benefit Indigenous nations, low-income, and vulnerable communities. This can include but not be limited to renewables, energy storage, and demand side management. These federal investments should take the form of grants, not loans, wherever possible. [NRCan]
3. **\$3 billion over five years for an investment tax credit** to support clean electricity including renewables, energy storage technologies, and zero-carbon hydrogen. This mechanism should be at least comparable to the investment tax credit provided for carbon capture projects. [FIN, NRCan]

Best practices in clean electricity governance, market design, planning and deployment, to be supported by the new Pan-Canadian Grid Council and related departments:

4. **\$50 million over five years** to enhance regional cooperation between provinces and support projects and analyses for inter-provincial transmission capacity. [NRCan]
5. **\$5 million** to fund a consultative process with provinces, territories, municipalities, utilities, industry, NGOs and interested community members focused on least-cost pathways toward 100% clean electricity by 2035. [NRCan]
6. **\$5 million over five years** to fund an independent centre of excellence in clean electricity governance to support best practices in utility regulation, electricity market design, and land-use planning with a view to accelerate the deployment of grid-scale and distributed renewable energy in support of affordable, reliable and 100% clean electricity by 2035. [NRCan]



Photo: Alex Motoc



Distributed energy projects:

7. **\$100 million over five years** to add a new stream to the NRCan Smart Renewables and Electrification Pathways program focusing on deployment and scale-up of community financed micro-grids based on heat pumps, distributed solar generation, community-scale storage and virtual net metering. The program would support partnerships between utilities, municipalities and community partners such as energy cooperatives and Indigenous-owned renewables. [NRCan]
8. **\$100 million over five years** for a federal tax credit for personal investment in community distributed generation projects to leverage community investment in renewable energy. [NRCan]
9. **\$50 million over five years** to procure electricity or Renewable Energy Certificates for signature government buildings from new projects by renewable energy co-operatives.⁶ [NRCan]

Renewables in remote communities:

10. **Allocate up to an additional \$800 million** to programs specifically aimed at building Indigenous leadership and partnerships for clean energy deployment in remote Indigenous communities. Funding programs should be flexible and support Indigenous-led projects that reduce diesel consumption in homes and buildings through deep energy retrofits, and through renewable heat and power generation.⁷ [NRCan, CIRNAC, ISC, INFC, ECCC]



Photo: Anton Dmitriev

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6 As part of its Federal Clean Electricity Initiative, the federal government has announced several initiatives to allow federal facilities to procure 100% of their electricity either directly from renewable sources or through the purchase of Renewable Energy Certificates (RECs). Public Services and Procurement Canada, “Requests for Proposal launched for purchase of clean electricity in Alberta.” <https://www.canada.ca/en/public-services-procurement/news/2021/01/requests-for-proposal-launched-for-purchase-of-clean-electricity-in-alberta.html>

7 Reducing diesel in remote communities across Canada is progressing thanks to significant progress attributed to federal programs like the now-completed \$220 million Clean Energy for Rural and Remote Communities (CERRC) program, the ongoing Northern Responsible Energy Approach for Community Heat and Electricity (REACHE) program, the more recent \$900 million Smart Renewables and Electrification Pathways (SREP) Program and the newly announced \$300 million Clean Energy in Indigenous, rural and remote communities program. Natural Resources Canada, “Clean Energy for Rural and Remote Communities Program.” <https://www.nrcan.gc.ca/reducingdiesel-Crown-Indigenous-Relations> and Northern Affairs Canada, “Northern REACHE program: guide for applicants.” <https://www.rcaanc-cirnac.gc.ca/eng/1508522950667/1594737605229> Natural Resources Canada, “Smart Renewables and Electrification Pathways Program.” <https://www.nrcan.gc.ca/climate-change-adapting-impacts-and-reducing-emissions/green-infrastructure-programs/smart-renewables-and-electrification-pathways-program/23566> Natural Resources Canada, “Government of Canada Investing \$300 Million in Clean Energy Projects in Indigenous, Rural and Remote Communities.” <https://www.canada.ca/en/natural-resources-canada/news/2022/04/government-of-canada-investing-300-million-in-clean-energy-projects-in-indigenous-rural-and-remote-communities.html> Despite this funding, the interest and project ideas to implement clean energy in remote communities outstrip the funding available, resulting in the above programs being oversubscribed. To meaningfully transition remote communities onto clean energy systems will take considerably more capital from the federal government, along with other enabling policies to support this transition.

CANADA'S RENOVATION WAVE: A PLAN FOR JOBS AND CLIMATE

Meeting Canada's climate targets requires eliminating carbon emissions from Canadian homes and buildings before mid-century. Achieving this entails phasing out on-site combustion of fossil fuels and connecting to clean energy, mainly electricity from wind, solar, and hydro. This fuel-switching needs to be combined with upgrades to insulation and ventilation systems to conserve energy, improve air quality, and protect occupants and housing infrastructure from extreme weather, air pollution and earthquakes. Additionally, low-income and vulnerable people are most affected by high energy prices and extreme weather impacts from climate change like heat waves. Dedicated, targeted no-cost programs for low-income people are crucial to ensure that all people benefit from retrofit programs.

To meet this target, Canada must develop a retrofit industry able to decarbonize 600,000 dwellings and more than 30 million square metres of commercial space each year to 2040. This will **require owners to invest approximately \$20 billion per year on top of normal maintenance costs, generating an additional \$48 billion in GDP each year, creating 200,000 long-lasting well-paid jobs across Canada, and reducing scope 1 and 2 emissions from buildings by nearly 90% by 2050.**

As we have seen during the pandemic, and following the floods, extreme heat events, and air pollution days of the last few summers, these investments are needed to improve the affordability of housing and to protect the health of people living in Canada.



Photo: Ashkan Forouzani

Background

- The Emission Reduction Plan, while acknowledging the scale of retrofit effort required, did not advance policies or funding sufficient to meet the goal. Policy conversations were delayed to 2023, when the Canada Green Building Strategy will be developed.
- Budget 2022 included some new additional funding for retrofits, but not yet the transformative scale required. New investments included: \$458.5 million for low-interest loans and grants for low-income housing retrofits, \$200 million for a Deep Retrofit Accelerator Initiative for large residential retrofit projects, and \$33.2 million for a market development pilot program.
- The Canada Green Homes Grant program, launched in May 2021, allocates \$2.6 billion over seven years to provide up to 700,000 grants of up to \$5,000 to help homeowners make energy-efficient improvements to their homes.
- Budget 2021 makes available \$4.4 billion over five years to help homeowners and landlords do home retrofits with interest-free loans of up to \$40,000. This program includes a dedicated funding stream for low-income homeowners and rental properties serving low-income renters, including cooperatives and not-for-profit housing.
- Budget 2020 included \$2 billion to finance commercial retrofits through the Canadian Infrastructure Bank.
- Launched in 2017, the National Housing Strategy included a co-investment fund providing \$4.7 billion over ten years to repair existing rental housing and develop new affordable housing. However, these renovations require only a 25% reduction in GHG emissions, setting a bar too low for our climate targets.

Photo: Josh Olalde





Recommended Investment:

The federal government, in partnership with the provinces, should invest \$10–15 billion per year for ten years to power a Canadian renovation wave, including:

- **\$10 billion per year** to fund deep retrofits for residential buildings, with programs covering 50-75% of the incremental cost of the upgrades needed (above normal replacement costs) to decarbonize and climate-proof buildings and homes [CMHC, NRCan, CIB, HC];
- **\$2 billion per year** to fund no-cost deep retrofits for low-income households⁸ of all types, including privately owned houses and rental units, publicly owned low-income housing, and a top-up for the renovation of social housing through the National Housing Strategy, including climate adaptation measures, and growing the targeted programs to low-income and vulnerable households to 40% of program spending over time⁹ [CMHC, HC];
- **\$540 million per year** for retrofits and energy efficiency top-ups for new housing projects in Indigenous communities¹⁰ [ISC, CMHC, CIB];
- **\$300 million per year** for skill development, capacity building and recruitment,¹¹ with funds earmarked to increase diversity in the retrofit economy [NRCan, ISED, HC];
- **\$100 million per year** to scale up the Greener Neighbourhood Program, which will deploy market development teams across the country to resolve systemic barriers to deep retrofits and facilitate large-scale roll out of new integrated retrofit offerings^{12,13} [NRCan, ISED]; and
- The federal government should also capitalize a loan guarantee program to reduce the risk to private financing of building retrofits.¹⁴ [CMHC, CIB, NRCan]



Photo: Jay Ee

⁸ Brendan Haley, “Low-income households should be a priority for federal energy efficiency funding.” *Policy Options* (2021). <https://policyoptions.irpp.org/magazines/february-2021/low-income-households-should-be-a-priority-for-federal-energy-efficiency-funding/>

⁹ Currently, renovations funded through the NHS must only reach a 25% reduction in carbon emissions, making it difficult for cash-strapped housing societies to justify spending more to achieve deeper emissions reductions and integrate climate adaptation measures.

¹⁰ Based on the costs estimate of Indigenous Clean Energy in their *Energy Foundations* report: <https://icenet.work/attachment?file=qrecQf4HdFgB4OHm6gR5yQ==>

¹¹ This mirrors the recommendations of the Canada Green Building Council and Efficiency Canada: see <https://electricenergyonline.com/article/energy/category/environment/18/834780/cagbc-tables-recommendations-for-canada-s-post-covid-19-economic-recovery.html> and <https://www.energycanada.org/wp-content/uploads/2020/09/EffCan-2020-Advocacy-federal-Pre-budget-submission.pdf>

¹² This echoes The Atmospheric Fund’s 2021 Budget recommendations (TAF). TAF, “2021 Federal Budget Recommendations.” <https://taf.ca/wp-content/uploads/2021/02/TAF-fedbudgetsubmission-2021-02-19.pdf>

¹³ In the Netherlands, the “Energiesprong” (energy leap) is a successful example of such a market development approach (<https://www.pembina.org/blog/gef-energiesprong>), which is now being incorporated in initiatives across Canada (<https://tinyurl.com/DeepRetrofitMap>), including Pembina’s Reframed Initiative. See also the upcoming paper by Efficiency Canada on mission-driven innovation.

¹⁴ Équiterre and the Pembina Institute, “Federal Policies for Low-Carbon Buildings: A blueprint to implement the PanCanadian Framework buildings strategy.” <https://www.pembina.org/pub/federal-buildings-blueprint>



Photo: Ben Allan

These are fiscally sound investments: energy retrofit programs more than pay for themselves through revenues generated by taxation, **returning \$2 to \$5 to public coffers per program dollar spent.**^{15,16} Beyond reducing household expenditures on energy and improving affordability (and thereby helping to reduce inflation), they can also generate savings in health care costs due to improvement in indoor air quality and thermal comfort.^{17,18} To this end, Health Canada should be involved in designing these programs to ensure integration of relevant health standards and considerations, such as climate adaptation, radon remediation, asbestos removal, air filtration, fire safety, and seismic upgrades and ensuring that these issues are not only addressed within the programs, but that the retrofits do not create new problems from air-tightness without planning to alleviate potential impacts such as radon levels and other indoor contaminants.

Private finance will need to be leveraged to accompany these programs; however, the rapid decarbonization of the residential sector is unlikely to occur without public investments at

15 Modeling by Dunskey and the Center for Spatial Economics in 2018 estimates the spending cost for the PCF+ scenario at \$154.7 billion over 13 years, and the resulting net additional provincial and federal tax revenue to be \$348.7 billion over that period: 2.3 times the program spending. See Table 15, Table 27, Table 28 of Dunskey Energy Consulting, “The economic impact of improved energy efficiency in Canada.” https://cleanenergycanada.org/wp-content/uploads/2018/04/TechnicalReport_EnergyEfficiency_20180403_FINAL.pdf

16 A 2011 study compared the costs of the program to the public revenues generated by Germany’s KfW development bank’s “energy efficiency renovation” program through taxes concluded that the program returned nearly four times more to the public coffers than it costs; more than five times if reduction in unemployment benefits were included. <https://www.pembina.org/reports/passive-house-report-2016.pdf> (page 124) based on KfW Bankengruppe, “Impact on Public Budgets of KfW Promotional Programmes in the Field of ‘Energy-Efficient Building and Rehabilitation.’” <https://www.buildup.eu/en/practices/publications/impact-public-budgets-kfw-promotional-programmes-field-energy-efficient>

17 A 2015 study found that retrofitting residential buildings in Toronto to comply with minimum building code regulations can save US\$2.3 billion/year in health care. M.S. Zuraimi, and Z. Tan, “Impact of residential building regulations on reducing indoor exposures to outdoor PM2.5 in Toronto.” *Building and Environment*, (2015). <https://doi.org/10.1016/j.buildenv.2015.03.010>

18 Federation of Canadian Municipalities and the Insurance Bureau of Canada, “Investing In Canada’s Future.” <https://fcm.ca/en/resources/investing-in-canadas-future>



this scale. There is limited capacity in the residential real estate market for private capital to take on a large share of the cost of the retrofits because there is already an affordability crisis severely limiting the capacity of households to service additional debts. A significant portion of private funding must be allocated to cover base costs (i.e., what owners need to spend to maintain their building in operating order), reducing the amount that can be allocated to retrofitting a building. In most cases, while retrofits result in lower energy bills, the savings are insufficient to service the debt and pay back the upfront capital investment. From an affordability perspective, it would be undesirable to shift the burden of servicing deep retrofit loans to tenants and provincial residential tenancy acts often limit an owner's capacity to pass such costs to tenants. Until the cost of deep retrofits can be decreased, and their value can be capitalized so as to attract private investment, transformation at scale requires government investment. The subsidy level suggested here would address these challenges by providing 50 to 75% of the incremental cost of fuel switching and envelope upgrades.

To deliver the renovation wave, these investments must be accompanied by strong policy measures, which need to be committed to in the Canada Green Building Strategy in 2023. This requires the federal government to partner with provinces to accelerate regulatory commitments towards a zero-carbon building sector, including: carbon intensity limits for new and existing buildings;¹⁹ energy performance standards requiring all heating equipment to have a coefficient of performance greater than 100% by 2030;²⁰ and, benchmarking, labeling, and public disclosure policies to inform real estate market assessment of performance, comfort, climate risks, and carbon risks.

Given the crucial role that provincial policies will play in meeting targets in the building sector, the federal government should make some of the funds contingent on provinces committing and implementing regulatory roadmaps for a zero-carbon building sector.

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Photo: Jeriden Villegas

19 Steven Nadel and Adam Hinge, "Mandatory Building Performance Standards: A Key Policy for Achieving Climate Goals." https://www.aceee.org/sites/default/files/pdfs/buildings_standards_6.22.2020_0.pdf

20 Energy and Mines Ministers' Conference, "Market Transformation Strategies for Energy-Using Equipment in the Building Sector." http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/emmc/pdf/Market-Transformation-Strategies_en.pdf

DELIVERING ON CANADA'S LAND AND OCEAN PROTECTION COMMITMENTS

Faced with the dual crises of climate change and biodiversity loss, Canadians expect their governments to act decisively and to invest to protect nature—our life support system.²¹

Budget 2021 committed over \$3.3 billion over five years to deliver on Canada's target of protecting 25% of land and ocean by 2025, and 30% by 2030. We are now well into this commitment with much work still to be done. As of December 2021, only 13.5% of land and 13.9% of ocean is in protected areas and other effective area-based conservation measures (OECMs).²² Experience over the past few years has shown

21 Canadians resoundingly support the government continuing to invest in measures that reach the target of protecting 30% of lands, rivers and lakes by 2030. Pollara strategic insights, "The International Boreal Conservation Campaign (IBCC) and the Indigenous Leadership Initiative June 2020 Public Opinion Poll." <https://static1.squarespace.com/static/5a2ef5702278e792c098cc02/t/5f03b73df638f1548b551994/1594079042021/IBCC.ILL.Poll+Report.pdf>

22 Environment and Climate Change Canada, "Canadian Protected and Conserved Areas Database." <https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/protected-conserved-areas-database.html>



Photo: Federico Respini

that progress in establishing and effectively managing protected areas is hampered by the short-term (5 year) nature of this funding. Protected areas and OECMs are, by definition, permanent designations and require long-term investment to effectively deliver nature conservation outcomes, and to provide economic, social and cultural benefits to communities.

Upfront certainty that the federal government will provide long-term support to Indigenous Nations and communities and other partners is needed to accelerate progress towards Canada's conservation commitments, and to ensure that these decisions support the development of diversified, conservation-focused economies in Indigenous and rural and remote communities.

Different approaches to conservation are required in different parts of Canada, but long-term support for partners is key throughout the country.²³ Almost 90% of land and all freshwater and ocean areas in Canada are held and managed by governments — federal, provincial, territorial and Indigenous – which means all levels of government need to contribute to this conservation effort. The 10% of Canada’s landbase that is privately held is concentrated in southern Canada where most Canadians live and where there are significant biodiversity declines. Recommendations for supporting Indigenous, public and private land protection are included below.

Economic benefits of Protected Areas

In 2017-18, the economic impact of visitor spending at Parks Canada sites alone included a \$2.6 billion contribution to Canada’s GDP, supported almost 28,000 full time jobs across the country, including in rural and remote communities, and generated \$449 million in tax revenues across multiple levels of government. International assessments have shown similar returns for marine protected areas.^{24,25}

In 2020, a global study of protected areas found that the benefits of protecting 30% of land and ocean by 2030 would outweigh the costs by a ratio of at least 5-to-1.²⁶

In addition to employment and tourism spinoff benefits, protected areas contribute significant environmental and societal benefits by avoiding deforestation, lowering risk of zoonotic diseases emerging via ecosystem fragmentation, protecting watershed health, and contributing to source water protection.²⁷

In order to produce these benefits, protected areas must be strongly protected, well managed, and adequately resourced in the long term.

23 Harvey Locke et al, “Three global conditions for biodiversity conservation and sustainable use: an implementation framework.” National Science Review (2019). <https://doi.org/10.1093/nsr/nwz136> ; World Commissions on Protected Areas, “Three Conditions.” <https://naturebeyond2020.com/3conditions/>

24 Luke Brander et al, “The benefits to people of expanding Marine Protected Areas.” *Institute for Environmental Studies (IVM), VU University Amsterdam & World Wildlife Fund (WWF)*. <https://fundingtheocean.org/reports/the-benefits-to-people-of-expanding-marine-protected-areas/>

25 P.E.T Edwards et al, “Investing in nature: Restoring coastal habitat, blue infrastructure and green job creation.” *Marine Policy* (2013). <https://doi.org/10.1016/j.marpol.2012.05.020>

26 Anthony Waldron et al, “Protecting 30% of the planet for nature: costs, benefits, and economic implications” https://www.conservation.cam.ac.uk/files/waldron_report_30_by_30_publish.pdf

27 McKinsey & Company, “Valuing nature conservation” (2020). <https://www.mckinsey.com/business-functions/sustainability/our-insights/valuing-nature-conservation>



Total Recommended Investment:
\$18.1 billion over eight years (to 2030–2031), followed by \$2.8 billion per year ongoing, plus additional funds, as determined by Indigenous organizations, to enable Indigenous peoples and governments to lead land and ocean protection, stewardship and resource management efforts on their territories.

1. Indigenous-led conservation

The Green Budget Coalition calls upon the Government of Canada to fully implement the United Nations Declaration on the Rights of Indigenous Peoples Act²⁸ that was adopted into Canadian law in June 2021. Article 26 of UNDRIP requires states to give legal recognition and protection to Indigenous peoples' "right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired."

Indigenous Protected Conservation Areas (IPCAs) and Indigenous Guardians programs are proven examples of Indigenous leadership in the protection and stewardship of lands, territories, and resources. IPCAs and Indigenous Guardian programs yield robust social, cultural and economic benefits²⁹ as well as environmental benefits that directly address urgent issues related to achieving biodiversity and climate targets that are a priority for the federal government and which benefit all Canadians.

The Green Budget Coalition commends the federal government for providing some funding to support IPCAs and Indigenous Guardians. However, current funding programs are inadequate and do not match the demand and the extent of resourcing Indigenous Nations require to advance their conservation priorities.³⁰ Issues with the current model include: most of the funding presently committed to IPCAs is focused on establishing new protected areas and conserved areas, with little remaining for long-term stewardship; the Indigenous Guardians program is still in "pilot" phase, with demand for Guardians programs far outstripping opportunities;³¹ and at least one federal department has shown little progress in the implementation of funds committed towards IPCAs in 2021. More fundamentally, it is increasingly clear that the current federal 'program funding' model does not adequately advance the Nation-to-Nation relationships required to further reconciliation and implement Indigenous rights. As highlighted in



Photo: Annie Spratt

28 "An Act respecting the United Nations Declaration on the Rights of Indigenous Peoples." S.C. 2021, c. 14. <https://laws-lois.justice.gc.ca/eng/acts/U-2.2/page-1.html#h-1301596>

29 Social Ventures Australia, "Analysis of the Current and Future Value of Indigenous Guardian Work in Canada's Northwest Territories" (2016). https://www.indigenousguardianstoolkit.ca/sites/default/files/Community%20Resource_Indigenous%20Leadership%20Initiative%20and%20Tides%20Canada_Analysis%20of%20Current%20and%20Future%20Value%20of%20Indigenous%20Guardian%20Work%20in%20Canada%27s%20Northwest%20Territories_0.pdf

30 Indigenous Leadership Initiative, "Indigenous-led Conservation: IPCAs & Guardians." <https://www.ilinationhood.ca/publications/backgrounderipcsguardians>

31 Social Ventures Australia, "Analysis of the Current and Future Value of Indigenous Guardian Work in Canada's Northwest Territories" (2016). https://www.indigenousguardianstoolkit.ca/sites/default/files/Community%20Resource_Indigenous%20Leadership%20Initiative%20and%20Tides%20Canada_Analysis%20of%20Current%20and%20Future%20Value%20of%20Indigenous%20Guardian%20Work%20in%20Canada%27s%20Northwest%20Territories_0.pdf

recommendation 4.12 in the Indigenous Circle of Experts' landmark *We Rise Together* report,³² “a more streamlined, predictable and flexible funding model is required.”

