

NATIONAL CLIMATE ADAPTATION

Summit Recommendations



**CLIMATE PROOF
CANADA**

National Climate Change Adaptation Summit Recommendations

How the Federal Government can make rapid, tangible progress on implementing Canada's National Adaptation Strategy

The Government of Canada launched its world-leading National Adaptation Strategy (NAS) in June 2023. The NAS set targets in five key areas – disaster resilience, infrastructure, the natural environment, health and wellness, and the economy.

We now have an opportunity to better protect households and our communities from the increasingly severe impacts of climate change.

Equipped with these targets, now comes the hard part – determining how Canadians, our governments, the private sector, and civil society organizations can collaborate and innovate to meet these targets.

Guided by this mission, Climate Proof Canada organized an extensive workshop process. Leading national experts and federal departmental officials came together to debate and determine the initial steps required to make meaningful progress toward the targets. These discussions focused on:

- Ensuring Canada addresses its affordable housing crisis while improving resilience to climate disasters;
- Meeting our infrastructure adaptation targets with a particular focus on natural infrastructure;
- Advancing resilience of First Nations, Inuit and Métis communities and people across Canada; and
- Achieving our health and wellness targets with a particular focus on coping with extreme heat.

Following on from these workshops, the members of Climate Proof Canada are presenting this suite of recommendations to help guide federal government investments and program announcements in the 2023 Fall Economic Statement and Budget 2024.

If adopted, these recommended actions will make Canada more climate resilient and better able to protect its communities and economy. Taken together, the recommendations will enable all levels of government to deliver meaningful progress by taking immediate action on the targets laid out in the NAS.

It begins with adequate funding. **To achieve its goals, the National Adaptation Strategy needs to be supported with annual investments of at least \$5.3 billion over the next six years – for a total of at least \$31.5 billion by 2030.**¹

These ongoing investments are required to better protect Canadian lives and infrastructure, respond to – and recover from – climate-related disasters, and avoid unnecessary economic and social disruption.

Climate Proof Canada has also identified – and is recommending a range of immediate actions that do not require additional budgetary investments.

Pressing areas and opportunities for action to deliver rapid, tangible progress on the National Adaptation Strategy targets include:

CLIMATE PROOF HOUSING

- Canada needs to build more homes in the right way and in the right places to ensure that new and existing households are better protected from climate-related disasters; rapidly update existing retrofit programs to incorporate climate resilience and adaptation; develop a new community resilience rating system that identifies communities most at risk and enables better decision-making for new developments; and urgently deliver on an affordable national disaster insurance program, beginning with flood protection, for those at highest-risk.

BUILDING CLIMATE RESILIENT INFRASTRUCTURE

- The forthcoming federal infrastructure plan needs to incorporate climate resilience into all federal investment decision-making; take a comprehensive approach to invest in grey and natural infrastructure that enhances community protection from climate change; develop an enhanced Disaster Mitigation and Adaptation Fund (DMAF); and ensure programs are designed in ways that support private-sector mobilization of capital.

¹ Based on IBC/FCM Report (2019). A [report](#) from two founding members of Climate Proof Canada – the Federation of Canadian Municipalities and Insurance Bureau of Canada – estimated that avoiding the worst impacts of climate change at the municipal level will cost an estimated \$5.3 billion per year.

INDIGENOUS RESILIENCE

- Government should expand on existing program requirements to enable increased participation and equitable access of the First Nations, Inuit and Métis peoples who rely on these programs. There must be a commitment to new long-term funding to further support climate resilience, adaptation and the diverse emergency management needs of First Nations, Inuit and Métis communities.

ADAPTING TO EXTREME HEAT

- Government should invest in scientific research, improve data collection and sharing to enable all levels of government and health care stakeholders to enhance programs and service delivery, establish new municipal infrastructure and community program funding streams to support vulnerable populations, and better alert communities, including rural and remote communities, to extreme heat events.

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An unprecedented wildfire season was the backdrop to Climate Proof Canada's National Climate Adaptation Summit Series

By early August 2023, Canada had experienced another significant wildfire season. In fact, 2023 marked the most extreme wildfire season ever recorded. By the end of September, there will have been over 6,100 fires and more than 15 million acres burned across virtually every region of the country, shattering the previous record of 7.6 million acres burned in 1989.² These fires have released more than one billion tonnes of carbon dioxide emissions into the atmosphere, equivalent to the annual emissions of the global airline industry.³ Unfortunately, these events are becoming more frequent and inevitable. While many individuals, families and communities continue to experience the effects of this summer's wildfire season, it is important to note that climate change is having an impact on populations experiencing vulnerability in Canada, such as those precariously-housed, seniors and low-income earners. First Nations, Inuit and Métis communities, are also disproportionately impacted and are at higher risk of loss with many continuing to experience displacement as a result of this summer's wildfires.