The Green Budget Coalition applauds the Government of Canada's commitment, in the Emissions Reduction Plan, to work in partnership with Indigenous peoples to create an agenda for climate action, including “Mechanisms to establish federal support for Indigenous-led climate strategies.” This must include the necessary resources and political direction to develop new, permanent and predictable, Nation-to-Nation sustainable financing arrangements that are co-designed with Indigenous peoples and implemented by Indigenous-led institutions.

As regional and national Indigenous organisations and governments identify their budgetary and policy recommendations, the Green Budget Coalition is committed to supporting and amplifying these recommendations as they relate to Indigenous-led conservation including IPCAs and Indigenous Guardians, and to updating our recommendations accordingly.



Photo: Melissa Bradley

³² Indigenous Circle of Experts, “We Rise Together: Achieving Pathway to Canada Target 1 through the creation of Indigenous Protected and Conserved Areas in the spirit and practice of reconciliation.” pg 51. https://static1.squarespace.com/static/57e007452e69cf9a7af0a033/t/5ab94aca6d2a7338ecb1d05e/1522092766605/PA234-ICE_Report_2018_Mar_22_web.pdf



2. Permanent funding for land, freshwater and ocean protection and stewardship

Permanent funding for land, freshwater and ocean protection is necessary if Canada is to reach our targets, effectively manage terrestrial and marine protected areas, and support Indigenous-led conservation and stewardship, as well as local conservation-focused economies. Indigenous Nations and communities and other partners are proposing significant areas for protection. These partners need certainty that long-term, adequate, and stable funding will be available from Crown governments to support ongoing management in order to make long-term decisions about land and ocean use.

Inadequate funding and the resultant understaffing has been repeatedly shown to be one of the primary causes of underperforming marine³³ and terrestrial³⁴ protected areas, and a major barrier to the establishment of new protected areas.

Federal departments responsible for protected areas are also hampered by the uncertainty and demands of short term, project-focused, funding cycles.

Recommended Investment:

\$1.4 billion per year in A-Base funding increasing to \$2.8 billion per year by 2030–31 to support long-term management and monitoring of terrestrial and marine protected areas.

- **\$750 million per year increasing to \$1.5 billion per year by 2030–31 for terrestrial protected areas.** [ECCC, PC]
- **\$650 million per year increasing to \$1.3 billion per year by 2030–31 for marine protected areas.** [DFO, ECCC, PC]



Photo: NOAA

33 David Gill et al, "Capacity shortfalls hinder the performance of marine protected areas globally." *Nature* 543, 665–669 (2017). <https://doi.org/10.1038/nature21708>

34 Jonas Geldmann et al, "A global analysis of management capacity and ecological outcomes in terrestrial protected areas." *Conserv Lett.* (2018). <https://doi.org/10.1111/conl.12434>

3. Ecological connectivity

Ecological connectivity is vitally important to ensuring effective protected area networks that conserve nature. It is also critical to tackle top threats to biodiversity: habitat loss, fragmentation, and climate change. Canada has previously committed to establish effective, connected and representative protected area networks under the Convention on Biological Diversity.³⁵ Connectivity is anticipated to be a key element of the protected areas target in the new Global Biodiversity Framework expected to be adopted at CBD COP 15 in Montreal in December 2022. Federal investment is needed to support nation-wide work by Crown and Indigenous governments, NGOs and private interests to ensure a well-connected network of protected areas across Canada.

The Government of Canada has committed to completing marine protected area (MPA) networks in five priority marine bioregions³⁶ though none have yet been completed. By ensuring ecological connectivity between protected areas, MPA networks amplify conservation benefits and more effectively address climate impacts by allowing species to move between sites while remaining protected. MPA network planning processes in BC's Northern Shelf Bioregion and the Scotian Shelf-Bay of Fundy region are furthest ahead but there remains considerable work to do and significant funding will be needed to support successful implementation. MPA network planning is an integrated and inclusive process that requires considerable investment to ensure effective stakeholder engagement, science support, and capacity building and engagement of partner organizations, including other federal agencies, Indigenous, provincial and territorial governments.

Recommended Investments:

- **\$500 million over three years to initiate a nation-wide Connectivity Fund** to conserve areas identified as important for ecological connectivity, create effective mitigation measures to improve connectivity of fragmented landscapes, and to advance connectivity conservation. [ECCC]
- **\$160 million over five years** to complete MPA network planning processes already underway and to start MPA network planning in four additional bioregions by 2030. [DFO, PC, ECCC]



Photo: NOAA

35 International commitments made to establish ecologically connected protected area systems include: The Convention on Biological Diversity, "Programme of Work." <https://www.cbd.int/protected/pow/learnmore/intro/#:~:text=The%20overall%20purpose%20of%20the,areas%20that%20collectively%2C%20inter%20alia> and The Convention on Biological Diversity, "Aichi Target 11." <https://www.cbd.int/aichi-targets/target/11>

36 The Northern Shelf Bioregion in British Columbia, the Scotian Shelf-Bay of Fundy, the Gulf of St. Lawrence, the Newfoundland and Labrador Shelves, and the Western Arctic Fisheries and Oceans Canada, "What is the network?" <https://www.dfo-mpo.gc.ca/oceans/networks-reseaux/info-eng.html>



4. Enabling collaborative approaches to conservation

Canada's high-value biodiversity areas are well-known, yet conflicting land-use interests often prevent timely establishment and recognition of new protected areas, OECMs and IPCAs. New bridges between governments, Indigenous communities, and industry are often required. Non-governmental organisation (NGO) partners can help to build these necessary bridges with innovative solutions that unlock durable conservation success.

Canada is fortunate to have a strong roster of experienced NGOs that collaborate with provinces, territories, Indigenous peoples, industry, corporations, private landowners and individuals. Support from the Government of Canada to activate NGO engagement at scale will accelerate efforts toward protecting and conserving 30% of land and ocean by 2030.

For public land, freshwater and ocean conservation, NGOs play a critical role in unlocking opportunities through awareness-raising, supporting Indigenous-led conservation, engaging Canadians in public policy decisions, providing technical expertise and capacity, and building bridges between partners based on extensive relationships.

The possibility of accelerating private large landscape conservation in Canada is also an exciting avenue for collaboration. There are privately held land parcels in Canada that are tens of thousands of hectares in size that are vital to biodiversity conservation and carbon sequestration. A Conservation Innovation Partnership Initiative with matched government and private financial contributions will expand opportunities to use market-based approaches in support of durable biodiversity conservation.

Recommended Investment:

\$600 million over eight years (to 2030–2031) to support NGOs in helping deliver Canada's conservation targets. [ECCC]



Photo: NOAA

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4

ADVANCING SUSTAINABLE AGRICULTURE

Agriculture and agri-food is a key economic sector in Canada, employing 2.1 million people in 2020 and generating \$139.3 billion in revenue (approximately 7.4%) of Canada's gross domestic product (GDP).³⁷ But it faces particular challenges from both climatic and non-climatic stressors. Producers across Canada are already experiencing the effects of climate change with more frequent and severe droughts, floods, and severe storms, and the sector faces global geopolitical challenges including market disruptions and high costs. Moreover, with the global demand for food expected to grow 60% by 2050,³⁸ ensuring Canadian agriculture is well positioned to meet these challenges in an environmentally sustainable fashion must be a collective priority.

³⁷ Agriculture and Agrifood Canada, "Overview of Canada's agriculture and agri-food sector." <https://agriculture.canada.ca/en/canadas-agriculture-sectors/overview-canadas-agriculture-and-agri-food-sector>

³⁸ José Graziano Da Silva, "United Nations - Feeding the World Sustainably." <https://www.un.org/en/chronicle/article/feeding-world-sustainably#:~:text=According%20to%20estimates%20compiled%20by,toll%20on%20our%20natural%20resources>.



Photo: Steven Weeks

Canada's larger farms and agri-businesses exert a massive influence on the landscape, yet they appear to under-participate in current Beneficial Management Practices (BMP) programming and, in some cases, may not even be eligible for some of the BMP-targeted programs. It is vital for the Sustainable Canadian Agricultural Partnership (SCAP) and other programming to engage large-scale farms. Of course, to encourage full-spectrum participation, government programming aimed at promoting BMPs will need to be fiscally sound and financially attractive for large farms and ranches and smaller operations alike.

Agricultural producers in Canada have been leaders in adopting cost-effective and readily available beneficial management practices that reduce emissions and provide additional benefits. Alternative farming practices represent a mitigation potential of 37.4 Mt of CO₂e/yr in 2030.³⁹ Practices including cover cropping, nutrient management, diverse crop rotation, and avoided conversion achieve mitigation, adaptation, and

³⁹ C. Ronnie Drever et al, "Natural Climate Solutions for Canada." *Science Advances* (2021). <https://doi.org/10.1126/sciadv.abd6034>

resilience through water retention, improved drainage, and erosion avoidance.⁴⁰ They also increase producers' revenues and are critical to meeting Canada's commitments to reduce emissions from methane and nitrogen fertilizers. Transitioning to more sustainable agricultural practices is increasingly important in maintaining Canadian producers' competitiveness amid changing consumer preferences and varying jurisdictional policy frameworks.⁴¹

While the uptake of regenerative agricultural practices is accelerating, there remain opportunities for increasing the scale of their adoption. Canadian producers need financial incentives and information on the potential return on investment (ROI) associated with new practices. These investments will help Canada's agriculture sector and producers successfully meet ambitious goals identified in recent federal announcements, including the Minister of Agriculture and Agri-Food Canada's mandate letter, the Guelph Statement, the Emissions Reduction Plan, and the developing Green Agriculture Plan. With just eight growing seasons to bring greenhouse gas emissions in line with levels agreed in the Paris Agreement, Budget 2023 and the new SCAP will be critical.

The Green Budget Coalition envisions a future in which Canada is viewed as a leader in sustainable and innovative agriculture with a resilient and diversified food system. To achieve this, collaboration at all levels of government and with the private sector is essential. Outlined below are key recommendations for investments that are aimed at helping producers diversify their income by advancing or incentivizing stewardship activities that produce enhanced environmental benefits.

**Total Recommended Investment:
\$3.46 billion over five years, followed by \$209 million per year, ongoing, as follows:**

A. National Land Use Strategy

Develop and implement a comprehensive National Land Use Strategy in collaboration with provinces, territories, and Indigenous peoples that would take an "everyone wins" approach to limit conversion of prime agricultural lands, grasslands, wetlands, and forested areas by engaging farmers on strategies that discourage loss of agricultural land and habitat while encouraging smart urban growth, sustainable agriculture, and carbon storage. This strategy should include an analysis and comprehensive review of land use change drivers.

\$25 million over three years, with option for renewal [AAFC, NRCan, ECCC]

40 United States Department of Agriculture, "Cover Crops - Keeping Soil in Place While Providing Other Benefits." https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ny/technical/?cid=nrcs144p2_027252

41 The February 2022 announcement of a \$1 billion Partnership for Climate-Smart Commodities labeling and funding program by the United States Department of Agriculture is case in point. U.S Department of Agriculture, "USDA to Invest \$1 Billion in Climate Smart Commodities, Expanding Markets, Strengthening Rural America." <https://www.usda.gov/media/press-releases/2022/02/07/usda-invest-1-billion-climate-smart-commodities-expanding-markets>



B. Agricultural Habitat Incentive Programs

Inappropriate land conversion continues to be a challenge, thus investments need to be made for agricultural habitat incentive programs:

Reinstate funding for a **National Perennial Forage Conversion Program**, similar to the former GreenCover Canada, but more targeted and aimed at actual field-scale conversion by enhancing cropland with interspersed productive cropland and perennial cover.

\$500 million over five years [AAFC]

Maximize the **economic and environmental return of marginal land** by implementing strategic investments and financial incentives for producers to convert marginal areas from annual crop production to natural features providing soil carbon storage and other ecosystem services. Precision/smart agriculture technology can be used as a tool to differentiate productive and profitable land from marginal land with little to no return on investment.

\$500 million over five years [AAFC]

Provide incentives for the **avoided conversion of native and tame grasslands**, which sequester carbon and provide biodiversity and other ecosystem services.

\$1 billion over five years [AAFC]

Pollinators provide a key service for native plant communities and global food production. Permanent stations are needed to monitor pollinator trends in relation to land use practices. This will help determine where funding is most needed (e.g., marginal areas on which to restore pollinator strips).

\$25 million over five years [AAFC, ECCC]

C. Data/Carbon Accounting

Improve systems for **measuring, reporting, verification of greenhouse gas (GHG) emissions** across agricultural landscapes to better inform the National Inventory Report, agricultural policy-making and programs, and decisions across agriculture and agri-food value chains. Data harmonization across government agencies (StatCan, ECCC, AAFC) is needed. This initiative should have the following three objectives over the next three years:

- Conduct a national scan of public and private data to identify opportunities and address gaps.
- Develop a centralized platform to build coherence across datasets.
- Invest in measurement tools, technologies, and reporting processes that can improve and streamline data collection.

\$50 million over three years, starting in 2023-24, **then \$2 million per year, ongoing** [AAFC, ECCC, StatCan]



Photo: Dan Meyers

D. Research to Quantify Economic, Environmental, and Social Benefits

Increase investments in research that quantifies the economic, environmental, and social benefits of agricultural practices to refine BMP information. This should include:

- Integrating monitoring and evaluation of agri-environmental indicators and return on investments from government programs (e.g., Agricultural Climate Solutions program), and share the findings from program evaluations with producers and policymakers.
- Continuing to expand and strengthen the Living Labs program network with a heightened emphasis on improving on-farm research and data collection to inform regional adoption and national reporting.
- Collaborating with universities and researchers, especially next generation researchers, to develop and deploy sustainable agriculture education and research programs.
- Improving the transparency of public data to identify and eliminate counter-productive incentives or subsidies for activities that directly or indirectly cause unnecessary environmental harm.

See also Aligning federal investments and policies, including subsidies, with Canada's Nature commitments, later in this document.

\$100 million over five years, starting in 2023-24, and **\$20 million per year, ongoing** [AAFC]



Photo: Elaine Casap



E. Tools, Tech Transfer, and Technical Assistance

Increase investment in Tools, Technology Transfer, and Technical Assistance for Producers to accelerate the adoption of BMPs that will improve productivity, generate new income streams, and improve on-farm climate resilience. Technical assistance for producers should take a flexible and regionally adapted systems approach where programs are tailored to local realities and can help build local capacity in nature-based climate solutions. This should include:

- Expanding extension programs (e.g., Environmental Farm Plan) to introduce practices, tools and technologies (e.g., HOLOs model) that assist and incentivize producers. Access to these resources should be complemented by efforts to incorporate feedback from producers.
- Improving and expanding access to resources, training and education for technical assistance providers on natural-climate solutions (NbS) adoption as Quebec announced in its Plan d'agriculture durable.
- Developing a training and certification program for technical assistance providers to better link producers to incentives for natural-climate solutions adoption and advise on the associated opportunities and risks (e.g., supply chain interventions).
- Enhancing farmer-to-farmer learning opportunities. Farmers learn about new practices and technologies in many ways, yet learning from other farmers often has the most powerful impact. Many farmer-to-farmer learning systems exist throughout Canada but they often rely on the volunteer work of champions of sustainable practices. Such programs need to be supported and expanded.
- Funding 1,000 new **extension service agents** to support sustainable practices, in particular soil health.

\$500 million over five years and then \$100 million per year, ongoing, to pay for one thousand new extension service agents to support agri environmental practices, in particular soil health. [AAFC]



Photo: Markus Spiske

F. Soil Health

Soils are important for their resilience, productivity, and carbon storage capacity. The protection and regeneration of soils has been identified as a key action in a suite of recent announcements including the Guelph Statement, On Farm Climate Action Fund, Agricultural Climate Solutions, the Emissions Reduction Plan, and the developing Green Agricultural Plan. This should include:

- Developing a regionally adapted **pan-Canadian Soil Strategy** that will help thousands more producers to access the information and financial resources needed to improve soil practices.
- Ensuring support is available for producers who want to test, adopt and measure other BMPs such as organic amendments, diverse crop rotations, conservation buffers, soil compaction prevention and integrated pest management.

\$6 million over three years to develop a Soil Health Strategy, to grow over time (**\$1 million in 2023-24, \$2 million in 2024-25, and \$3 million in 2025-26**). [AAFC]

G. Market-based Systems for Ecological Services

Canada is rich in ecological goods and services, which is advantageous in marketing sustainable products. Consumers are motivated to buy products that are perceived to provide improved environmental performance. However, no marketplace exists that provides security to Canadian companies to make such investments with an assured outcome. AAFC should allocate startup funding to facilitate the development of the on-farm-based EG&S market that would allow Canadians to make credible claims and investments to improve overall biodiversity.

\$25 million over three years [AAFC]

H. Updating Business Risk Management (BRM) programs to integrate climate risk management, environmental practices, and climate readiness.

The costs of BRM programs are increasing due to the significant risks climate change poses to farm operations. In contrast to similar programs elsewhere, business risk management programs in Canada do not yet compensate for measures taken by producers to mitigate these risks through adaptive practices such as environmental BMPs.⁴² While BRM programmes have been primarily aimed at income stabilization, they also offer a means to reward new practices that enhance medium and long-term climate resilience and produce positive agri-environmental outcomes.^{43,44} We recommend that all the



Photo: Gabriel Jimenez

42 The AGree E2 Coalition is a United States based group that explores how to improve crop insurance so that it better positions producers to reduce risks and adopt environmentally sound practices. The GBC has also drawn on recent Canadian research commissioned by Farmers for Climate Solutions. Aaron De Laporte et al, "Grounded in Resilience: adapting business risk management programs to reward climate-friendly agriculture." <https://farmersforclimatesolutions.ca/news-and-stories/grounded-in-resilience>

43 The Nature Conservancy. "Re-Think Soil Health." <https://www.nature.org/content/dam/tnc/nature/en/documents/rethink-soil-executive-summary.pdf>

44 Lara Bryant & Claire O'Connor, "Creating Incentives to Improve Soil Health Through the Federal Crop Insurance Program." Springer, Cham. Global Soil Security (2017). https://doi.org/10.1007/978-3-319-43394-3_37



changes to federally-funded BRM programs be additive and incentive-based. This should include:

- Creating a specialized Climate Risk Reduction Fund to provide voluntary incentives like premium discounts or enhanced payouts for producers that adopt BMPs.⁴⁵
\$435 million over five years, then \$87 million per year, ongoing [AAFC]⁴⁶
- Developing a program to pilot innovations in BRM design including encouraging adoption of specific BMPs.⁴⁷
\$10 million over 3 years [AAFC]
- Enhancing the transparency and accessibility of data on the effectiveness of BRM programs, including performance measures and reporting, working towards a quantification of the risk reduction benefits of BMP adoption and preventive measures.
\$5 million over five years [AAFC, StatCan]
- Collaborating with provinces to establish early warning systems (e.g., drought, floods) and related recommendations for regionally appropriate BMPs.
\$280 million over three years [AAFC]



Photo: Megan Thomas

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⁴⁵ Case studies from the USA and PEI illustrate some of the ways in which this can be done: The United States Department of Agriculture has been running a program since 2020 that offers a \$5 per acre reduction on crop insurance if producers adopt cover crops. Grower’s Edge, Midwestern BioAg and The Nature Conservancy recently launched a warranty-backed, sustainability focused, agronomic offer that provides technical and financial assistance and yield assurance to producers that implement a co-designed regenerative agriculture plan on their farms. The program is described in a recent report on financial innovations by Field to Market. PEI (2010) has tried a few approaches to reward producers that voluntarily adopt practices or environmental plans, including offering a 10% discount on crop insurance premiums to producers that adopted a nutrient management plan and discounts for producers participating in split-field nutrient management trials.

⁴⁶ The amount is based on a calculation intended to support a 50% premium reduction to provide \$10 per acre in reduced premium subsidies. With participation rate of 10% of producers on the roughly 87 million acres of Canadian farmland, it would cost \$87 million per year, \$435 million for 5 years. A 50% participation rate would cost \$435 million annually. Funds would not necessarily be used to support reduced premiums, but the calculation provides a sense of impact levels.

⁴⁷ Pilots could be linked to programs that already enrol producers in experimental design, such as the Living Labs. See also: Van der Pol, L. K., Tibbetts, C.A, and Hunter, D., “Removing Barriers and Creating Opportunities for Climate-Resilient Agriculture by Optimizing Federal Crop Insurance.” *Journal of Science Policy and Governance* (2021). <https://doi.org/10.38126/JSPG180213> This study presents the rationale for pilots and pathways for implementation.

INSTITUTION- ALIZING ENVIRONMENTAL JUSTICE

To advance environmental justice in Canada, the Green Budget Coalition recommends:

- Funding the establishment of a permanent, high-level Office of Environmental Justice; and
- Making a permanent, whole-of-government commitment to directing an appropriate proportion of the overall benefits from federal investments in climate and clean energy to disadvantaged communities, mirroring the U.S. Justice⁴⁰ initiative.

Racialized and disadvantaged communities bear a disproportionate burden from the effects of climate change and preventable environmental health hazards, such as pollution, toxic substances in consumer products, and environmental degradation. According to PHAC, significant health inequities exist among Canadians living on low incomes, Indigenous people, racial and sexual minorities, immigrants, and people living with physical or mental impairments.⁴⁸ While climate change will affect everyone, federal government reports repeatedly confirm that it will exacerbate these existing inequities.⁴⁹ Climate adaptation efforts must similarly account for the deeply unfair impacts of the climate crisis.

48 Public Health Agency of Canada/Pan-Canadian Public Health Network, "Key Health Inequalities in Canada: A National Portrait." https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/science-research/key-health-inequalities-canada-national-portrait-executive-summary/key_health_inequalities_full_report-eng.pdf

49 Peter Berry, Kaila-Lea Clarke, Manon D. Fleury, & Stephen Parker, "Chapter 7: Human Health" in "Canada in a Changing Climate: Sector Perspectives on Impacts and Adaptation." https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/earthsciences/pdf/assess/2014/pdf/Chapter7-Human-Health_Eng.pdf



Photo: Tingey Injury Law Firm

***Environmental justice** is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. **Fair treatment** means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies.*

Source: U.S. EPA Office of Environmental Justice ⁵⁰

Government programs, policies and regulations that address environmental health hazards rarely account for population-level inequities. Canada currently lacks coordinated capacity to ensure racialized and disadvantaged communities have the opportunity to enjoy the same level of environmental protection from environmental health hazards and access to environmental health benefits as other Canadians.

This could soon change. Bill S-5 would recognize for the first time in federal law the human right to a healthy environment and require consideration of “vulnerable populations” under the *Canadian Environmental Protection Act*. Bill C-266 would require the environment minister to develop a national strategy to assess, prevent and address environmental racism and to advance environmental justice. Both bills appear to be on track to pass into law.

A finalized federal National Adaptation Strategy is an opportunity to tackle the equity and fairness crises caused by climate change and to ensure that a high percentage of adaptation funding benefits racialized and disadvantaged communities.

To bolster and support implementation of environmental justice requirements, the Government of Canada needs to invest in institutional capacity, as well as research and policy development, to ensure that *all* people in Canada benefit from environmental protection.

⁵⁰ EPA, “Learn About Environmental Justice.” <https://www.epa.gov/environmentaljustice/learn-about-environmental-justice>

RECOMMENDATIONS FOR BUDGET 2023

A model has existed in the United States since the early 1990s in the Office of Environmental Justice, mandated to protect and promote environmental and public health in minority, low-income, tribal, and other vulnerable communities. A complementary Executive Order issued in 1994 established a high-level Interagency Working Group on Environmental Justice and required every federal agency to make achieving environmental justice part of its mission.

Under the Biden administration, a January 2021 Executive Order⁵¹ on “Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis,” directs government agencies to prioritize and advance environmental justice in multiple areas. The recent United States *Inflation Reduction Act* spending on climate action combined with the Justice40 initiative will mean that 40% of climate and clean investment spending in the upcoming years in the United States will benefit disadvantaged communities.

A Canadian Office of Environmental Justice should draw from the experience in the U.S. and provide the institutional capacity needed to:

- Improve understanding of the burden of preventable environmental health hazards faced by racialized and/or disadvantaged communities;
- Assess possible interventions;
- Develop and coordinate implementation of a national strategy on environmental racism and environmental justice (as required by Bill C-266);
- Champion efforts to integrate environmental health equity in all relevant government programs, policies, and activities, and coordinate a whole-of-government approach; and
- Identify where and what climate impacts will affect low-income communities and target adaptation efforts to those communities.

Benefits will manifest as reduced health inequities and a healthier population overall, health care savings and increased productivity.



Photo: Macu Ic

⁵¹ Presidential Actions, “Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.” <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/>



Photo: Thomas Ashlock

Justice40 for Canada

It is the experience of Green Budget Coalition members working on environmental justice that low-income and vulnerable people do not benefit from general program funding on climate action. Targeted programs that address the real circumstances of people living in poverty and disproportionately impacted by environmental health hazards are needed. The Green Budget Coalition recommends the Government of Canada make a permanent, whole-of-government commitment to direct an appropriate proportion of the overall benefits from federal investments in climate and clean energy to disadvantaged communities, mirroring the U.S. Justice40 initiative.⁵²

As a first step, and beginning in 2023, the Green Budget Coalition recommends that the new Office of Environmental Justice undertake an analysis to determine the appropriate target level of funding. Concurrently, all federal departments must work to identify the levels of benefits from relevant programs currently directed to disadvantaged communities, develop methods to calculate and report on enhancing benefits, and develop plans to engage with communities.

Recommended Investments [ECCC]:

- **\$25 million over two years** in start-up funds for a new Office of Environmental Justice, including the development of a national strategy on environmental racism and environmental justice, and **then \$15 million per year, ongoing**, in annual operating funding; and
- **\$7 million per year, ongoing**, (starting in 2023-24) to expand the Canadian Environmental Sustainability Indicators to support the data collection needed to enable environmental justice analysis for these indicators and an equity lens within the Federal Sustainable Development Strategy.

See also Chemicals Management Plan top-up, later in this document, regarding additional recommended investments to enable assessment of cumulative effects and risks to people in vulnerable situations.

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Photo: Jasper Garratt

⁵² See, for example, <https://www.whitehouse.gov/omb/briefing-room/2021/07/20/the-path-to-achieving-justice40/>, and <https://www.energy.gov/diversity/justice40-initiative>

COMPLEMENTARY RECOMMENDATIONS



Photo: Alan Rodriguez

INTEGRATING CLIMATE AND NATURE ACROSS GOVERNMENT SPENDING AND FUNDING DECISIONS

Climate Lens: implementing for Budget 2023 and incorporating biodiversity

Effectively addressing the interconnected dual crises of climate change and biodiversity loss calls for a whole-of-government approach to ensure all government regulation, policy, and spending are aligned with climate change and nature goals and commitments. Many government decisions have the potential to support or hinder climate change mitigation and influence climate adaptation and resilience. Similarly, government decisions may support or hinder Canada's commitment to halt and reverse biodiversity loss by 2030 and achieve full recovery by 2050.

In 2020, the Government of Canada committed to creating a “climate lens” to consider the climate impact of policies, plans, and programs.⁵³ The 2022 Emissions Reduction Plan indicated that development was underway on an “Integrated Climate Lens [that] will take into account climate, economic and inclusivity considerations to inform

⁵³ Government of Canada, “A Healthy Environment and a Healthy Economy” (2021). <https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/climate-plan-overview/healthy-environment-healthy-economy.html>

Photo: Felice Wolke



RECOMMENDATIONS FOR BUDGET 2023

policy development and government decision-making across federal departments”.⁵⁴ Additionally, during the 2021 federal election, a commitment was made to include biodiversity in the climate lens.

The Green Budget Coalition applauds these developments and recommends the following actions to maximize their potential benefits [PCO, FIN, ECCC]:

- Immediately begin implementing the Integrated Climate Lens to evaluate Budget 2023 proposals.

⁵⁴ Government of Canada, “2030 Emissions Reduction Plan” (2022). <https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/erp/Canada-2030-Emissions-Reduction-Plan-eng.pdf>

Photo: Malcolm Lightbody

- In Budget 2023, using results from the Climate Lens assessment, publish a summary of the Budget’s overall climate impacts.
- To support rigour, transparency, and accountability, ensure assessments are based on transparent methodologies, measurable indicators, and clear assessment criteria that are made publicly available. This should include assessing decisions against scenarios where global warming is limited to 1.5 degrees.
- Incorporate biodiversity into the Lens for Budget 2024, and apply it to programs and spending by the end of 2023.

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Green strings

“Green strings” are principles, criteria, and conditionalities that can be applied to federal spending to align with targets for emissions reductions and halting and reversing biodiversity loss. In addition to using the climate lens as an assessment tool (see *Climate Lens: implementing for Budget 2023 and incorporating biodiversity, earlier in this document*), green strings can help mainstream climate and nature priorities within specific programs and government departments, and leverage government’s spending power to ensure recipients of federal funding contribute to advancing environmental, social and economic objectives.

Recommendations:

The Green Budget Coalition recommends that the following “green strings” be applied to relevant funding programs across government, noting the particular importance for ISED, FIN, and NRCan. Other departments also have an important role in implementing green strings for programs that are designed to help deliver on, or could undermine, the federal government’s climate and nature-related goals (e.g., ECCC, AAFC, INFC).

1. Access to funding, across all streams and programs, should be conditional on:

- A commitment by provincial, territorial or municipal government recipients to develop a net-zero target and an emission reduction target consistent with or exceeding Canada’s 2030 goal;
- A commitment to work with provincial, territorial, Indigenous and federal counterparts to deliver on Canada’s goal of halting and reversing biodiversity loss by 2030, including by protecting at least 30% of land and ocean by 2030, and supporting Indigenous-led conservation.
- If not already established, a commitment by other recipients (including private sector recipients) to develop a net-zero target and an

emissions reduction target consistent with or exceeding Canada’s 2030 goal and to develop a plan to meet them based on a robust and agreed upon framework;

- To increase accountability at the corporate level, corporate net-zero commitments should set milestone targets in alignment with, or exceeding, the federal government’s targets. A robust framework must set limits on the percentage of milestones that can be met through offsets and include all emissions scopes.
- A commitment by recipients, particularly private sector recipients, to disclose climate and nature-related risks based on a robust and agreed upon framework;
 - Incentivizing the reporting of climate-related financial information based on the standards developed by the Task Force on Climate-Related Financial Disclosures (TCFD) and/or other recognized reporting frameworks would ensure companies are making resilience a key part of their plans while leading to strategic competitive advantage. As such, the federal government and provincial securities commissions should formally adopt TCFD disclosure requirements.⁵⁵
 - Similarly, encouraging up-take and application of the framework being developed by the Task Force on Nature-related Financial Disclosure (TNFD) will help to minimize the risk nature loss poses to business, while embracing the opportunity offered by nature-positive investments. The market-led, science-based TNFD framework will enable companies and financial institutions to integrate nature into decision-making.
- If an industrial emissions reduction project is dependent on technology, a commitment to deploying best in class technology.

⁵⁵ Task Force on Nature-related Financial Disclosures, “Developing and delivering a risk management and disclosure framework for organisations to report and act on evolving nature-related risks.” <https://tnfd.global>



Photo: NOAA

2. To provide transparency in how programs are managed and deliver on their intended outcomes:

- Details of funding agreements (e.g., nature and infrastructure agreements between federal and provincial/territorial governments) should be transparent, publicly available and include clear accountability mechanisms to ensure delivery of agreed-to actions and outcomes;
- Recipients should have an obligation to disclose information on actual investments made and measurable outcomes achieved in terms of GHG reductions, protection and/or restoration of nature, and job creation/retention (and other environmental benefits);
- For grants to private sector recipients, participation should come with penalties and corrective actions if conditions are not met (e.g., grants are converted into loans if the commitment to net-zero has not been developed within a reasonable time period);
- The federal government should make information publicly available on how fund recipients were selected; and
- The government should initiate timely and publicly available monitoring and evaluation of programs within the first year in order to assess that funds are reaching the right types of applicants and projects to contribute to net-zero and nature-related goals.

3. We also strongly encourage the federal government to consider the following criteria when establishing funding eligibility and selecting recipients:

- Establishing prioritization criteria to maximize outcomes:
 - Projects with largest absolute GHG reduction and GHG reduction potential per dollar invested; and
 - A critical assessment and prioritization of proven solutions to achieve near-term reductions to reach Canada’s 2030 target versus strategically investing in those emerging technologies that are most likely to enable Canada to reach our 2050 goal—or safe bets and wild cards as put forward by the Canadian Climate Institute.⁵⁶
- Ensuring alignment with robust just transition principles (*see Just Transition to a clean energy future for workers and communities, later in this document*) to minimize and address negative impacts to workers.
 - In particular, applicants to federal emissions reduction programs such as the Net Zero Accelerator should demonstrate that the project will lead to job creation or reduce job loss, or identify strategies to support impacted workers consistent with just transition.
- Ensuring that Indigenous authority is upheld, including through Free, Prior and Informed Consent, and Nation-to-Nation funding arrangements (e.g., through direct transfers to Indigenous recipients).
 - In particular, gaps for Indigenous engagement and inclusion have been identified in current federal climate and energy policies, programs, procurement, and infrastructure investment. Government clean energy funding programs (such as the Net-Zero Accelerator) should include provisions for Indigenous participation and leadership in order to

⁵⁶ Canadian Climate Institute, “Canada’s Net-Zero Future”. <https://climateinstitute.ca/reports/canadas-net-zero-future/>



advance reconciliation, as recommended by Indigenous Clean Energy.

- Funding for Indigenous-led land and ocean protection and stewardship should catalyze a paradigm shift towards permanent, predictable, sustainable, Nation-to-Nation financing, co-designed with Indigenous peoples and implemented by Indigenous-led institutions (*see Delivering on Canada's land and ocean protection commitments, earlier in this document*).

Considerations for specific programs

- Considerations per stream of the Net-Zero Accelerator and other targeted funding programs:
 - Automobile & aerospace: to accelerate transition to an emissions-free vehicle fleet, funding should be prioritized for zero-emission vehicles, rather than hybrids or plug-in hybrids.
 - Battery innovation: research has shown that the Net-Zero Accelerator may not be the best funding for battery supply chain development, including due to project eligibility thresholds and pace of funding availability. Canada will need to take additional measures to promote “clean” battery supply chains, and can look to the EU’s proposed battery regulation for inspiration.
 - If the fund supports fuel switching projects for industrial processes that require high temperature, it should only support projects that adopt renewable inputs such as green hydrogen.
 - Support should not be provided for projects and industries that are clearly incompatible with a net-zero trajectory. Support should not create or lock in brown infrastructure, such as new infrastructure that increases capacity for emissions-intensive fossil fuel production.
- Nature-related funding agreements with provinces and territories:
 - Bilateral Nature Agreements that provide

federal nature funding to provinces and territories should be transparent and require provinces and territories to commit to measurable and specific additional conservation outcomes on the ground that meet agreed-to standards and make a significant contribution to the 30% land protection targets, including Indigenous-led conservation initiatives.

- Mitigating risk to wildlife from infrastructure funding:
 - Infrastructure funding flowing to provinces and territories for linear infrastructure (e.g., highways, railways) should include a requirement to incorporate wildlife mitigation considerations and measures (e.g., underpasses, overpasses, fencing).

See also Aligning federal investments and policies, including subsidies, with Canada's Nature commitments, later in this document.

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Photo: NOAA

Phasing out fossil fuel subsidies & re-orienting public finance

It has been thirteen years since Canada first committed, under the G20, to phase out inefficient fossil fuel subsidies. Since then, the subsidy file has shifted substantially. International leaders and experts, such as the Executive Director of the International Energy Agency⁵⁷ and the Secretary-General of the UN,⁵⁸ have stressed that net-zero is not possible without removal of fossil fuel subsidies and an end to public finance for fossil fuels.

Despite advancing the timeline of its commitment to phase out fossil fuel subsidies from 2025 to 2023, Canada remains the slowest to phase out overall support for fossil fuels among G20 OECD countries.⁵⁹ Canada's progress on the G20 subsidy peer review with Argentina is significantly behind schedule and approaching the four-year mark; peer reviews from other countries have been completed in 12-18 months. The Department of Finance has not yet provided details on which tax measures are being assessed and ECCC has yet to provide an update on the results from the 2019 consultations on non-tax subsidies.⁶⁰

Some fossil fuel subsidies may appear to have environmental or social benefits, but these are far outweighed by the costs from distorting the market, prolonging fossil fuel production, worsening pollution, and opportunity cost in relation to a just transition. Transparency and accessible information around subsidies is critical.

Subsidy and public finance levels

In 2021, federal fossil fuel subsidies and supports

57 Fiona Harvey, "No new oil, gas or coal development if world is to reach net zero by 2050, says world energy body." <https://www.theguardian.com/environment/2021/may/18/no-new-investment-in-fossil-fuels-demands-top-energy-economist>

58 UN News, "End Fossil Fuel Subsidies, Bolster Funding for Renewable Energy Particularly in Africa, Secretary-General Tells Round Table on Clean Power Transition." <https://www.un.org/press/en/2021/sgsm20530.doc.htm>

59 Anna Geddes et al., "Doubling Back and Doubling Down: G20 scorecard on fossil fuel funding." <https://www.iisd.org/publications/g20-scorecard>

60 Office of the Auditor General of Canada, "2019 Spring Reports of the Commissioner of the Environment and Sustainable Development to the Parliament of Canada: Report 4—Non-Tax Subsidies for Fossil Fuels—Environment and Climate Change Canada." https://www.oag-bvg.gc.ca/internet/English/parl_cesd_201904_04_e_43310.html

totalled at least \$8.6 billion, including direct transfers and foregone tax revenues as well as public financing, as through Export Development Canada.⁶¹

In Budget 2022, the government introduced an investment tax credit for carbon capture, utilization, and storage (CCUS) while failing to advance promised tax credits for renewable technologies.⁶² The Green Budget Coalition considers that the costs of reducing emissions in oil and gas production and other high-emitting industries should be borne by industry in line with the polluter pays principle. This CCUS tax credit incentivizes fossil fuel production and thus slows the transition to non-polluting energies. When the investment tax credit is combined with other incentives for CCUS, it risks providing windfall earnings to these projects.

At COP26 in Glasgow, Canada joined a historic commitment to end international fossil fuel finance and redirect that support toward clean energy by the end of 2022.⁶³ Yet new research shows that Canada had the greatest public finance for fossil fuels from 2018-2020, providing an average of \$11 billion per year, and is poorly ranked in its progress on meeting the Glasgow commitment on public finance.⁶⁴ Thus, Canada needs to move quickly this year to deliver on this commitment by ending all international fossil fuel finance, alongside domestic public financing, and reorienting those funds towards clean technologies.

Potential for emerging subsidies

Lastly, as the government rolls out its national hydrogen strategy, decisions about Canada's future role in the emerging hydrogen market must be made. Oil and gas interests see investments in fossil

61 Julia Levin, "Buyer Beware: Fossil Fuel Subsidies and Carbon Capture Fairy Tales in Canada." <https://environmentaldefence.ca/wp-content/uploads/2022/03/Buyer-Beware-FFS-in-2021-March-2022.pdf>

62 Government of Canada, "Chapter 3: Clean Air and a Strong Economy." <https://budget.gc.ca/2022/report-rapport/chap3-en.html>

63 Kyle Bakx, "Canada to stop financing fossil fuel projects abroad by end of 2022." <https://www.cbc.ca/news/business/bakx-cop26-fossil-fuel-subsidies-1.6236636>

64 IISD, Oil Change International, Tearfun. "Turning Pledges Into Action: How Glasgow Statement signatories can meet their commitment to shift international public finance out of fossil fuels and into clean energy by the end of 2022." <https://www.iisd.org/system/files/2022-06/turning-glasgow-statement-into-action.pdf>



Photo: Zbynek Burival



fuel-derived hydrogen as a way to search for a new market for their products as the world transitions away from oil. Fossil fuel-based (including “blue”) hydrogen is not free of carbon emissions and relies on expensive carbon capture and storage (CCS) technology. Subsidies should be directed instead towards renewable (“green”) hydrogen. The urgency of the climate crisis and the need for rapid emissions reductions means new government investments must be focused on carbon-free energy systems. It is critical that newly announced funding measures such as the \$1.5 billion for the Low Carbon and Zero-Emissions Fuels Fund prioritise renewable hydrogen to remain competitive in global markets and avoid lock-in of emissions-producing assets.⁶⁵

Recommendations:

For nearly two decades, the Green Budget Coalition has been calling for fossil fuel subsidy reform, and this is the fifth consecutive year that we have been calling for timely action to phase out fossil fuel subsidies in line with Canada’s international commitments. The recommendations are reiterated here with renewed urgency given the timelines of the government’s commitments and the escalating climate crisis:

1. Commit to not introducing any new subsidies for fossil fuels. [FIN, NRCan, ISED, ECCC]
2. Phase out fossil fuel subsidies by 2023 with robust definitions:
 - a. Complete a transparent G20 peer review with Argentina, using the internationally agreed upon World Trade Organization (WTO) definition, including public finance elements, and robust criteria for “efficiency”, as outlined in a recent IISD and Equiterre brief.⁶⁶ [FIN, ECCC]
 - b. Publish the results of Canada’s long overdue self-review by fall 2022. [FIN, ECCC]
 - c. Act upon the self-review and peer-review results by 2023 to eliminate fossil fuel subsidies that do not meet the efficiency criteria. [FIN, ECCC]
 - d. Release clear, detailed information on amounts of all federal fossil fuel subsidies and supports (updated annually), based on the WTO definition. [FIN]
3. Redirect current subsidies and supports from fossil fuels to clean technologies such as investment tax credits and public finance

⁶⁵ For examples, see: Agora Energiewende, “Towards a climate-neutral Germany.” https://www.stiftung-klima.de/app/uploads/2020/10/KNDE_Executive-Summary_EN_WEB.pdf

⁶⁶ Émile Boisseau-Bouvier and Laura Cameron, “Identifying Inefficient Fossil Fuel Subsidies in Canada” (2022). <https://www.iisd.org/publications/brief/identifying-inefficient-fossil-fuel-subsidies-canada>



- for green technology including renewable hydrogen, batteries, and energy storage.
4. Re-orient public finance, particularly from Export Development Canada [FIN, GAC]:
 - a. End Export Development Canada's support for fossil fuels in the short term (including through the Canada Account) by implementing robust exclusionary policies that include indirect support;
 - b. Align EDC's entire portfolio with Canada's climate commitments and a 1.5°C degree scenario. Substantially improve EDC's target for reducing carbon-intensive investments and develop concrete plans for reducing these investments in order to support the transition to clean energy;
 - c. Adopt strict definitions of "limited and clearly defined exceptions" and "unabated" that ensure against fossil fuel lock-in, including for gas;
 - d. Increase transparency on transactions, conditions applied, and GHG emissions associated with investments; and
 - e. Work with the other Glasgow Statement

signatories to encourage other countries to join this initiative and to cement their joint commitments into international policy processes including at the major multilateral development banks, in the G7, G20, and the OECD. Collaborate with low- and middle-income signatories to ensure that Canada's implementation efforts respond to their transition needs.

See also Advancing a zero-emissions electricity grid based on renewables, earlier in this document.

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Aligning federal investments and policies, including subsidies, with Canada's Nature commitments

Environmentally harmful subsidies (EHS) are working against nature positive outcomes in Canada and are a systemic barrier to achieving the federal government's nature commitments to halt and reverse biodiversity loss by 2030, including by protecting at least 30% of Canada's land and ocean.

Furthermore, there is a significant financing gap to support nature. In 2020, a landmark international report, *Financing Nature: Closing the Global Biodiversity Financing Gap*,⁶⁷ found that governments are currently spending two to four times more per year on environmentally harmful subsidies to agriculture, forestry and fisheries than they are spending on biodiversity conservation. Adding to the challenge is a big biodiversity financing gap, with the report identifying a global funding gap of approximately \$800 billion per year to achieve biodiversity conservation goals. This financing gap, coupled with perverse conservation signals, points to the need to identify high priority EHS in Canada.

Identifying federal policies and financial flows that conflict with Canada's nature goals, and reforming or redirecting these to support nature-positive actions, would not only help advance conservation action, it could also help fill the gap in long-term funding needed to deliver on Canada's nature commitments (see *Delivering on Canada's land and ocean protection commitments*, earlier in this document). This work would build on existing federal efforts to remove or re-direct climate-unfriendly subsidies, and also help advance Canada's climate-related commitments.

Example: Canada's GHG Accounting System

Canada's primary boreal and temperate forests have globally significant climate and biodiversity values. Yet scientists and environmental groups have highlighted that Canada's current greenhouse gas (GHG) accounting system fails both to fully account for, and put a price on, GHG emissions associated with industrial logging of these ecosystems,⁶⁸ effectively subsidising forestry practices that harm nature and the climate. Reforming this accounting framework to incent climate-friendlier logging practices like avoiding primary forests and longer harvest rotations would support globally significant nature and climate-related outcomes, and help Canada deliver on its nature and climate commitments.

Existing federal commitments

Canada has already committed to better align its policies and investments with the goal of halting and reversing biodiversity loss:

- **The G7 2030 Nature Compact (June 2021)** recognizes “the harmful effect of some subsidies on the environment and the need to reform policies with recognized negative impacts on nature” and commits “to lead by example by reviewing relevant domestic policies as soon as

67 Andrew Deutz et al, “Financing Nature: Closing the Global Biodiversity Financing Gap.” <https://www.paulsoninstitute.org/conservation/financing-nature-report/>

68 Jennifer Skene and Michael Polanyi, “Missing the Forest: How Carbon Loopholes for Logging Hinder Canada's Climate Leadership” (2020). <https://naturecanada.ca/missingtheforestreport/> Dr. William Anderson et al, “Letter from Scientists to Prime Minister Justin Trudeau Regarding the Protection of Canada's Primary Forests.” https://www.nrdc.org/sites/default/files/media-uploads/primary_forest_scientist_letter-final.pdf



Photo: Eelco Bohlmeijer

biodiversity goals, reforming harmful subsidies, and scaling up nature-positive incentives.

- Target 3 of the Strategic Plan for Biodiversity 2011-2020 committed governments to ensure that “By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied...”

Recommendations:

- In 2023, initiate a whole-of-government review to identify expenditures, including subsidies, and fiscal policies that undermine the federal government’s nature commitments. By 2024, remove, reform or repurpose these expenditures/policies to align with and incent progress towards Canada’s nature and climate commitments. [FIN]
- Invest **\$3 million over two years** to improve the accuracy of measurement, accounting and reporting of GHG emissions from the forestry sector (e.g., improved on-the-ground emissions monitoring), and to move towards bringing forestry emissions into Canada’s carbon pricing framework by requiring corporate level reporting of forest sector emissions. [ECCC, NRCan/CFS]

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possible... and will take action as appropriate to develop replacements that are nature positive.”

- **The Leaders’ Pledge for Nature (September 2020)** commits signatories to “*eliminate or repurpose subsidies and other incentives that are harmful to nature, biodiversity and climate while increasing significantly the incentives with positive or neutral impact for biodiversity across all productive sectors.*”
- **UN Convention on Biological Diversity (CBD):**
 - The draft Global Biodiversity Framework, currently under negotiation, includes integrating biodiversity into policies across governments, aligning financial flows with



Eliminate federal funding for Small Modular Reactors

The Green Budget Coalition recommends that federal funding for Small Modular Reactors (SMRs) be eliminated in Budget 2023. We are concerned that despite massive public subsidies in nuclear power, SMRs remain an unproven, far more costly form of energy production than renewables, while posing risks of severe accidents and nuclear weapons proliferation.⁶⁹

There is little evidence that SMRs are the breakthrough technology that will resurrect Canada's nuclear industry, which has been in a steady decline since 1996,⁷⁰ nor feasibly enable Canada to meet its climate targets. No SMR in Canada has commenced licensing and pilot projects are years away from completion. This, coupled with the sector's trend of construction delays and cost overruns, make SMR projects ineligible to contributing to meeting the most urgent of climate targets set out by the Intergovernmental Panel on Climate Change.

There is strong opposition to SMRs from civil society groups and some First Nations including Kebaowek First Nation who have expressed opposition to SMRs in Algonquin territory, which is home to the only SMR currently undergoing federal review.⁷¹

To date, there has been no public accounting of the lifetime costs and risks accompanying SMRs' construction, operation, maintenance, decommissioning and eventual waste oversight. Without this transparent demonstration, SMR projects should not be eligible for any net-zero tax credit or net-zero initiative funding. In addition to direct subsidies, SMR proponents seek reduced requirements for environmental assessment, emergency planning, nuclear security, accident liability, and decommissioning, thereby reducing

opportunities for public participation in decision-making.⁷²

Recommendation:

Eliminate federal funding for SMRs, across all departments and funding streams, and reallocate funds for SMRs into cost-effective, socially responsible, renewable energy solutions that are scalable now. [NRCan]

See also *Advancing a zero-emissions electricity grid based on renewables*, earlier in this document.

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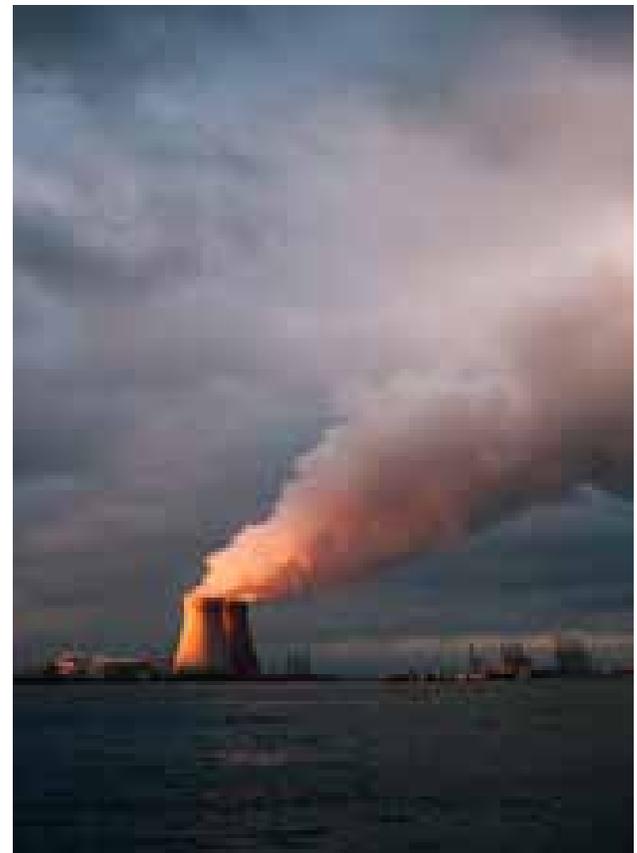


Photo: Mick Truys

69 M.V. Ramana, Zia Mian, "One size doesn't fit all: Social priorities and technical conflicts for small modular reactors." *Energy Research & Social Science* (2014). <https://doi.org/10.1016/j.erss.2014.04.015>

70 Ahmad, Ali and Mariana Budjeryn, "The World Nuclear Industry Status Report 2021" (September 2021). <https://www.worldnuclearreport.org/IMG/pdf/wnsr2021-lr.pdf>, p 17 and 43.

71 Canadian Environmental Law Association, "Statement on Small Modular Reactors." <https://cela.ca/statement-on-small-modular-reactors/>; Haymond et al. "Decolonizing energy and the nuclear narrative of small modular reactors." *Policy Options* (2022). <https://policyoptions.irpp.org/magazines/february-2022/decolonizing-energy-and-the-nuclear-narrative-of-small-modular-reactors/>

72 For a discussion on how the removal of SMRs from impact assessment may harm Canada's commitment to sustainable development, please see: Kerrie Blaise, Shawn-Patrick Stensil, "Small Modular Reactors in Canada: Eroding Public Oversight in Canada's Transition to Sustainable Development." *Nuclear Non-Proliferation in International Law - Volume V* (2020).

CLIMATE: EMISSIONS REDUCTIONS

Photo: Ivana Cajina



Introduction

Climate change remains the critical environmental and equity crisis of our time.

In the last few years, Canada has made increasingly-ambitious global commitments and important budget and policy actions on climate mitigation, leading to the suite of actions included in the 2022 emissions reduction plan (ERP). Budget 2022 and the ERP signalled a turning point for climate action by presenting clearer plans to meet Canada's emission reduction targets. However, the quantity and nature of funding solutions still fall short of experts' recommendations to effectively face the climate crisis and reach the Paris Agreement goals. While RBC and the IPCC estimate that around 2.5% of GDP must be invested annually,⁷³ Canadian federal climate mitigation spending for the year 2022-2023 will account for just 0.28% of GDP.⁷⁴ In

⁷³ RBC, "The Two Trillion Dollar Transition: Canada's Road to Net Zero" (2020). <https://royal-bank-of-canada-2124.docs.contently.com/v/the-2-trillion-transition-canadas-road-to-net-zero-pdf> IPCC "Special Report: Global Warming of 1.5°C Summary for Policymakers" (2019). <https://www.ipcc.ch/sr15/chapter/spm/>

⁷⁴ Spending source calculated by adding end of chapter yearly table values from relevant sections of Budget 2022, Budget 2021 and Budget 2019. Also added yearly spending assumptions informed by <https://www.pbo-dpb.gc.ca/en/blog/news/BLOG-2021-015--canada-infrastructure->



addition, while the recent effort to meet the current 2030 GHG reduction target of 40-45% below 2005 levels is welcome, many consider that this target remains largely insufficient for the country to do its fair share of the global effort to limit global warming to below 1.5°C, calling for actions that lead to 60% emissions reductions below 2005 by 2030 domestically, and more action internationally.⁷⁵

Effective action requires actions on all fronts by all orders of government (federal, provincial, territorial, Indigenous and municipal), industry, businesses, labour, civil society, communities, and individuals. At the same time, the federal government has a

critical role to play, particularly a leadership role in investments and policy to drive emission reductions, as well as to create policy certainty and draw in private action.

This document outlines strategically chosen fiscal and budget actions that the Green Budget Coalition sees as the best fiscal and spending options to make further progress over the coming years, providing climate, economic, equity, human health, affordability and quality of life benefits.

Budget 2023 must further reduce emissions and continue the important work of building an equitable, carbon-neutral, nature-positive world.

For the Green Budget Coalition's feature recommendations for climate action, please see earlier in this document for:

- *Advancing a zero-emissions electricity grid based on renewables; and*
- *Canada's renovation wave: a plan for jobs and climate.*

bank--banque-infrastructure-canada. Used 2021 Q4 seasonally adjusted, current price GDP from <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610010401&pickMembers%5B0%5D=2.2&pickMembers%5B1%5D=3.1&cubeTimeFrame.startMonth=01&cubeTimeFrame.startYear=2021&cubeTimeFrame.endMonth=10&cubeTimeFrame.endYear=2021&referencePeriods=20210101%2C20211001>. Divided sum of 2022-2023 spending by this figure to obtain percentage.
 75 Christian Holz, "Deriving a Canadian Greenhouse Gas reduction target in line with the Paris Agreement's 1.5°C goal and the findings of the IPCC Special Report on 1.5°C". <https://climateactionnetwork.ca/wp-content/uploads/2019/12/CAN-Rac-Fair-Share-%E2%80%94-Methodology-Background.pdf>



Photo: Mika Baumeister

Financing & Economy–Wide Measures

Establishing a Canadian centre for decision– useful climate information

It has been estimated that the total annual capital required to reach net-zero by 2050 in Canada is in the order of \$125 to \$140 billion, while current annual investment is only between \$15 and \$25 billion.⁷⁶ Funding from the private sector is vital to bridge this gap—thus the need for sustainable finance.

In 2019, Canada’s Expert Panel on Sustainable Finance released its final report, which included 15 recommendations intended to “bring sustainable finance into the mainstream.” The recommendations were structured around three pillars, including “foundations for market scale” and “financial products and markets for sustainable growth.”⁷⁷ Since the release of this report, the Government of Canada has made commitments to push forward sustainable finance with a focus on areas including federal green bond issuance and climate-related financial disclosures.⁷⁸

One of the Expert Panel’s recommendations was the establishment of a “Canadian Centre for Climate Information and Analytics” (C3IA) as an authoritative source of climate information and decision analysis.⁷⁹ Increased access to climate data, while not in itself sufficient to leverage the private capital needed for Canada to reach net-zero by 2050, will support broader and more transformative measures including the above-noted climate-related financial disclosures. It will be especially effective when used to support transition plans for organizations in the public and private sectors. It has been noted that “data issues are frequently raised in discussions regarding

impediments to allocating capital to sustainable finance solutions.”⁸⁰ The Expert Panel noted the potential to build on existing initiatives such as the Canadian Centre for Climate Services (CCCS) and the Canadian Centre for Energy Information, with additional dimensions including interoperability with other data and tools for adaptation of scientific information into financial and economic analysis that is “decision-useful.”⁸¹ It also noted that “the intersection between data and analysis is the focus of the proposed... C3IA.”^{82,83}

Unfortunately, as of yet, insufficient progress has been made on the establishment of the C3IA. In late 2021, the Institute for Sustainable Finance (ISF) measured progress on the Expert Panel recommendations, finding that the recommendation to establish the C3IA was one of three on which the least progress had been made.⁸⁴

In the 2030 Emissions Reduction Plan, the Government committed to “develop a climate data strategy to ensure that the private sector and communities have access to data to inform decisions on planning...”⁸⁵ As part of this strategy, the Government should make a funding commitment to establish a Canadian centre for decision-useful climate information, similar to the C3IA, in consultation with the Sustainable Finance Action Council sub-committee that has been established to

76 Government of Canada, “A Plan to Grow Our Economy and Make Life More Affordable” (2022). <https://budget.gc.ca/2022/home-accueil-en.html>

77 Government of Canada, “Final Report of the Expert Panel on Sustainable Finance” (2019). <https://www.canada.ca/en/environment-climate-change/services/climate-change/expert-panel-sustainable-finance.html>

78 Environment and Climate Change Canada, “2030 Emissions Reduction Plan: Canada’s Next Steps for Clean Air and a Strong Economy” (2022). <https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/climate-plan-overview/emissions-reduction-2030.html>

79 Government of Canada, “Final Report of the Expert Panel on Sustainable Finance” (2019). <https://www.canada.ca/en/environment-climate-change/services/climate-change/expert-panel-sustainable-finance.html>

80 Sean Cleary and Andrew Hakes, “Changing Gears: Sustainable Finance Progress in Canada” (2021). <https://smith.queensu.ca/centres/isf/news/sustainable-finance-progress.php>

81 The Expert Panel noted that “tools to translate” existing climate change data “into tangible impacts to a business, city or portfolio are virtually non-existent.”

Government of Canada, “Final Report of the Expert Panel on Sustainable Finance” (2019). <https://www.canada.ca/en/environment-climate-change/services/climate-change/expert-panel-sustainable-finance.html>

82 Ibid.

83 It has also been noted that a centre similar to the C3IA could examine the intersections between climate, economic growth and social inclusion.

84 Sean Cleary and Andrew Hakes, “Changing Gears: Sustainable Finance Progress in Canada” (2021). <https://smith.queensu.ca/centres/isf/news/sustainable-finance-progress.php>

85 Environment and Climate Change Canada, “2030 Emissions Reduction Plan: Canada’s Next Steps for Clean Air and a Strong Economy” (2022). <https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/climate-plan-overview/emissions-reduction-2030.html>



Photo: NOAA



examine the issue.⁸⁶ Engagement with Indigenous communities and integration of Indigenous knowledge should be part of this initiative.

Recommended Investment:
\$15 million over three years for the establishment of a Canadian centre for decision-useful climate information. [ECCC, StatCan]

See also Supporting evidence-based decision making: improving environmental science and data, later in this document.

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⁸⁶ Sean Cleary and Andrew Hakes, “Changing Gears: Sustainable Finance Progress in Canada” (2021). <https://smith.queensu.ca/centres/isf/news/sustainable-finance-progress.php>

Canada's carbon pricing needs greater certainty to unlock decarbonization investments

As the carbon price rises to 2030, it will drive greater emissions reductions, but the risk of future price changes and credit market oversupply undermines the effectiveness of this price signal.⁸⁷ This is significant, because the financial viability of many decarbonization projects depends on a certain and stable carbon price, and any uncertainty has a secondary effect of driving up the cost of capital for project developers, as investors and lenders charge a premium for this revenue risk. This risk is one factor that will lead to actual emission reductions being less than otherwise predicted in Canada's Emissions Reduction Plan (also see Canadian Climate Institute

87 As Canada executes on its net-zero commitment, the federal Output Based Pricing System (OBPS) and Alberta Technology Innovation and Emission Reduction (TIER) regulation stringencies need to tighten by 4% per year to prevent credit market oversupply and significant credit price drops.

independent modelling of that plan⁸⁸). There are examples⁸⁹ of this playing out.

A federal agency could award contracts for differences through a competitive process, such as auction calls or competitive tenders, cost-effectively de-risking⁹⁰ private sector low-carbon investments, by guaranteeing the lowest acceptable carbon price that the projects need to go ahead. Once projects are covered by contracts for differences, the agency

88 Dave Sawyer, Bradford Griffin, Dale Beugin, Franziska Förg, & Rick Smith, "Independent Assessment: 2030 Emissions Reduction Plan" (April 2022). <https://climateinstitute.ca/reports/assessment-2030-emissions-reduction-plan/>

89 Blake Shaffer and Jason Dion, "Building on Canada's electrical advantage" (January 2022). Policy Options. <https://policyoptions.irpp.org/magazines/january-2022/building-on-canadas-electrical-advantage/>
90 Sara Hastings-Simon and Blake Shaffer, "Valuing Alberta's renewable electricity program" (March 2021). The School of Public Policy, University of Calgary. <https://www.policyschool.ca/wp-content/uploads/2021/03/EEP-trends-Shaffer.pdf>



Photo: Austin Distel



Photo: Cosmin Serban

would pay projects the differential if the actual carbon price is lower than the contracted minimum guaranteed carbon price, and would receive payment if the actual carbon price is higher than the contracted guaranteed carbon price. This means more decarbonization can be achieved with a given level of carbon pricing and decreases the likelihood a future government will weaken carbon pricing, because they would have to pay out these contracts.⁹¹ To enable carbon contracts to lower the risk of major policy changes to the carbon pricing regime, a number of market and policy uncertainties should be addressed. They include making carbon credit prices transparent, plans for periodic and transparent credit market reviews and recommendations, and output based pricing stringency that is aligned with national net-zero commitments. Without those measures, contracts are based only on the legislated carbon price as opposed to the actual carbon credit prices,⁹² without consideration of the expected oversupply of credits.

Recommendation:

Allocate up to **\$10 billion** to the Canadian Infrastructure Bank or Clean Growth Fund to create

91 Ibid; Blake Shaffer and Jason Dion, “Building on Canada’s electrical advantage.” Policy Options (January 2022). <https://policyoptions.irpp.org/magazines/january-2022/building-on-canadas-electrical-advantage/>; Oliver Silver and Chris Bataille, “Decarbonizing basic materials in Europe: How Carbon Contracts-for-Difference could help bring breakthrough technologies to market.” https://www.iddri.org/sites/default/files/PDF/Publications/Catalogue%20Iddri/Etude/201910-ST0619-CCfDs_0.pdf

92 This assumes contracts are focused on backstopping credit values within an output based pricing system.

a competitive bidding process for contracts-for-difference, developed in consultation with ECCC, FIN, NRCan, INFC, and other relevant agencies. The contracts would be primarily focused on difficult to decarbonize sectors excluding oil and gas (e.g., cement, steel). There should be explicit rules capping upfront and long-term subsidies paid to industry, use competition and targeted calls for contracts to drive cost-efficient emissions reductions, engage stakeholders, and be clear on which aspects of Canada’s carbon pricing landscape are in scope. The program should report on its role in subsidizing sectors, program costs, revenues, and emissions reductions it achieves. To enable these contracts, federal and provincial carbon pricing systems must make credit prices public information, their stringency must increase at least 4% per year to align with Canada’s net-zero commitment, and transparent processes are needed to monitor and make recommendations on credit market management.

See also Cleaning up and decarbonizing domestic shipping, on pricing shipping emissions, later in this document; and Aligning federal investments and policies, including subsidies, with Canada’s Nature commitments, earlier in this document, on pricing forestry-related emissions.

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Municipalities

Creating a permanent municipal climate action fund

Almost 50% of Canada's emissions fall largely under city control, therefore targeted climate funding for cities, towns and communities is essential. For example, emissions from Toronto, Edmonton, Calgary and Montreal make up almost 10% of those municipal emissions, on par with total electricity emissions in the country. While the imperative for municipal climate action grows, so too does an infrastructure deficit.⁹³ For example cities are responsible for 60% of infrastructure costs and collect just 10% of tax dollars. Given these funding deficiencies, robust municipal climate action cannot

⁹³ Estimates range from \$50 billion to \$570 billion with most averaging between \$110 billion and \$270 billion. CanInfra, "Estimates of Canada's infrastructure deficit vary widely." <https://www.caninfra.ca/insights-6>

be adequately funded by the property tax base.

Recent federal budgets have included funding to help municipalities reduce emissions, such as investments in transit, electric vehicle charging infrastructure, building retrofits and nature-based solutions.

There are also funding streams for other municipal priorities, such as infrastructure. Yet revenue streams to fully support robust and targeted climate action remain limited and non-permanent. The Canada Community-Building Fund (\$2 billion annually for strategic infrastructure investments) offers a model for a permanent, indexed fund provided directly to municipalities. A parallel permanent funding mechanism is needed to enable municipal action on local climate priorities.



Photo: Karsten Wurth



Flexible and dependable climate-focused funding options, in particular climate action plan implementation, remain rare. It is critical to move away from one-off grants and toward sustained long-term funding that enables coherent community climate responses. This recommended fund would encourage adoption of standardized indicators and methodologies in climate planning as a condition for funding, similar to funding criteria articulated in the Green Budget Coalition’s Green Strings recommendations, elsewhere in this document.

In addition, the Canada Infrastructure Bank should focus on supporting action at the community scale. This could include community energy planning for technologies such as smart grids or district energy that have the potential to be revenue generators and attract significant private capital.

Recommended focus:

Building off past investments such as the five-year Municipalities for Climate Innovation Program, an expanded, targeted climate fund would allow municipalities to seek resources to take climate action and implement climate action plans not funded by other sources. Projects supported via the fund would need to demonstrate their benefits in terms of reduced emissions and improved resilience to a changing climate.

The Green Budget Coalition recommends a new fund, complementing existing funding streams, that municipalities can access for the following:

- Developing climate plans, climate data collection and acquisition, and translation. Gaps in consistent GHG emission data at the municipal level are enormous and need to be resolved to ensure effective and methodologically consistent climate action. Funding is also needed to undertake standardized climate risk assessments. Resources such as climatedata.ca exist, but most municipalities do not have the expertise and resources to use that data to inform their work.
- Climate mitigation actions. As mentioned above, dedicated funding for implementation of action plans that demonstrate evidence-based and science aligned outcomes.

- Climate resilient infrastructure—beyond the current scope of the Disaster Mitigation and Adaptation Fund.
- Support for full municipal and Indigenous community engagement in the planning for and implementation of the National Adaptation Strategy, recognizing the local nature of addressing resilience in the face of worsening climate impacts that disproportionately affect low-income and vulnerable people.

Recommended Investment:
\$3 billion per year until at least 2030–31, to establish a municipal climate fund. [INFC]

See also Advancing a zero-emissions electricity grid based on renewables and National Adaptation Strategy - funding implementation, elsewhere in this document.

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Transportation

Building capacity to accelerate the electric school bus transition

Electrifying Canadian school bus fleets is imperative for the climate and the health of local communities. Retiring diesel buses in favour of electric counterparts improves air quality for our children, makes progress on the emissions reductions needed to reach Canada's 2030 goals, and provides long-term operational cost savings to fleets. Several public funding mechanisms^{94,95,96} have helped subsidize electrification for school districts and private fleet operators. However, while purchase incentives play a key role in enabling fleet electrification, they are only one component. Public

and private sector fleet managers and operators also need to be equipped with the capacity and training to manage new electric vehicles, install charging infrastructure and undertake any necessary electrical service upgrades. Undertaking feasibility studies, navigating infrastructure barriers and clarifying fleet requirements can present barriers to adoption. Some fleets are eligible for provincial rebates to conduct infrastructure assessments, and federal funding is available for feasibility studies and modelling,⁹⁷ but not all fleet managers and operators know where to start with an assessment. Canada needs to support additional programs that build the confidence of school bus fleet owners and managers to jump into the zero-emission transition.

New federal funding would help accelerate adoption, build operator confidence, and ensure successful long-term management of electric school buses. Investment in education and capacity-building is a necessary complement to incentives in the net-zero puzzle. Without it, Canada's zero-emission mobility transition will be slower to take off.

Recommended Investment:
\$4 million through NRCan,
accessible to both public sector and non-governmental organizations, to support capacity building, education and awareness activities that accelerate the electrification of school bus fleets.

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Photo: Kentaro Toma

94 Canada Infrastructure Bank, "British Columbia Zero-Emission School Buses." <https://cib-bic.ca/en/projects/public-transit/bc-school-buses/>

95 BC Gov New, "Fleet of the future: electric school buses coming soon." <https://news.gov.bc.ca/releases/2021EDUC0031-000848>

96 Jasmin Legatos, "Quebec unveils funding to electrify 65 per cent of all school buses by 2030." <https://electricautonomy.ca/2021/04/28/quebec-electric-school-buses-2030/>

97 Infrastructure Canada, "Zero Emission Transit Fund." <https://www.infrastructure.gc.ca/zero-emissions-trans-zero-emissions/index-eng.html>

Reducing carbon emissions from the transport sector through smart pricing, electric-assisted bikes and equity solutions

In March 2022, through its Emissions Reduction Plan, Canada made official its zero-emission vehicle (ZEV) sales target of 100% by 2035 and adopted new targets of 20% by 2026 and 60% by 2030. However, recent modeling shows that the policies announced or in effect as of September 2021 were much too weak to reach these targets.⁹⁸ This challenge is compounded by Canadians' preferences towards large, high-fuel-consumption SUVs and light-duty trucks, which in 2021 represented 81% of new vehicle sales, while ZEVs accounted for just 5.6% of new vehicle sales.⁹⁹ As a result, Canada has the world's highest emitting vehicle fleet in the world.

Increasing the cost of fuel-inefficient vehicles

Achieving these new targets and reducing carbon

98 Axsen, John & Chandan Bhardwaj, "Policy Pathways to 100% Zero-Emission Vehicles by 2035 in Canada: Analysis and Research Report," START (2022). https://cms.equiterre.org/uploads/rapport_zev_en3.pdf (report commissioned by Équiterre and the David Suzuki Foundation)

99 Environment and Climate Change Canada, "2030 Emissions Reduction Plan," 2022. <https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/erp/Canada-2030-Emissions-Reduction-Plan-eng.pdf>

emissions from the transport sector will require a combination of measures that rapidly boost both demand and supply of ZEVs while disincentivizing large, inefficient internal combustion engine (ICE) vehicles. Representing the second largest household expense after housing, transportation - especially clean transportation - needs to be less of a burden for Canadians.

On the demand side, the Green Budget Coalition welcomed recent investments in Budget 2022 to replenish the iZEV program launched in 2019, which has contributed to the recent uptick in ZEV sales; as of March 2022, it had supported the purchase of more than 136,000 ZEVs.¹⁰⁰ Still, even taking the \$5,000 iZEV rebate into account, there is a considerable upfront price differential between most ZEVs and gas vehicles in the same class, and this influences consumer choices—even if ZEVs are the better deal when full costs of ownership and fuel are accounted for, a factor that many consumers fail to consider.

To both increase the effectiveness of the Green Levy

100 Ibid.



Photo: Javygo



program and complement the federal government's iZEV program by reducing its cost, the Green Budget Coalition recommends introducing an environmental fee that is negatively correlated with a vehicle's fuel efficiency, on sales of all ICE vehicles, and which would be phased in over time. Revenues could then be recycled to offset federal spending on ZEVs.¹⁰¹

The proposed fee would modernise and expand or replace the Green Levy program, which applies primarily to large SUVs and luxury vehicles, and the luxury vehicle tax announced in the 2021 federal budget. Such initiatives only cover a small portion of passenger vehicles, involve weak disincentives, and have proven inefficient in driving emissions reductions. The Green Levy should signal the full costs of fuel-inefficient vehicles by being added to their sticker price.

European success stories of ZEV uptake offer inspiration. For example, Sweden, which set 2030 as the year by which it will have phased out ICE vehicles, has a feebate system and has seen ZEV uptake increase from just above 5% at the end of 2017 to over half by the end of 2021.¹⁰²

101 Amin Asadollahi & Trevor Rous, "The Road Ahead to Low-Carbon Mobility: A Feebate System for Canada's Light-Duty Vehicle Segment," Horizon Advisors, commissioned by Équiterre (2020). https://legacy.equiterre.org/sites/fichiers/report_the_road_ahead_to_low-carbon_mobility_low_0.pdf

102 Ibid; Maximilian Holland, "Sweden's Plugin EV Share Breaks New Records." <https://cleantechnica.com/2022/01/06/swedens-plugin-ev-share-breaks-new-records/>

Recommendation:

Modernise and expand or replace the Green Levy program with a comprehensive, emission-based fee on the purchase of ICE vehicles, aligned with Canada's climate policy. By 2024, coordinate the fee structure with the iZEV purchase incentive for a revenue-neutral feebate system. [NRCan, FIN, TC]

Rewarding sustainable mobility choices through electric-assisted bike subsidies

For a fair transition to low-emission, energy-efficient mobility, policies should focus on moving away from personal vehicles and towards collective and active modes of transport such as car sharing and cycling. Literature is clear on the fact that transitioning Canada's vehicle fleet to fully electric vehicles will not be enough to reach our climate targets, nor will it solve any of the other car-related issues, such as traffic, safety and public health.¹⁰³

To reduce the number of vehicles on the roads, rewarding individuals who leave their car at home or get rid of it is the way to go. As such, the federal

103 Influence Map, "Analyzing the Automotive Sector on Climate Change," (2022). <https://automotive.influencemap.org/index.html>; Alexandre Milovanoff, I. Daniel Posen et Heather L. MacLean, "Electrification of light-duty vehicle fleet alone will not meet mitigation targets," Nature Climate Change (2020). <https://doi.org/10.1038/s41558-020-00921-7>; Todd Litman, "Clean Vehicles Versus Vehicle Travel Reductions: Better Transportation Emission Reduction Planning" (2021). <https://www.planetizen.com/blogs/114511-clean-vehicles-versus-vehicle-travel-reductions-better-transportation-emission>



government could take inspiration from Nova Scotia’s EV Assist¹⁰⁴ and France’s *Bonus vélo*¹⁰⁵ programs, both of which provide a partial refund of the costs associated with the purchase of an electric-assisted bike. In the former, it has been the most subscribed portion of the ZEV incentive program in Nova Scotia and has helped increase the socioeconomic diversity in program participants, offering equity and affordability benefits, in addition to the co-benefits associated with bike travel.¹⁰⁶

Recommended Investment:
\$50 million over two years to
 expand the iZEV program to help support the purchase of 50,000 electric-assisted bikes by offering a 40% purchase subsidy (up to \$1,000). [TC]

Making zero-emission vehicles more accessible

To increase ZEV accessibility among Canadians, the House of Commons Standing Committee on Environment and Sustainable Development recommended that the Government of Canada allow used ZEVs to be eligible for incentives, taking inspiration from Québec, Nova Scotia and British Columbia among others, as well as scaling iZEV’s incentives to income.¹⁰⁷

Such considerations can play an important role in broadening ZEV uptake by targeting low-income individuals. In contexts in which alternatives to automobile ownership are not viable, low-income households must not be left behind and should be able to afford a ZEV. Studies show that, in addition to increasing equity, targeting incentives to low-income households makes purchase subsidy programs more cost-effective, “as wealthier households are more

likely to buy an EV without any subsidy.”¹⁰⁸

For example, Québec’s *Roulez vert* program offers a rebate for used vehicles that is equal to 50% of the rebate that would be offered for the same vehicle if it was new (up to \$3,500), but the vehicle can only be eligible for a rebate once. Ontario offers a smaller rebate of \$1,000 when registering a used, fully electric car without any limit on the number of registrations that qualify for the rebate. However, it has to be registered and insured under the same owner for at least 12 months in order to be eligible another time.

Furthermore, an income cap for admissibility to the iZEV program could benefit more families throughout Canada. As such, California’s approach shows great promise: it has set an income cap for rebate eligibility at USD\$150,000 per year for single filers,¹⁰⁹ and higher incentives are offered to low-income households, with a maximum qualifying income based on the household size (from USD\$51,520 to USD\$178,640).¹¹⁰

Recommendations:

- Make used EVs eligible for the iZEV subsidy program. [TC]
- Scale ZEV purchase incentives to household income and put a cap on eligibility based on household income (e.g., \$150,000). [TC]

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104 EV Assist Nova Scotia, “Rebates” (2022). <https://evassist.ca/rebates/>
 105 Ministère de l’Économie, des Finances et de la Souveraineté industrielle et numérique, “Bonus vélo : une aide pour l’achat d’un vélo à assistance électrique (VAE).” <https://www.economie.gouv.fr/particuliers/prime-velo-electrique>
 106 Jessica E. Bourne et al, “The impact of e-cycling on travel behaviour: A scoping review,” *Journal of Transport & Health* (2020). <https://doi.org/10.1016/j.jth.2020.100910>
 107 ENVI Committee, “Report 3 – The Road Ahead: Encouraging the Production and Purchase of Zero-Emission Vehicles in Canada” (2021). <https://www.ourcommons.ca/Content/Committee/432/ENVI/Reports/RP11209745/envirp03/envirp03-e.pdf>

108 Sharpe, Ben & Godron Bauer, “Low-income households could benefit the most from EVs, but we need policy fixes to make that happen,” *Electric Autonomy Canada* (2021). <https://electricautonomy.ca/2021/04/13/ev-equity-incentive-policies/>
 109 Asadollahi & Rous, “The Road Ahead to Low-Carbon Mobility” (2020). https://legacy.equiterre.org/sites/fichiers/report_the_road_ahead_to_low-carbon_mobility_low_0.pdf
 110 Clean Vehicle Assistance Program, “Eligibility” (2022). <https://cleanvehiclegrants.org/eligibility/>

Cleaning up and decarbonizing domestic shipping

The shipping industry is one of the world's largest emitters of greenhouse gases (GHGs). If it were a country, it would be the world's sixth-biggest climate polluter. Canada must take steps to address the climate impacts of marine shipping and to ensure that the polluter pays principle applies to this industry. In addition, disturbance, oil spills, whale strikes, and pollution from ships can severely impact critical habitat as well as Indigenous and community food security and health.

Recommendations:

Accelerating zero-emission shipping

- 1. Zero-emission vessels: \$20 million over two years** for R&D and sea trials to meet the target of 100% zero-emission vessels in Canadian inland waters by 2030. [TC, NRCan]
- 2. GHG emission reduction innovation fund: \$10 million over two years** towards a GHG reduction innovation fund to provide advisory and capacity-building services to assist with vessel design, retrofit and testing for wind-assist, solar, electrification, autonomous technology and digitalization, and hull appendages. [TC]
- 3. Shore power: \$100 million over five years** to develop and begin implementing a national shore power plan to ensure vessels and ports are equipped for shore power. [TC, ECCC, INFC]
- 4. Alternative fuels: \$100 million over five years** to ensure alternative fuels are readily available at Canadian ports to facilitate full decarbonization of Canadian shipping before 2050. Consideration should only be given to alternative fuels that offer significant life-cycle GHG benefits on a well-to-wake basis, including land-use change emissions. Liquefied natural gas, liquefied petroleum gas, and other fossil fuels should be explicitly excluded. [TC, ECCC, INFC]
- 5. Marine fuel carbon pricing: \$5 million over two years** to develop and implement a policy instrument to explicitly include domestic shipping in the Canadian carbon pricing



Photo: Timelab Pro



system. [TC, ECCC, DFO]
See also Canada’s carbon pricing needs greater certainty to unlock decarbonization investments, earlier in this document.

Generating revenue

1. **Vessel pollution control fund:** Require the collection of fees from vessels and deposit such fees in the fund to apply in the innovation programs specified above [TC];
2. **Cruise tourism:** Over three million cruise passengers transit through Canadian waters each year. Require the collection of a fee for every passenger who comes into Port in Canadian waters to fund an initiative, equivalent to the Indigenous Guardians Program or Alaska’s Ocean Ranger Program, to monitor and enforce compliance with federal

requirements pertaining to marine discharge and pollution by cruise ships and ferries [TC]; and

3. **Insurance fund:** Establish a legally enforced insurance fund paid by the marine sector for public health and environmental impacts on local and Indigenous communities. This fund would ensure that there is proper compensation for those people amid any potential disruption or disaster. [TC]

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Photo: William William

Just Transition to a clean energy future for workers and communities

Many Green Budget Coalition recommendations are aimed at facilitating a transition to a low-carbon economy. This crucial transition will not succeed unless we address the welfare of affected workers and communities and approach the transition from the perspective of equity and fairness. If people working in carbon-intensive fields cannot see a prosperous future for themselves beyond fossil fuels, there will be resistance to the transition.

The Green Budget Coalition welcomes the inclusion of a federal Just Transition Act in the mandate letters to the Ministers of Natural Resources and Labour. In developing this legislation, it is important to involve labour, industry, governments and other stakeholders, and to adhere to the International Labour Organization (ILO) Guidelines.¹¹¹ There are

¹¹¹ International Labour Organization, “Guidelines for a just transition towards environmentally sustainable economies and societies for all.” https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_ent/

also important opportunities to support Indigenous leadership and participation in the low-carbon economy and to advance goals around reconciliation through Indigenous engagement.¹¹²

The recent audit of the Commissioner of the Environment and Sustainable Development (CESD) found that the federal government “was not prepared to support a just transition to a low-carbon economy.”¹¹³ Recent economic and energy upheavals demonstrate the urgency for the government to follow through on its promise to implement a national just transition strategy. The Green Budget Coalition strongly encourages the Government

[documents/publication/wcms_432859.pdf](#)

¹¹² Indigenous Clean Energy, “Briefing Note for Federal Government Officials: Indigenous Engagement & Inclusion in Clean Energy” (2021).

¹¹³ Commissioner of the Environment and Sustainable Development, “Just Transition to a Low-Carbon Economy.” https://www.oag-bvg.gc.ca/internet/docs/parl_cesd_202204_01_e.pdf



Photo: American Public Power Association



of Canada to act on the recommendations of the CESD¹¹⁴ to avoid the mistakes made in implementing the recommendations of the Task Force on Just Transition for Canadian Coal Workers and Communities.¹¹⁵

Embedding a just transition in Canada’s budget and climate agenda will set a strong precedent as the world moves to a low-carbon economy and help increase public support for climate policy.

The Green Budget Coalition encourages the federal government [NRCan, ESDC, PCO] to:

1. Identify opportunities to scale up just transition funding, including in Budget 2023:
 - a. For workers in industries impacted by a transition to a low-carbon economy and the communities that rely on these industries;
 - b. For just transition legislation, strategy and implementation while applying eco-conditionality measures to ensure a trajectory consistent with net-zero; and
 - c. Identify how the \$2 billion Futures Fund will be spent, prioritizing these funds for worker-focused direct supports.
2. Move forward with legislation and a national just transition strategy, grounded in equity, social dialogue and the ILO Guidelines and that reflects international best practice and a tripartite-plus approach. This should include creation of a federal authority whose work is informed by an independent expert commission with diverse members, including workers from impacted sectors.
 - a. Implement and adequately fund the CESD’s full suite of recommendations contained in its Just Transition to a Low-Carbon Economy report and ensure the necessary staffing supports.
3. Identify opportunities to strengthen job creation, through advancing, retraining and hiring of affected workers, creating opportunities for low-income and vulnerable

communities, and carrying out strategic green industrial policy planning, while leveraging opportunities for Indigenous engagement, capacity-building, inclusion and leadership.

- a. Build on pilot projects such as Calgary Economic Development’s Edge Up, that work in partnership with existing educational institutions to retrain unemployed workers from the oil and gas sectors.

Investment amounts should be determined through tripartite-plus processes (including labour, employers, Indigenous groups and other partners). For a sense of the scale of what may be required in Canada, the EU Just Transition Fund is EUR 17.5 billion, in addition to public loan facilities and schemes to mobilize up to EUR 60 billion in investments, and the EUR 145 billion Social Climate Fund that will assist poorer households with transition.¹¹⁶ The Canadian Centre for Policy Alternatives estimates that adequate funding for the proposed legislation would be \$16.5 billion per year, decreasing over time.¹¹⁷

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114 Ibid.

115 Canada’s Task Force on Just Transition for Canadian Coal Power Workers and Communities, “Final Report.” <https://www.canada.ca/en/environment-climate-change/services/climate-change/task-force-just-transition/final-report.html>

116 Lavinia Tanase, “Will We Enable a Just and Socially Inclusive Energy Transition in Romania?” <https://energyindustryreview.com/opinion/will-we-enable-a-just-and-socially-inclusive-energy-transition-in-romania/>

117 Hadrian Mertins-Kirkwood and Clay Duncalfe, “Roadmap to a Canadian Just Transition Act.” <https://www.policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2021/04/Roadmap%20to%20a%20Canadian%20just%20transition%20act.pdf>

Nature-based Solutions: leveraging the power of nature to tackle the dual climate and biodiversity crises, while building more prosperous and resilient communities across Canada

Nature-based Solutions (NbS)¹¹⁸ are actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits. They are an essential complement to efforts to reduce fossil fuel-related emissions and enable successful global efforts to address climate change and meet the goals of the Paris Agreement.

Peer-reviewed research¹¹⁹ highlights the potential of NbS to reduce Canada's emissions by up to 78 megatonnes of CO₂e annually in 2030—the equivalent of 11% of our 2018 annual emissions.

With around half of global GDP—some USD \$44 trillion—estimated to be highly or moderately dependent upon nature, NbS can also play a

critical role in supporting economic recovery and job creation.¹²⁰ The economic benefits of NbS are especially promising in rural, Indigenous and other resource-dependent communities—many of which are already bearing the brunt of the effects of climate change, and among those most likely to be impacted by transitions in global energy markets. Farmers adopting nature- and climate-positive agricultural practices, for example, can increase their profit margins¹²¹ by as much as 30%, but require at least two years of financial support to transition their operations. With much of the growing demand for carbon offsets expected to be met by nature-based sequestration and avoided nature loss, investments in NbS can also play a critical role in orienting private investment towards natural assets and ecosystems,

118 IUCN, "About - Nature-based Solutions." <https://www.iucn.org/theme/nature-based-solutions/about>

119 Nature United, "Natural Climate Solutions" (2021). <https://www.natureunited.ca/what-we-do/our-priorities/innovating-for-climate-change/natural-climate-solutions/>

120 Andrew Deutz et al. "Financing Nature: Closing the Global Biodiversity Financing Gap." https://www.paulsoninstitute.org/wp-content/uploads/2020/10/FINANCING-NATURE_Full-Report_Final-with-endorsements_101420.pdf

121 Fernando Martins, et al., "Helping Farmers Shift to Regenerative Agriculture" (2021). <https://www.bain.com/insights/helping-farmers-shift-to-regenerative-agriculture/>



Photo: Malachi Brooks



Photo: NOAA

while supporting the evolution of Canada's carbon markets.

Amid more frequent and intense extreme weather events, NbS can also support more resilient communities, thereby mitigating or avoiding future costs. When developed and implemented in direct partnership with governments, Indigenous and local communities, and industry, NbS can: contribute to cleaner water, air and food production; protect against wildfires, droughts and flooding; and provide recreational spaces that support better physical and mental health outcomes. NbS can also deliver tremendous air, water, and soil benefits, helping to conserve biodiversity by protecting and restoring habitat for important species.

Upwards of \$50 billion will be required to meet the full emissions reduction potential (78 Mt CO₂e/year) and associated co-benefits from NbS by 2030. A down payment of \$10 billion by 2025 will enable Canada to reach the halfway mark by capturing the emissions reduction potential of the most readily available and cost-effective NbS. Canada is already well on its way, with \$4.88 billion committed through the Natural Climate Solutions Fund (NCSF), and an additional \$820 million invested in agricultural climate solutions outside the NCSF. Assuming a NbS dividend of 15% from recent investments in conservation and biodiversity initiatives, natural infrastructure, Green Bonds and other agricultural

initiatives, it is reasonable to estimate that Canada has mobilized roughly \$7 billion towards NbS. The recommendations in the Nature Conservation and Agriculture sections in this document represent important steps towards bridging the NbS funding gap and advancing the least-costly NCSF pathways. By articulating these investments within a predictable and science-based NbS finance roadmap centred on actions with the greatest potential to yield pre-2030 emissions reductions and co-benefits, the Government of Canada can hold itself accountable for closing the NbS financing gap while stimulating investments from other levels of government and private investors, and maximise near-, mid- and long-term returns across Canada's biodiversity, conservation, agricultural and other relevant economic development plans and programs.

Recommendation:

Mobilize an additional **\$3 billion** for nature-based solutions **by 2025**, including by funding several Green Budget Coalition recommendations in this document, according to a science-based NbS roadmap structured to maximize emissions reductions and co-benefits.

Canada's NbS Opportunity - Investments to Date + Further Potential (millions of dollars)

Required funding to realize half of Canada's NbS potential	10,000
Announced federal NbS investments to date (<i>see list below</i>)	7,035
NbS financing gap to 2025	2,965
Green Budget Coalition's recommended additional NbS investments for Budget 2023 (in this document, <i>see list below</i>)	3,164

Announced federal NbS Investments to date (millions of dollars)

Emissions Reduction Plan (& Budget 2022)	Nature Smart Climate Solutions Fund	780
	Agricultural Climate Solutions: On-Farm Climate Action Fund	470
	Resilient Agricultural Landscapes	150
	Agricultural data	*100
Budget 2021	Nature Legacy	*2,300
	Agricultural Climate Solutions program / On-Farm Climate Action Fund	200
	Natural Infrastructure Fund	*200
	Green Bonds	*5,000
Fall Economic statement 2020	Two billion trees program	3,160
	Climate Smart Ecosystems	631
	Agricultural climate solutions	283
Budget 2018	Nature Legacy	*1,300
	Subtotal NbS	5,700
	Subtotal other* 8,900	
	* Assume 15% NbS in "other" funding	1,335
	Assumed total NbS	7,035



Green Budget Coalition’s recommendations for Budget 2023 (in this document) that would advance nature-based solutions

Recommendation	Recommended Investment	Totals by 2025-26 (millions of dollars)
Long-term management and monitoring of terrestrial protected areas	\$750 million per year increasing to \$1.5 billion per year by 2030-31 [ECCC, PC]	*2,250
Long term management and monitoring of marine protected areas	\$650 million per year increasing to \$1.3 billion per year by 2030-31 [DFO, ECCC, PC]	*1,950
Connectivity fund	\$500 million over three years [ECCC]	500
Enabling collaborative approaches to conservation	\$600 million over eight years (to 2030-2031) [ECCC]	*225
Habitat Restoration Fund	\$500 million over seven years, match funded 1:1 [ECCC, AAFC, DFO]	214
Habitat Infrastructure Renewal Fund	\$150 million over four years [ECCC]	112
Mapping, researching and restoring Canada’s blue carbon	\$100 million over five years [DFO]	*60
Natural Infrastructure Fund top-up	Additional \$400 million over three years for the Natural Infrastructure Fund. [INFC]	*400
Freshwater management	\$1.21 billion over five year [mostly ECCC]	*638
National Perennial Forage Conversion Program	\$500 million over five years [AAFC]	300
Economic and environmental return of marginal land	\$500 million over five years [AAFC]	300
Avoided conversion of native and tame grasslands	\$1 billion over five years [AAFC]	600
Tools, Technology Transfer, and Technical Assistance for Producers to accelerate the adoption of beneficial management practices (BMPs)	\$500 million over five years [AAFC]	*300
Soil health	\$6 million over 3 years [AAFC]	*6
Climate Risk Reduction Fund	\$435 million over 5 years [AAFC]	261
Pilot innovations in BRM design	\$10 million over 3 years [AAFC]	*10
	Subtotal NbS	2,288
	Subtotal other*	5,839
	* Assume 15% NbS in “other” investments	876
	Assumed total NbS	3,164

See also detailed versions of the above recommendations, elsewhere in this document.

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NATURE CONSERVATION AND RESTORATION: HALTING AND REVERSING BIODIVERSITY LOSS

Introduction

Humanity faces imminent existential threats from the dual crises of climate change and biodiversity loss. Our ongoing destruction and degradation of natural ecosystems lies at the heart of both crises. There is growing evidence and recognition that the protection, restoration and better management of land and marine ecosystems is critical to reducing greenhouse gas levels and adapting to climate change, stemming species decline, and ensuring positive outcomes for human health and well-being. Indigenous knowledge systems, governance and conservation approaches have recognized this for centuries and have much to offer.

The federal government has now set a clear and ambitious overarching goal to halt and reverse biodiversity loss by 2030 and achieve full recovery by 2050, building on its foundational existing commitment to conserve at least 30% of land and ocean by 2030 in protected areas and other effective area-based conservation measures, and to champion these goals internationally. A new global biodiversity strategy is currently in the final stages of negotiation

and is expected to be completed and adopted in Montreal in December 2022 with ambitious global goals and targets for nature. Combined with climate and human development goals, the vision is for an equitable, nature-positive, carbon-neutral world.

As a signatory of the G7 2030 Nature Compact, the Leaders' Pledge for Nature, the High Ambition Coalition for Nature and People, and the Global Ocean Alliance, and now as host of CBD COP 15 in Montreal, Canada is well-positioned to help lead and realize this vision. Since 2018, the federal government has made important investments to support the conservation of nature, including through Indigenous-led conservation. Canada also has a new, more ambitious 2030 climate target, and the government has recognized that protecting and restoring nature is key to achieving it. Now the Canadian government needs to spend these major investments smartly, address critical remaining funding gaps, and put in place the tools and policies to put us on the path to nature's full recovery.



Canada’s Major Commitments to Nature Conservation include:

- Federal Minister mandate letters – ECCC and DFO¹²²
- G7 2030 Nature Compact¹²³
- Leader’s Pledge for Nature¹²⁴
- High Ambition Coalition for Nature and People¹²⁵
- Global Ocean Alliance¹²⁶
- Global Biodiversity Framework¹²⁷
- UN Declaration on the Rights of Indigenous Peoples¹²⁸

The Green Budget Coalition’s nature-related recommendations focus on the need for long-term, scaled-up investment, commensurate with the scale of the problem, in the protection, restoration and better management of natural areas and biodiversity.

- Canada must protect and connect its remaining intact marine and terrestrial ecosystems in a way that centres Indigenous rights, and supports Indigenous leadership in conservation, including governance and stewardship of protected areas.
- Canada must restore degraded ecosystems,

122 “Minister of Environment and Climate Change Mandate Letter” (2021). <https://pm.gc.ca/en/mandate-letters/2021/12/16/minister-environment-and-climate-change-mandate-letter>
 “Minister of Fisheries, Oceans and the Canadian Coast Guard Mandate Letter” (2021). <https://pm.gc.ca/en/mandate-letters/2021/12/16/minister-fisheries-oceans-and-canadian-coast-guard-mandate-letter>

123 “G7 2030 Nature Compact” (2021). https://www.international.gc.ca/world-monde/international_relations-relations_internationales/g7/documents/2021-06-13-nature_compact-nature_horizon-2030.aspx?lang=eng

124 The Leaders’ Pledge for Nature, <https://www.leaderspledgefornature.org/>

125 The High Ambition Coalition (HAC) for Nature and People, <https://www.hacfornatureandpeople.org/home>

126 Global Ocean Alliance: 30by30 initiative, <https://www.gov.uk/government/topical-events/global-ocean-alliance-30by30-initiative>

127 “A New Global Framework for Managing Nature Through 2030: First detailed draft agreement debuts” (2021). <https://www.cbd.int/article/draft-1-global-biodiversity-framework>

128 “Implementing the United Nations Declaration on the Rights of Indigenous Peoples Act” (2021). <https://justice.gc.ca/eng/declaration/index.html>

particularly in the Canadian south and in coastal areas where habitat loss continues to push at-risk species toward extinction with a focus on enhancing and connecting the fragments of nature that remain intact.

- Canada must better manage for outcomes that increase biodiversity and support abundance by developing and implementing policies and plans to drive overall progress, including through better monitoring and evaluation of the health of land and seascapes. Canada must also incentivize and support land and marine use policies that maintain and enhance the biodiversity and carbon-storage capacity of forests, grasslands, farmlands, wetlands, and freshwater, coastal and marine ecosystems, including eelgrass, kelp, and the seabed.
- To achieve the ambitious goal of halting and reversing biodiversity loss by 2030 and full recovery of biodiversity by 2050 it is important that this be the responsibility of the entire federal government. This requires significant work to align federal financial flows and policies across government with achieving this goal, including by reviewing and reforming environmentally harmful subsidies.

The opportunity to build on Canada’s current momentum and demonstrate leadership to stem global warming and reverse biodiversity loss is high. The Nature investments in this document—totalling \$12.5 billion for the next five years, followed by \$2.5 billion in 2028-29, \$2.7 billion in 2029-30, and \$2.9 billion in 2030-31—are a vital part of achieving this goal. The Green Budget Coalition and its member organisations are committed to helping deliver on this opportunity.

For the Green Budget Coalition’s feature recommendation for nature conservation and restoration, please see earlier in this document for:

- *Delivering on Canada’s land and ocean protection commitments.*

Restoration

Habitat degradation and loss are the main drivers of species decline and cause the loss of critical climate resilience services, while increasing GHG emissions through the release of ecosystem emissions and reductions in landscape carbon storage capacity. These impacts are fundamentally undermining Canada's response to the biodiversity crisis and are limiting our ability to leverage nature-based solutions to help meet our conservation and climate commitments.

The United Nations' Decade on Ecosystem Restoration 2021-2030¹²⁹ is calling for the protection and revival of ecosystems globally for the benefit of people and nature. Given Canada's strong background in restoration, and significant international contributions to knowledge, practice, and policy, there is potential to show global leadership in restoration while simultaneously bolstering our economy¹³⁰ and meeting our biodiversity and climate commitments. With only seven years remaining, significant efforts are required to build a global restoration movement and coordinated approach to combat climate change and biodiversity loss.

Establishing a UN Decade on Ecosystem Restoration Office

To respond to these challenges, the Green Budget Coalition recommends that the federal government **establish a UN Decade on Ecosystem Restoration Office** to implement ecosystem restoration projects in Canada by mobilizing science, policy, and good practice in support of key 2030 and 2050 biodiversity and climate goals. There are significant opportunities for partnerships with universities, government departments, environmental NGOs, and industries to develop a national approach to restoration and coordinated policy development. The key will be to

invest in restoration initiatives that maximize both socio-economic and ecological returns, advancing the government's vision for a transformative change toward a healthy, nature-centred, and low-carbon economy. Commitment to the integration of restoration and science will enable Canada to more clearly demonstrate the impacts of investments to achieve 2030 and 2050 biodiversity and climate goals.

Recommended Investment:
\$1 million per year for five years
[ECCC]

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Photo: Ducks Unlimited

129 The UN Decade on Ecosystem Restoration, "UN Decade on Restoration." <https://www.decadeonrestoration.org/>

130 According to the National Oceanic and Atmospheric Administration, Socioeconomic Benefits of Habitat Restoration. Habitat restoration activities are effective at generating jobs and economic returns, creating as many as 33 jobs per \$1 million invested, most of which resulted in localized employment benefits with higher-than-average wages, similar to the construction industry at large. Giselle Samonte et al, "Socioeconomic benefits of habitat restoration." NOAA technical memorandum NMFS-OHC 1 (2017). <https://repository.library.noaa.gov/view/noaa/15030>



Habitat Restoration Fund

The Green Budget Coalition recommends that the federal government invest in a new and scaled-up **Habitat Restoration Fund** managed by ECCC in collaboration with AAFC and DFO that focuses on net habitat and biodiversity gains with enhanced protected area hectares outcomes in wetlands, native grasslands, meadows, riparian areas, critical fish habitat, and coastal ecosystems. Additionally, using the Canadian restoration principles — effective, efficient, engaging, and equitable — this fund would support representative model projects that inspire and share good practices. Collaboration is foundational to achieving success, so this fund should be carried out in collaboration with AAFC and DFO as well as provincial and territorial governments, and non-governmental organisations.

To move from unsustainable habitat loss towards net habitat gains, we must take decisive actions to restore our lost and degraded habitats in the short- and medium-terms (particularly in highly impacted or fragile ecosystems), and protect those restored habitats and their ecological functions over the long-term. Further, we must simultaneously protect the residual base of natural habitat across the Canadian landscape (*see Delivering on Canada's land and ocean protection commitments, earlier in this document*). Both protection and management actions are essential to maximize the return on restoration investments and ensure that the associated climate and biodiversity benefits are additive and long-term.

Recommended Investment:
\$500 million over seven years,
 match funded 1:1 [ECCC, AAFC,
 DFO]

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Habitat Infrastructure Renewal Fund

The Green Budget Coalition recommends establishing a new **Habitat Infrastructure Renewal Fund** aimed at rebuilding or renewing existing conservation projects across the country. The Fund would seek to extend the lifespan and functionality of existing conservation assets on public and private lands across Canada in order to meet international and national criteria and standards for protected areas. A new Habitat Infrastructure Renewal Fund could contribute to achieving Canada's domestic and international environmental commitments such as Aichi-target 11 under the Convention on Biological Diversity (CBD) and Budget 2021's commitment of over \$3.3 billion for five years to deliver on Canada's target of protecting 25% of land and ocean by 2025, and 30% by 2030.

Many conservation areas in Canada were enhanced and secured prior to the establishment of more recent publicly funded conservation support mechanisms and are in decline, requiring immediate remedial infrastructure renewal investments. This is especially true for those areas employing intensively built infrastructure to support ecological functions and integrity, and which now require major renewal, replacement, conversion to more naturally functioning designs, scientific monitoring, and new management strategies to ensure their viability.

Without proper investment, these conservation areas will continue to decline and will be less likely to count towards our protected area commitments. Therefore, a new habitat infrastructure renewal fund is required to ensure that these areas are well-maintained, managed, and fully restored. This fund will ensure that the size and biodiversity of conservation areas is preserved, or renewed and restored.

Recommended Investment:
\$150 million over four years [ECCC]

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Mapping, researching and restoring Canada's blue carbon

With the world's longest coastline, Canada has a major opportunity to contribute to ocean carbon storage. Blue carbon—carbon stored in coastal ecosystems such as seagrass meadows and salt marshes—can play a significant role in the fight against climate change and biodiversity loss while supporting coastal communities.¹³¹ Blue carbon ecosystems can store carbon for thousands of years, provide valuable habitat for marine species, and strengthen the blue economy by supporting fisheries, recreation and tourism. However, when these ecosystems are degraded or destroyed, they can become sources of GHGs.¹³² Rising sea levels, warming ocean temperatures and invasive species threaten the resiliency and carbon sink potential of blue carbon habitats.

Canada has yet to build a national inventory of blue carbon ecosystems, hampering stewardship, protection and restoration efforts. Furthermore, critical research gaps remain¹³³ including assessing the potential and limitations of blue carbon as a nature-based solution.¹³⁴ This work should complement other efforts to protect and improve the management of marine habitats (see *Delivering on Canada's land and ocean protection commitments*) and should be led by DFO with support from PC, StatCan, and ECCC.

Recommended Investment: \$100 million over five years for the following [DFO]:

- Mapping and monitoring by coastal communities. Working with communities will provide local employment opportunities while informing Canada's blue carbon inventory and

supporting stewardship initiatives.

- Research by large-scale multidisciplinary collaborations and small-scale community groups to fill knowledge gaps on carbon storage, sources and amounts of GHG emissions, vulnerability of blue carbon ecosystems to climate change, and the long-term efficacy of restoration efforts.
- Restoration of blue carbon ecosystems and key coastal processes. This will increase ecosystem resilience and support ecosystem services.
- Creation of a sustainable funding mechanism for monitoring and stewardship of blue carbon ecosystems.
- \$5 million annually to develop inter-governmental mechanisms to strengthen the stewardship and protection of blue carbon ecosystems across jurisdictions.

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131 C. Ronnie Drever et al, "Natural climate solutions for Canada." *Science Advances* (2021). <https://www.science.org/doi/10.1126/sciadv.abd6034>

132 Linwood Pendleton et al, "Estimating Global "Blue Carbon" Emissions from Conversion and Degradation of Vegetated Coastal Ecosystems." *PLoS ONE* (2012). <https://doi.org/10.1371/journal.pone.0043542>

133 Peter I. Macreadie et al, "The future of Blue Carbon science." *Nature Communications* (2019). <https://doi.org/10.1038/s41467-019-11693-w>

134 Nathalie Seddon et al, "Understanding the value and limits of nature-based solutions to climate change and other global challenges." *Phil. Trans. R. Soc. B* (2020). <https://doi.org/10.1098/rstb.2019.0120>



Photo: Gatis Marinkovics



Freshwater, Oceans & Fisheries

Freshwater management

The Green Budget Coalition recommends that Canada make an historic investment of \$1.21 billion over five years in the Freshwater Action Plan to improve water quality, manage water quantity, and protect and restore aquatic biodiversity through watershed and in-water actions. Investments should be targeted to actions that the science indicates are most likely to improve the state of the aquatic environment and that have been prioritized in collaboration with Indigenous Peoples and through consultation with stakeholders.

The management and stewardship of Canada's freshwater environments is one of the great challenges of our time. Pressures on freshwater environments are mounting and compounding due to growing populations, increasing demand for food and energy, expanded natural resource extraction, growing urban areas, and the changes in precipitation and temperature resulting from climate change.

Stewardship and management of freshwater to sustain biodiversity and people into the future must address three interconnected dimensions: water quantity, water quality, and aquatic habitat. Due to shared jurisdiction and multiple overlapping interests, the management of freshwater environments requires a shared responsibility approach between all levels of government that sets out a holistic management framework. This shared, pan-Canadian approach needs to strengthen cooperative federalism, advance reconciliation, and cultivate a watershed approach.

As one step in developing a renewed pan-Canadian approach to freshwater management, the Canada Water Agency should be stood-up as a separate Government of Canada Agency reporting to a Minister like Parks Canada or the Public Health Agency of Canada to carry out its stated objectives of ensuring federal policies and programs promote effective management and protection of freshwater resources and ecosystems in Canada for 21st century challenges and beyond, including adapting to climate change.

The federal government plays a direct role in the drinking water and wastewater treatment services

for First Nations. As part of the government's responsibility for freshwater management, it must ensure that First Nations have access to safe and effective drinking water and wastewater systems. This includes upholding Canada's commitment to repeal the Safe Drinking Water for First Nations Act, and to develop and introduce new replacement legislation in collaboration with First Nations by the end of 2022.

Total Recommended Investment: \$1.21 billion over five years, plus any additional funds required for Indigenous peoples and governments to meaningfully engage in freshwater protection and management.

1. Funding for ECCC to renew the **1987 Federal Water Policy** in collaboration with the provinces, territories, and Indigenous peoples. The renewed policy would guide renewal of the Canada Water Act and establish a framework for collaboration on the management of water quality, water quantity, and aquatic habitat. **\$5 million over two years** [ECCC]
2. Capacity for Indigenous peoples to engage in watershed planning, integrated planning for aquatic habitat protection, and water governance, building on models such as DFO's Aboriginal Aquatic Resource and Oceans Management program. *Necessary funding to be determined in collaboration with Indigenous peoples and governments. \$250 million over five years as an estimated starting point* [ECCC, ISC]
3. Renew the **Freshwater Action Plan** to improve water quality, manage water quantity, and protect aquatic biodiversity through watershed and in-water actions starting with the Great Lakes-St. Lawrence River System, Lake Simcoe, and the Lake Winnipeg Basin. Investments



should be targeted to actions that the science indicates are most likely to improve the state of the aquatic environment and that have been prioritized in collaboration with Indigenous peoples and through consultation with stakeholders.

- a. **\$500 million over five years** in new investments in the Great Lakes and St. Lawrence River to address nutrient loading and reduce bacteriological contamination from sewer overflows by implementing actions prioritised and costed in the Great Lakes St. Lawrence Collaborative's Action Plan 2020-2030.¹³⁵ Together with additional investments in Fisheries and Oceans Canada's **Aquatic Ecosystems Restoration Fund** proposed in the fish habitat protection recommendation (*next in this document*) as well as investments in remediation of the Areas of Concern, this would create a Canadian program that responds to the \$2.1 billion USD invested by the United States from 2022 to 2026 in the Great Lakes Restoration Initiative. [ECCC]
- b. **\$150 million over five years** to reduce nutrient loading from the Red River and South Saskatchewan River Basins to Lake Winnipeg. [ECCC]

- c. **\$30 million over five years** to continue efforts to protect and restore Lake Simcoe and its watershed. [ECCC]
3. Expand the **Freshwater Action Plan** to include other priority watersheds.
 - a. **\$75 million over five years** to build on the BC Watershed Security Fund to address water quantity and quality challenges and improve freshwater environments for Pacific salmon and steelhead in the Fraser River Basin and other priority watersheds (coordinate this funding with the Pacific Salmon Strategy Initiative). [ECCC]
 - b. **\$200 million over five years** to develop action plans and begin implementation in other priority watersheds including the St. John River, Lake of the Woods, the Mackenzie River Basin, and others. [ECCC]

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¹³⁵ The Great Lakes and St. Lawrence Collaborative, "Action Plan to Protect the Great Lakes and St. Lawrence 2020-2030: Implementing Innovations in Science and in Governance" (June 2020). <https://westbrookpa.com/documents/glsllcollab/reports/action-plan/Great-Lakes-and-St-Lawrence-Integrated-Report-EN.pdf>



Fish habitat protection

Renewed protection of fish habitat under the 2019 *Fisheries Act* requires a complementary renewal of the Fish and Fish Habitat Protection Program to restore past harm to fish habitat and prevent and meaningfully compensate for future harm.

The Green Budget Coalition recommends that Canada invest in **fish habitat protection, restoration, and integrated planning** to support fisheries productivity, help restore declining fish populations, begin reversing the legacy of harm to fish habitat from past development, and generate community economic benefits. Canada should expand existing funding programs and speed up project implementation. Aquatic ecosystem and fish habitat restoration projects can create 13-17 jobs per million dollars invested and, based on evidence from the U.S. Great Lakes Restoration Initiative, create a return on investment of 300%.¹³⁶

To restore abundance and support the resilience of Canada’s fisheries, the Green Budget Coalition recommends investing in the following components:

Total Recommended Investment: \$324 million over five years, then \$2 million per year, ongoing

1. Status of Fish Habitat. Implementation of the fish habitat protection provisions of the *Fisheries Act* requires the ability to assess change over time and review authorizations for HADD¹³⁷ relative to habitat status and cumulative effects. Funding is required for DFO to develop and implement a fish habitat status assessment and reporting program in partnership with provinces, territories and Indigenous governments.

\$15 million over three years to complete the first status assessment, **then \$2 million per year, ongoing** to maintain the status assessment as a tool to guide DFO fish habitat

136 Great Lakes Commission, “Assessing the Investment: The Economic Impact of the Great Lakes Restoration Initiative” (2018). <https://www.glc.org/wp-content/uploads/GLRI-Project-Summary-Report-20180924.pdf>
P.E.T. Edwards et al. “Investing in nature: Restoring coastal habitat blue infrastructure and green job creation.” *Marine Policy* (2013). <https://doi.org/10.1016/j.marpol.2012.05.020>

137 HADD refers to “the harmful alteration, disruption or destruction of fish habitat”.

regulatory decisions and restoration plans. [DFO]

2. Integrated Approach to Fish Habitat. The renewed Protection Program must address land use in the surrounding watershed or coastal zone, habitat forming processes, and physical in-water habitat if it is to effectively conserve and protect fish and fish habitat. Jurisdiction over these three dimensions of protecting fish habitat is shared and their relative importance differs between species and areas of the country. As a result, the protection of fish habitat requires a strategic, integrated approach that supports a shared responsibility model for the conservation of fish and fish habitat. A pan-Canadian approach is needed that sets out the framework for developing shared protection and restoration objectives to guide regulatory decisions and to establish and support program delivery partnerships with other governments, including Indigenous governments, as well as non-governmental organizations.

\$30 million over three years to work with provinces, territories, and Indigenous governments to develop a strategy and framework for an integrated, pan-Canadian approach to the protection of fish habitat. [DFO]

3. Expand the Aquatic Ecosystems Restoration Fund. To advance reconciliation with Indigenous peoples and support provincial and territorial efforts to sustain abundant fish populations the Green Budget Coalition recommends that the government expand the Aquatic Ecosystems Restoration Fund (AERF) to create an inland component of the Fund that is coordinated with the **Freshwater Action Plan** to restore fish habitat for focal species in the same priority watersheds. The funding program should take a collaborative and capacity building approach using existing arms length organizations such as the Atlantic Salmon Conservation Foundation, Pacific Salmon Foundation, Great Lakes Fishery Commission, and Aquatic Habitat Canada to

RECOMMENDATIONS FOR BUDGET 2023

help administer and deliver the program. The expanded AERF should include funding to:

- a. Build and sustain partnerships to restore degraded or destroyed fish habitat in priority watersheds and for priority species;
- b. Support the development and implementation of regional habitat restoration plans;
- c. Increase the capacity of Indigenous and non-government organisations to deliver high quality fish habitat restoration projects;
- d. Restore and improve fish habitat through cost shared projects identified by the regional restoration plans; and
- e. Establish a fish passage program that re-establishes habitat connectivity for focal species in the priority watersheds.

\$250 million over five years [DFO]

4. **Ecologically Significant Areas.** The designation of ecologically significant areas (ESA) provides a powerful new conservation tool to protect areas of sensitive, highly productive, rare or unique fish habitat. The framework for the identification, establishment and management of these areas in marine and freshwater environments needs to be developed and work to designate ESAs across Canada needs to begin.

\$25 million over five years for the development of an ESA framework and designation of 5 to 10 ESAs in each DFO region. [DFO]

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Photo: Nick Hawkins



Safeguarding the future of Canada's fisheries

Fisheries are of vital importance to Indigenous peoples and coastal economies. In some regions, fisheries are the single largest source of employment and are integral to the cultural and social fabric of the area. In 2016, commercial fisheries contributed approximately \$3 billion¹³⁸ to Canada's GDP and provided over 26,000 direct and indirect jobs across the country.

The continued contribution of fisheries to the Canadian economy and wellbeing of coastal communities depends on healthy and abundant fish stocks. However, many commercial stocks across the country are in crisis. Only 30.4% of fish stocks can confidently be considered healthy, while 16% are categorized as having "cautious" health status and 17% as "critical".¹³⁹ Underinvestment is also hindering the advancement of the Nation-to-Nation relationships required to further reconciliation and implement Indigenous rights. As of July 2021, only 38% of the key aspects of implementing the Sustainable Fisheries Framework ("SFF") were completed, 14% were in progress, 40% were delayed and the remaining 8% were suspended.¹⁴⁰

It is therefore paramount that the federal government invests in the future of Canada's wild fisheries. This means investing in four key areas:

1. Fully funding the implementation of the Sustainable Fisheries Framework

In order to halt the decline of many of Canada's fisheries and put them on a path to sustainability, the full implementation of the SFF and stock rebuilding provisions under the *Fisheries Act* are paramount. These important policy and legislative milestones have the potential to restore fish, ecosystems and thriving fisheries if fully implemented. However,

138 Fisheries and Oceans Canada, "Blue Economy Strategy Engagement Paper." <https://www.dfo-mpo.gc.ca/about-notre-sujet/blue-economy-economie-bleue/engagement-paper-document-mobilisation/part4-eng.html#commercial>

139 Oceana Canada, "Canada is failing fisheries: Fewer than one-third considered healthy" (November 16, 2021). <https://www.globenewswire.com/news-release/2021/11/16/2335279/0/en/Canada-is-failing-fisheries-Fewer-than-one-third-considered-healthy.html>

140 D.W. Archibald et al, "The implementation gap in Canadian fishery policy: Fisheries rebuilding and sustainability at risk." *Marine Policy*, (2021). <https://doi.org/10.1016/j.marpol.2021.104490>

despite significant investments and accelerated progress, many components are still lagging.

Developing and updating Integrated Fisheries Management Plans (IFMPs), reference points, and harvest control rules that apply the precautionary approach across Canada's commercial fisheries is a critical component of the SFF that has yet to be completed. Of the 33 fish stocks assessed to be in the "critical zone", only seven have rebuilding plans required under the *Fisheries Act*. Seventy-one stocks have been identified as having unknown status—a critical assessment gap that needs to be addressed. Taken together, these initiatives could address some fundamental shortcomings in Canada's fisheries management regime and contribute towards meeting international commitments for 100% sustainably managed oceans by 2025. However, substantial and sustained resources (both people and financial) will be required to build on the progress already made.

Recommended Investment:
\$100 million over five years for the continued development and implementation of SFF management objectives and *Fisheries Act* rebuilding requirements. [DFO]

2. Investing in a modern fisheries catch monitoring and observer program fit for the 21st century

To achieve Canada's sustainable fisheries management agenda, a robust onboard and dockside monitoring program is critical. Current approaches to scientific observer programs, catch data collection and compliance monitoring systems are inconsistent across the country. There is a lack of research support to ascertain needed coverage levels to achieve precision and sufficiency of information on all catch including retained, discarded, and interactions with endangered, threatened, and protected species across Canada's fisheries.

The Department's National Catch Monitoring and National Bycatch Policies, and increased involvement in discussions on electronic monitoring standards



at Regional Fisheries Management Organizations (RFMOs) are encouraging and could also advance work on domestic policy standards.

However, new investment in an up-to-date monitoring and observer system are needed, including regulator-led standards for human observer programs, and electronic and video monitoring systems. Government reinvestment in overhauling, standardizing, and supporting implementation of these programs needs to be considered. Overhauling observer programs will also create meaningful career opportunities, particularly within coastal communities, and support local businesses that are designing cutting edge systems for our ocean economy.

Recommended Investment:
\$50 million over three years to improve observer coverage, provide standards and targets, develop electronic monitoring standards, and implement promised expansion of use under the National Catch Monitoring Program. [DFO]

3. Implementing a robust boat-to-plate traceability program for seafood products consumed in Canada

The government's commitment to a boat-to-plate traceability program is a major step towards the long-term sustainability, competitiveness, and viability of Canada's seafood sector as well as being critical to helping combat illegal, unreported, and unregulated (IUU) and labour rights violations in the global supply chain.

Canada's major trade partners have imposed stringent import requirements on Canadian products to meet their labelling and sustainability regulations with more countries and market requirements coming into force every year, such as Japan's new import rules to deter IUU fishing. Our current "one-up, one-down" traceability regulations fall short and have made it difficult for industry and Canada to meet trade data requirements. We also continue to have much lower requirements for domestic labelling as well as for seafood being imported into our market.

To keep up with global best practice, to protect



Canadian consumers, and to level the playing field for Canadian producers, seafood companies, retailers, and exporters, investment is needed to develop and implement a full-chain traceability program from point of capture for all domestically produced and imported seafood. We recommend establishing a dedicated interdepartmental working group led by DFO and the Canadian Food Inspection Agency (CFIA) to ensure interoperability and national leadership throughout the development of the system.

Recommended Investment:
\$100 million over the next five years for the needed capacity to develop and implement traceability system and standards, data management, industry training, and implementation support. [DFO, CFIA]

4. Investing in the transition to ecosystem-based fisheries management to restore abundance and ensure resilience and adaptivity of Canada's fisheries and management systems in the face of climate change

Current single species management of fisheries often ignores important ecosystem considerations such as the impact on non-target species, cumulative impact on habitat, food availability for marine predators, trade-offs between different fisheries, and the shifting environmental and climate conditions that affect the health of fish stocks. Ecosystem based management (EFM) approaches are needed to ensure more adaptive, resilient fisheries that respond to changing environmental, oceanographic and social conditions.

Since the establishment of the National Working Group to advance and operationalize ecosystem approaches to fisheries assessments and management some important initial steps have been taken. However, the work remains underfunded and limited capacity is stifling critical progress. Investment is needed to develop an overarching vision that better integrates current science initiatives to create



practical and concrete tools for implementing the broad vision of EFM for Canadian fisheries.

Recommended Investment:
\$75 million over five years to advance ecosystem-based fisheries management application. [DFO]

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Photo: Nick Hawkins

Conserving Canada's birds

Beloved by Canadians, Canada's 451 native bird species keep forests and ecosystems healthy through pest control, pollination, seed dispersal and nutrient cycling. However, North America has lost one third of its wild birds since 1970, mainly due to human-related actions. Keeping healthy populations of migratory birds is a federal responsibility through the *Migratory Bird Convention Act* (1917, 1994). It is time to invest in birds.

The Green Budget Coalition recommends targeted investments to end declines and restore bird populations to healthy levels.

**Total Recommended Investment:
\$18 million over four years [ECCC –
Canadian Wildlife Service]:**

- Mitigate human-related bird mortality in urban, agricultural and other human-altered landscapes in Canada by funding coordinated efforts and programs that promote individual

and collective actions and policies at the community and municipal levels, restoring habitat integrity, recovering threatened species, and keeping common birds common – **\$8 million over four years;**

- Maintain strong science programs to inform conservation efforts – **\$8 million over four years;**
- Support Indigenous-led conservation and management of migratory bird habitat domestically and internationally – **\$2 million over four years;** and
- Support protection of wintering habitat for Canada's migratory birds in Latin America— see *Canada's international commitments on climate and biodiversity, later in this document.*

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Photo: Jeremy Hynes



Pan-Canadian Approach to Wildlife Health

The COVID-19 crisis is a devastating example of the risks we take as a society when we fail to actively prevent the emergence and spread of wildlife disease. The virus is currently spreading among Canadian white-tailed deer, creating the need to track and monitor the virus in the wild. At the same time, cases of highly pathogenic avian influenza are on the rise, decimating domestic poultry farms and killing individuals of many species of wild bird. These and other health challenges have highlighted how Canada's federal and provincial programs to detect and respond to wildlife health threats lack sufficient capacity and coordination.

Internationally, Canada supported the G7 Joint Statement in February 2021 and the Rome Declaration of May 2021 calling for strengthened implementation of the One Health approach to the prevention and control of diseases that can transfer between animals and humans. Domestically, however, Canada is ill-prepared to deal with existing and emerging threats. The current approach to wildlife health is under-resourced and reactive. Consequently, problems are rarely addressed in their early stages when response options are greatest. Demands for wildlife health services and expertise are growing due to the need for assurances for trading partners, the need to ensure a safe food source for Indigenous peoples and other Canadians who rely on wildlife for sustenance and livelihoods, and the increase in emerging diseases that threaten public health and agriculture.

To address these challenges, the Green Budget Coalition recommends the federal government fund the Pan-Canadian Approach to Wildlife Health.¹⁴¹

Recommended Investment: \$120 million over five years

- **\$45 million** for the Canadian Wildlife Health Cooperative and other non-government coordinating bodies, to build professional capacity within Canada, coordinate monitoring and surveillance, and provide access to diagnostic, data management and synthesis

¹⁴¹ Canadian Wildlife Health Cooperative, "A Pan-Canadian Approach to Wildlife Health" (June 2018). http://www.cwhc-rclf.ca/docs/technical_reports/EN_PanCanadian%20Approach%20to%20Wildlife%20Health%20Final.pdf



of information that is accessible across the country [ECCC];

- **\$20 million** for application-based program funding to support non-government partners to deliver wildlife health programs including a Northern Wildlife Health Program [ECCC, PHAC];
- **\$45 million** to build federal/provincial/territorial government capacity to implement wildlife health programs that collaborate with livestock and public health sector partners [ECCC, CFIA]; and
- **\$10 million** for governance, targeted Indigenous hunter communication tools, professional exchange programs, research fellowships, and State of Wildlife Health reports. [ECCC]

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CLIMATE ADAPTATION

National Adaptation Strategy – funding implementation

People in Canada are witnessing and experiencing devastating impacts of climate change and there has been much emphasis on the urgency for an adaptation action plan. The National Adaptation

Strategy (NAS) is due to be completed by the end of 2022. We hope that it will establish a clear framework for action to achieve climate resilience. The NAS Discussion Paper, published in May 2022, touched on multiple dimensions of climate adaptation needs, showing that adaptation and resilience are cross-cutting issues. This NAS paper focuses on: Health and Wellbeing; Resilient Natural and Built Infrastructure; Thriving Natural Environment; Strong and Resilient Economy; and Disaster Resilience and Security.

Secure, long-term funding will be essential to ensure that the NAS is effective at addressing this multifaceted challenge. In addition to GBC recommended top-ups of existing funds relevant to climate adaptation, we call for the implementation of a new, dedicated adaptation fund to advance key action priorities in the National Adaptation Strategy.

Based on the NAS Discussion Paper, and our knowledge of climate mitigation and adaptation needs, the Green Budget Coalition is calling for investment in five priority areas:



Photo: Casey Horner



- Natural and built infrastructure
 - Support for local natural infrastructure that will mitigate impacts of floods and urban heat island effects;
 - See *Natural Infrastructure Fund top-up* recommendation;
- Protection of nature
 - Expand funding for the protection, restoration and improved management of ecosystems most vulnerable to climate change in line with Canada’s commitment to halt and reverse nature loss;
 - Invest in management practices and interventions required to maintain the viability of ecosystem services provided by natural areas and fish and wildlife populations;
 - See recommendations on: *Permanent funding for land, freshwater and ocean protection and stewardship; Habitat Restoration Fund; and Habitat Infrastructure Renewal Fund;*
- Resilience of vulnerable communities
 - Invest in protecting people and communities that are particularly susceptible to the effects of climate change and those in vulnerable situations (e.g., Indigenous communities, elderly, low-income households);
- Governance and capacity building
 - Municipal-level funding to support communities impacted by extreme weather events;
 - Support multi-level (i.e., provincial, regional and local government) as well as cross-departmental government coordination to implement NAS action plans and mainstream adaptation into all future investment planning;
 - Help the health sector understand, prepare for, and respond to the impacts of climate change through programs like HealthADAPT;
 - See *Creating a permanent municipal climate action fund* recommendation;
- Data and mapping
 - Information tools (e.g., predictive mapping tools for fires and floods) that will better equip communities to prepare for and avoid costly

Photo: Juan Manuel Sanchez



damage from extreme weather events such as floods, drought, fires, and heat waves;

- Climate vulnerability assessments of existing infrastructure (e.g., roads, bridges, hospitals, transmissions lines) and the development of action plans to improve resiliency;
- See *Supporting evidence-based decision making: improving environmental science & data* recommendation, later in this document.

Recommendation:

Prepare a budget and/or create a dedicated fund for NAS implementation and action that could support key priorities that will be outlined in the NAS. [ECCC, INFC, NRCan]

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Natural Infrastructure Fund top-up

Natural infrastructure (NI) can protect the natural environment, support healthy and resilient communities, provide economic benefits, and improve access to nature. NI includes projects that use nature to meet infrastructure needs, such as flood control, water filtration, drought mitigation and temperature control. The Green Budget Coalition welcomed the creation of Infrastructure Canada's Natural Infrastructure Fund in Budget 2021. Since then, the initial \$200 million fund has been largely allocated toward select major cities in Canada who have developed NI strategies, such as Toronto and Vancouver.

The Green Budget Coalition recommends additional investments in this Fund in Budget 2023 to enable more communities, particularly small- and medium-sized municipalities, to access funding for NI projects. The forthcoming National Infrastructure Assessment will identify needs and priorities in the built environment and support evidence-based long-term planning toward a resilient and net-zero emissions future. Recommendations for the National Infrastructure Assessment highlight the many co-benefits of greater use of NI. With additional funding in Budget 2023, the Natural Infrastructure Fund will be able to leverage work emerging from the National

Infrastructure Assessment as well as the National Adaptation Strategy to support strategic investments.

The Canadian Infrastructure Bank (CIB) can also play an important role by providing guidance to infrastructure proponents regarding how to integrate NI. Giving funding preference to projects that combine natural and built infrastructure would expand the capacity to plan and implement NI. CIB financing would complement the Natural Infrastructure Fund (which is limited to municipally-owned lands) and could fund capital and operating costs of NI on non-municipal lands.

Recommended Investment:
An additional \$400 million over three years for the Natural Infrastructure Fund and prioritized funding for infrastructure projects that integrate natural infrastructure into design of built infrastructure.
[INFC]

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Photo: Fabian Jones

ENVIRONMENTAL JUSTICE

For the Green Budget Coalition's feature recommendation for environmental justice, please see earlier in this document for:

- Institutionalizing environmental justice.

Chemicals Management Plan top-up: protecting all Canadians from toxic chemicals and pollution

The science is clear: Canada needs to do more to protect people in vulnerable situations from pollution and toxics. The House of Commons Environment and Sustainable Development Committee's 2016-17 review of the *Canadian Environmental Protection Act (CEPA)* implementation put a spotlight on these issues, but departments lack resources to act on the committee's recommendations and proposed legislative reforms.

Bill S-5¹⁴² proposes to modernize CEPA to better protect people in vulnerable situations and those who are particularly susceptible to harm from toxics and pollution. The bill would also recognize for the first time in federal law the right to a healthy environment. **The Green Budget Coalition recommends that Budget 2023 invest in building science and policy capacity for these important new approaches.**

Bill S-5 defines *vulnerable population* as “a group

¹⁴² BILL S-5 An Act to amend the *Canadian Environmental Protection Act, 1999*, to make related amendments to the *Food and Drugs Act* and to repeal the *Perfluorooctane Sulfonate Virtual Elimination Act*. <https://www.parl.ca/legisinfo/en/bill/44-1/s-5>



Photo: Danilo Alvesd

RECOMMENDATIONS FOR BUDGET 2023

of individuals within the Canadian population who, due to greater susceptibility or greater exposure, may be at an increased risk of experiencing adverse health effects from exposure to substances.”

Budget 2021 provided \$476.7 million over three years to renew the Chemicals Management Plan (CMP). While the Green Budget Coalition welcomed this investment to enable basic functions to continue, additional resources are needed in 2023 for:

- Identifying and prioritizing prohibition of carcinogens, mutagens, reproductive toxins and other chemicals with a high level of concern;
- Cumulative effects and class assessment;
- New mechanisms to monitor and manage exposure to toxic chemicals in consumer products, including products imported from countries that do not rigorously regulate chemical inputs;

Photo: Chris Leboutillier



- A full review of measures required to protect Indigenous peoples’ rights and nature from the risks of genetic engineering of animals; and
- Addressing data gaps to identify and protect populations that are more vulnerable to the harmful effects of pollution, including women and children, including:
 - Understanding and reducing risks to Indigenous communities; and
 - Developing and applying a framework to implement the right to a healthy environment, including consideration of environmental justice and the principle of non-regression, as well as data collection.

The Green Budget Coalition also recommends moving the CMP budget to A-base to build and maintain scientific capacity for this important, legally mandated work. While the program was focused on assessing an initial batch of 4,300 “high priority” substances identified through a screening process a decade ago, Health Canada and ECCC must retain capacity to assess new substances and update assessments in light of new science, and to develop and implement risk management measures for the increasing number of substances assessed as toxic under CEPA. The ongoing task of chemicals management requires permanent capacity.

**Recommended Investment:
\$200 million in 2023 to top-up
the Chemicals Management Plan
budget. [ECCC, HC]**

*Recommendation endorsed by the Canadian Association of Physicians for the Environment.*¹⁴³

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Youth employment programs to build a more equitable and inclusive future for conservation

Historically, and to this day, the conservation and environmental non-profit sector has lacked diversity. The lack of racial representation in the sector is not only an unjust systemic barrier for Black, Indigenous and People of Colour, it makes environmental and conservation work less effective and less rich in consequence. Various efforts are being made in the sector to address this structural inequity. An important component is engaging youth facing barriers through wage subsidy programs in order to provide information, skills, work experience, peer support, and networks. These wage subsidy programs remove systemic barriers and provide opportunities for racialized and marginalized youth to gain the working skills necessary for a productive career in the nature sector and also serve to build public awareness of race-related barriers to nature in Canada and the need for anti-racism work in our sector.

The integrated outcomes that can result from funding youth employment programs include local community and economic benefits, ecosystem wellbeing, the development of youth career paths, mental and physical health benefits, and growing a sense of inclusion and belonging. Last year, funding from the Youth Employment and Skills Strategy (YESS) through Parks Canada supported hundreds

of youth with employment in the nature sector, over 70% of whom were youth facing barriers.

The Green Budget Coalition recommends an increased investment in the Youth Employment and Skills Strategy (YESS) to work with the community on youth employment programs that ensure marginalized youth have the support they need to start careers in the nature and conservation sector, **including the option for longer six to twelve month work terms.**

Recommended Investment:
\$125 million over five years to support the employment of over 5,000 young people starting their careers in the nature and environmental sector. [ESDC with PC and ECCC]

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Photo: Christina Wocnittechat

CROSS-CUTTING RECOMMENDATIONS

Canada's international commitments on climate and biodiversity

Halting and reversing global biodiversity loss has become a stated goal but this will only be achievable globally with much greater support for developing countries, who hold most of the world's biodiversity. A study on conservation finance called for a doubling of biodiversity assistance to developing countries.¹⁴⁴

Canada and other developed countries are active parties to resource exploitation in developing countries as consumers and investors. And the financial and economic benefits of protecting 30% of the world's natural ecosystems exceeds the costs by a factor of at least 5:1.¹⁴⁵

Canada has shown leadership with its commitment to spend \$5.3 billion over five years to help

developing countries with climate adaptation and mitigation. Will the government show this same leadership on biodiversity? Canada's earmarking of 20% of its climate finance for nature-based

144 A. Deutz et al., "Financing Nature: Closing the global biodiversity financing gap" (2020). The Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability. https://www.paulsoninstitute.org/wp-content/uploads/2020/10/FINANCING-NATURE_Full-Report_Final-with-endorsements_101420.pdf

145 Waldron, A. et al., "Protecting 30% of the planet for nature: costs, benefits and economic implications" (2022). <https://www.campaignfornature.org/protecting-30-of-the-planet-for-nature-economic-analysis>



Photo: Manny Becerra



solutions that benefit biodiversity is laudatory. This, along with Canada’s support for the Global Environment Facility, goes some way toward meeting our responsibility. But Canada needs to do much more, especially since some important conservation needs are not addressed well through nature-based solutions. These include the problems of illegal wildlife trade, invasive species, lack of funding for protected areas and destructive fishing practices.

When Parties to the UN Convention on Biological Diversity meet in Montreal in December 2022, Canada should emerge as a leader along with donor countries (Norway, France, Sweden, Germany) in combined domestic and international biodiversity spending in relation to Gross National Income. This would mean annual spending of \$2.1 billion, with \$600 million in international biodiversity aid, on top of Canada’s domestic spending of about \$1.5 billion.¹⁴⁶

How funds are applied is important. Preventing further loss of tropical ecosystems is vital for biodiversity and for climate adaptation and mitigation. Canada’s migratory birds are being impacted by habitat loss at their wintering areas and migration stopovers in Latin America and the Caribbean, and that can be addressed. Conservation

organizations that partner with Indigenous peoples—key conservation allies in developing countries—are achieving conservation gains on a large geographic scale. Similarly, gains can be made in empowering local communities for forest and fisheries management.

In addition to ramping up international biodiversity spending, Canada also has an obligation to increase international climate finance to developing countries. The Green Budget Coalition maintains that an annual contribution of \$3.5 billion represents Canada’s fair share of the \$100 billion commitment from industrial countries, based on our responsibility for cumulative global emissions.¹⁴⁷

Recommended Investments:

- **\$2.4 billion over four years in international assistance for biodiversity** [GAC, ECCC]
- **\$14 billion over four years for international climate finance** [GAC, ECCC]

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146 International Conservation Fund of Canada, “Tropical nature needs us: An expanded role for Canada in stemming global biodiversity loss” (2021). Chester, Nova Scotia: ICFC. 33 p. https://icfcanada.org/docs/ICFC_report_Canada_biodiversity_aid.pdf

147 International Conservation Fund of Canada, “Canada’s Role in International Climate Finance” (2020). https://www.icfcanada.org/files/Brief_Intl_climate_finance_by_ICFC_2020-08-15.pdf



Photo: Jon Eckert

Supporting evidence-based decision making: improving environmental science & data

Use of accurate geospatial information and supporting science to meet Canada's climate and biodiversity commitments is urgent and fundamental to our understanding of ecosystem function and services as well as our ability to assess landscape-based conservation policy and programs. This includes reliable baseline information and evidence-based decision-making. Public investments in science and evaluation have lagged far behind investments in direct habitat programs. Coordinated efforts to harness and fund partnership-based research between government and external organizations have also lagged. For example, much of the data within Canada's open Federal Geospatial Data Platform is either incomplete, outdated, or not publicly accessible. In instances where the data is made publicly available, they are often fragmented and spread across multiple data platforms and governments.

It is vital for the Government of Canada to take meaningful steps to resource completing and updating its baseline geospatial data layers, and to implement a coordinated ongoing habitat conversion monitoring effort across the Canadian landscape to effectively address Canada's biodiversity crisis. Building on new federal efforts to expand the use of restored habitats to mitigate the impacts of climate change, species and habitat loss, the Green Budget Coalition recommends that the federal government make targeted investments across the following geospatial data enhancement streams:

- a. Conduct an audit and inventory of existing geospatial datasets and identify gaps across the core federal departments, including AAFC, NRCan, ECCC, PS, StatCan, and DFO, as well as provincial and other relevant levels of government, to determine what geospatial data is available for aggregated use and publication.
- b. Update geographic and landscape feature data to establish national inventories for Canada's wetlands (ECCC), grasslands (AAFC), critical habitat (ECCC, DFO) and forests (NRCan). Major investments are needed to complete and dramatically accelerate the pace of activity in

support of the Canadian National Wetland Inventory. Currently, only 25% of the Canadian Territory has been mapped. Other national inventories also require major investments. Data from these inventories are critical to make informed investments in habitat, including species at risk recovery, to measure biodiversity enhancement and increases in carbon sequestration.

Recommended Investment: **\$250 million over five years for the following inventories:**

- **\$100 million** for the Canadian National Wetland Inventory [ECCC]
- **\$50 million** for the National Grasslands Inventory [AAFC]
- **\$75 million** for National Critical Habitat Inventory [ECCC, DFO]
- **\$25 million** for National Forest Inventory [NRCan]

See also Establishing a Canadian centre for decision-useful climate information, earlier in this document.

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Upgrading enforcement of environmental laws

ECCC is responsible for enforcing federal pollution prevention, wildlife protection and conservation laws. The Green Budget Coalition welcomed new resources provided to ECCC for environmental enforcement in 2021-22 (\$46 million over five years, with \$9.2 million ongoing) and recommends additional investment in Budget 2023.

The illegal export of Canadian plastic waste to countries in the Global South and devastating impacts on communities is but one example of the need for increased enforcement.

The new funding will enable the department to begin work to modernize its compliance promotion and enforcement capacities and methods, including building computer forensics infrastructure, training officers in investigative approaches, and employing 24 new officers to gather baseline data required to complete development of a new risk-based approach. Additional investment is needed to fully implement this new approach and ensure capacity to enforce new regulations. ECCC's forward regulatory agenda

indicates planned work on many regulations, including new measures to reduce air pollution and greenhouse gases, control toxic chemicals, ban problematic plastics, and expand protected areas. These important initiatives will only achieve their intended environmental outcomes if compliance is assured.

Recommended Investment:
\$40 million additional annual investment, ongoing, to support modernization of environmental enforcement and expand capacity. [ECCC]

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Photo: Suchakra Sharma

RECOMMENDATIONS FOR BUDGET 2023

Appendix 1

SUMMARY TABLE OF RECOMMENDATIONS' RECOMMENDED INVESTMENTS

millions of dollars

Recommendation <i>Subrecommendation</i>	Likely Lead Department(s)	2023-24	2024-25	2025-26	2026-27	2027-28	ongoing	(end-year)
FEATURE RECOMMENDATIONS								
ADVANCING A ZERO-EMISSIONS ELECTRICITY GRID BASED ON RENEWABLES								
Electricity sector transformation								
Clean electricity infrastructure deployment	NRCan	2,400	2,400	2,400	2,400	2,400		
Clean electricity for Indigenous & low-income communities	NRCan	960	960	960	960	960		
Tax credit for investment in clean energy	FIN, NRCan	600	600	600	600	600		
Best practices in clean electricity governance								
Enhance regional cooperation between provinces	NRCan	10	10	10	10	10		
Consultative process	NRCan	5						
Independent centre of excellence	NRCan	1	1	1	1	1		
Distributed energy projects								
New stream to NRCan Smart Renewables	NRCan	20	20	20	20	20		
Tax credit for personal investment	NRCan	20	20	20	20	20		
Procure clean electricity for signature government buildings	NRCan	10	10	10	10	10		
Renewables in remote communities								
Programs building Indigenous leadership and partnership	NRCan, CIRNAC, ISC, INFC, ECCC	800						
CANADA'S RENOVATION WAVE								
Deep retrofits for residential buildings	CMHC, NRCan, CIB, HC	10,000	10,000	10,000	10,000	10,000	10,000	(2032-33)
No-cost deep retrofits for low-income households	CMHC, HC	2,000	2,000	2,000	2,000	2,000	2,000	(2032-33)
Retrofits for new Indigenous housing projects	ISC, CMHC, CIB	540	540	540	540	540	540	(2032-33)
Skill development, capacity & recruitment	NRCan, ISED, HC	300	300	300	300	300	300	(2032-33)
Scale up Greener Neighbourhood Program	NRCan, ISED	100	100	100	100	100	100	(2032-33)
DELIVERING ON CANADA'S LAND AND OCEAN PROTECTION COMMITMENTS								
Indigenous-led conservation								
Supporting recommendations from Indigenous organizations and governments.								
Permanent funding for land, freshwater and ocean stewardship								
Terrestrial protected areas	ECCC, PC	750	860	960	1,070	1,180		Increasing to \$1.5 billion/year in 2030-31 and then ongoing
Marine protected areas	DFO, ECCC, PC	650	740	840	930	1,020		Increasing to \$1.3 billion/year in 2030-31 and then ongoing
Ecological connectivity								
Nation-wide Connectivity Fund	ECCC	167	167	166				
MPA network planning	DFO, PC, ECCC	32	32	32	32	32		
Collaborative approaches to conservation	ECCC	75	75	75	75	75	75	(2030-2031)
ADVANCING SUSTAINABLE AGRICULTURE								
National Land Use Strategy	AAFC, NRCan, ECCC	9	8	8				
Agricultural Habitat Incentive Programs								
National Perennial Forage Conversion Program	AAFC	100	100	100	100	100		
Economic and environmental return of marginal land	AAFC	100	100	100	100	100		
Avoided conversion of native and tame grasslands	AAFC	200	200	200	200	200		
Pollinators	AAFC, ECCC	5	5	5	5	5		
Data/Carbon Accounting	AAFC, ECCC, StatCan	17	17	16	2	2	2	ongoing
Quantifying Economic, Environmental, and Social Benefits	AAFC	20	20	20	20	20	20	ongoing
Tools, Tech Transfer, and Technical Assistance	AAFC	100	100	100	100	100	100	ongoing
Soil Health	AAFC	1	2	3				
Market-based Systems for Ecological Services	AAFC	9	8	8				
Business Risk Management								
Climate Risk Reduction Fund	AAFC	87	87	87	87	87	87	ongoing
Program to pilot innovations in BRM design	AAFC	4	3	3				
Transparency and accessibility of data on BRM programs	AAFC, StatCan	1	1	1	1	1		
Collaborate to establish early warning systems	AAFC	94	93	93				
INSTITUTIONALIZING ENVIRONMENTAL JUSTICE								
New Office of Environmental Justice	ECCC	12.5	12.5	15	15	15	15	ongoing
Expand Canadian Environmental Sustainability Indicators	ECCC	7	7	7	7	7	7	ongoing
INTEGRATING CLIMATE AND NATURE ACROSS GOVERNMENT BUDGETING AND SPENDING DECISIONS								
Climate Lens	PCO, FIN, ECCC	No additional cost – we expect this could be achieved using existing capacity.						
Green strings	ISED, FIN, NRCan	No additional cost – we expect this could be achieved using existing capacity.						
Phasing out fossil fuel subsidies	FIN, NRCan, ISED, ECCC, GAC	No additional cost – we expect this could be achieved using existing capacity.						
Aligning federal investments with nature commitments								
Whole-of-government review	FIN	No additional cost – we expect this could be achieved using existing capacity.						
Improve accuracy of measurement of GHG emissions	ECCC, NRCan	1.5	1.5					
Eliminate federal funding for Small Modular Reactors	NRCan	No additional cost.						



millions of dollars

Recommendation	Likely Lead Department(s)	2023-24	2024-25	2025-26	2026-27	2027-28	ongoing	(end-year)
<i>Sub-Recommendation</i>								
CLIMATE: EMISSIONS REDUCTIONS								
Canadian centre for decision-useful climate information	ECCC, StatCan	5	5	5				
Canada's carbon pricing	CIB, ECCC, FIN, NRCan, INFC	10,000						
Creating a permanent municipal climate action fund	INFC	3,000	3,000	3,000	3,000	3,000	3,000	(2030-2031)
Electric bus transition	NRCan	4						
Reducing carbon emissions from the transport sector								
Modernize the Green Levy program	NRCan, FIN, TC	Additional revenues to be determined based on program design.						
Expand the iZEV program to include electric-assisted bikes	TC	25	25					
Include used EVs in iZEV program & scale purchase incentives	TC	No additional cost.						
Cleaning up and decarbonizing domestic shipping								
Zero-emission vessels	TC, NRCan	10	10					
GHG emission reduction innovation fund	TC	5	5					
Shore power	TC, ECCC, INFC	20	20	20	20	20		
Alternative fuels	TC, ECCC, INFC	20	20	20	20	20		
Marine fuel carbon pricing	TC, ECCC, DFO	2.5	2.5					
Nature-based Solutions	ECCC, AAFC DFO, INFC, PC	Mobilize additional \$3 billion by 2025, including for GBC recommendations.						
NATURE CONSERVATION & RESTORATION: ARRESTING BIODIVERSITY LOSS								
Establishing a UN Decade on Ecosystem Restoration Office	ECCC	1	1	1	1	1		
Habitat Restoration Fund	ECCC, AAFC, DFO	72	72	72	71	71	71	(2029-30)
Habitat Infrastructure Renewal Fund	ECCC	37.5	37.5	37.5	37.5			
Mapping, researching and restoring Canada's blue carbon	DFO	20	20	20	20	20		
Freshwater management								
Renew the 1987 Federal Water Policy	ECCC	2.5	2.5					
Capacity for Indigenous engagement	ECCC, ISC	50	50	50	50	50		
Renew the Freshwater Action Plan								
Address nutrient loading in the Great Lakes	ECCC	100	100	100	100	100		
Address nutrient loading – Red & S. Saskatchewan Rivers	ECCC	30	30	30	30	30		
Continue efforts to protect & restore Lake Simcoe	ECCC	6	6	6	6	6		
Expand Freshwater Action Plan								
BC Watershed Security Fund	ECCC	15	15	15	15	15		
Other priority watersheds	ECCC	40	40	40	40	40		
Fish habitat protection								
Status of Fish Habitat	DFO	5	5	5	2	2	2	ongoing
Integrated Approach to Fish Habitat	DFO	10	10	10				
Expand the Aquatic Ecosystems Restoration Fund	DFO	50	50	50	50	50		
Ecologically Significant Area	DFO	5	5	5	5	5		
Safeguarding the future of Canada's fisheries								
Implementation of the Sustainable Fisheries Framework	DFO	20	20	20	20	20		
Modern fisheries catch monitoring and observer program	DFO	17	17	16				
Boat-to-plate traceability program	DFO, CFIA	20	20	20	20	20		
Transition to ecosystem-based fisheries management	DFO	15	15	15	15	15		
Conserving Canada's birds	ECCC	4.5	4.5	4.5	4.5			
Pan-Canadian Approach to Wildlife Health	ECCC, PHAC, CFIA	24	24	24	24	24		
CLIMATE ADAPTATION								
National Adaptation Strategy – funding implementation	ECCC, INFC, NRCan	Prepare a budget and/or create a dedicated fund for NAS implementation.						
Natural Infrastructure Fund top-up	INFC	134	133	133				
ENVIRONMENTAL JUSTICE								
Chemicals Management Plan top-up	ECCC, HC	200						
Youth employment programs	ESDC, PC, ECCC	25	25	25	25	25		
CROSS-CUTTING RECOMMENDATIONS								
Canada's international commitments								
International biodiversity conservation	GAC, ECCC	600	600	600	600			
International climate finance	GAC, ECCC	3,500	3,500	3,500	3,500			
Supporting evidence-based decision making								
Canadian National Wetland Inventory	ECCC	20	20	20	20	20		
National Grasslands Inventory	AAFC	10	10	10	10	10		
National Critical Habitat Inventory	ECCC, DFO	15	15	15	15	15		
National Forest Inventory	NRCan	5	5	5	5	5		
Upgrading enforcement of environmental laws	ECCC	40	40	40	40	40	40	ongoing



Co-Chair: Theresa McClenaghan, Executive Director and Counsel, Canadian Environmental Law Association

Co-Chair: Gauri Sreenivasan, Director of Policy and Campaigns, Nature Canada

Director: Shannon Arnold, Senior Marine Program Coordinator, Ecology Action Centre

Director: James Brennan, National Director, Industry & Government Relations, Ducks Unlimited Canada

Director: David Browne, Director of Conservation, Canadian Wildlife Federation

Director: Vanessa Corkal, Senior Policy Advisor, Canada Energy Transitions, International Institute for Sustainable Development

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