Every year new, and often historic wildfire, flooding, extreme heat and storm events exacerbated by climate change are severely impacting our communities. In 2022, insured losses alone from extreme weather and climate-change-related disasters cost \$3.4 billion, making it the third worst year for insured losses in Canadian history. Average annual losses in this country now regularly exceed \$5 billion.⁴ Canada's response to climate change is about playing both offence and defence – adapting to climate change and reducing our emissions – to enhance community protection to increasing extreme weather events and increasing our economic resilience. Repeatedly, we have seen that Canada is not prepared for the climate impacts we are already experiencing, let alone what is to come.

² <https://cwfis.cfs.nrcan.gc.ca/report> and <https://ciffc.net/summary>

³ <https://www.cbc.ca/news/politics/canada-wildfire-season-worst-ever-more-to-come-1.6934284>

⁴ The Insurance Institute of [Canada's New Climate Risks Report](#) explores risks and solutions and indicates that the average annual severe weather claims paid by insurers in Canada is expected to double over the next 10 years, increasing from \$2.1 billion to \$5 billion annually."



Climate Proof Housing

Canada is experiencing a crisis in the availability of affordable housing. But building more homes is not enough. There is an urgent need to build the 5.8 million new homes that Canadians need in the right ways and in the right places and retrofit existing homes to better protect our communities from climate change and the increasing frequency and severity of extreme weather events. Indeed, 84% of Canadians believe it is important to develop new housing that is resilient to climate change impacts.⁵ According to Canada Mortgage Housing Corporation (CMHC), Canada's housing stock is expected to increase by 2.3 million units by 2030; however a further 3.5 million homes are needed to restore affordability. How these homes are built and where they are built must be carefully considered if they are to be climate resilient and insurable. In short, Canada needs to build and retrofit rapidly to ensure we are delivering climate-proof housing.

New climate-resilient housing must be constructed in areas that are at minimal risk of flooding and other climate-related threats. According to the federal Task Force on Flood Insurance and Relocation a further 1.5 million homes – 10% of current housing stock – are currently built in areas at high risk of coastal, riverfront or urban flooding. As well, an undetermined number of homes are located in communities at high risk of wildfire, particularly in rural and remote areas.

In the United States, the rise of climate-related perils is resulting in many homeowners being unable to find insurance against wildfire and flooding.

Insurers are being forced to take a closer look at regional climate risks across North America. Homes across Louisiana, Florida and California cannot now be insured against prevalent perils. In Canada, a National Flood Insurance Program was announced in Budget 2023 to ensure that homes at high risk of flooding will be insurable. However, after an unprecedented wildfire season, insurers are systematically examining community wildfire protection, particularly in Western Canada. Given that most homeowners cannot secure a mortgage without fire insurance in place, home-ownership in areas of high wildfire risk may become increasingly difficult to maintain or afford in the coming years without a focused effort on addressing risk.

⁵ Abacus Data, Housing and Climate Polling, September 2023

The Government of Canada is about to release its Green Building Strategy, which should be instrumental in guiding the development of climate-resilient and net zero-compatible homes. Given recent floods, wildfires and windstorms across our country, the Green Building Strategy must prioritize the promotion of climate resilience in our existing and planned residential building stock.

With this in mind, the Green Building Strategy – and all other major housing initiatives – should support rapid, tangible progress toward the following NAS targets:

- By 2025, 50% of Canadians have taken concrete actions to better prepare for and respond to climate change risk facing their households
- By 2025, 60% of Canadians, including northerners and Indigenous peoples, are aware of the disasters facing their households
- By 2026, additional climate change resilience considerations are incorporated into three Canadian Codes (National Building Code, Canadian Highway Bridge Design Code, and Canadian Electrical Code)
- By 2028, the federal government, provinces and territories have worked collaboratively to prioritize at least 200 higher-risk flood areas for new flood hazard maps/regional level modelling, and have taken evidence-based risk mitigation actions in accordance with scientific guidance.

In 2023, Canada experienced the most extreme wildfire season ever recorded.



6,569 fires



18.5 million hectares
burned



More than \$1.4 billion =
cost to fight wildfires



155,856 evacuees

Recommendations for Achieving NAS Targets:

The Green Building Strategy and any other forthcoming housing measures should prioritize climate resilience, recognizing that reducing Canada's emissions down to net zero is a critical way to decrease climate vulnerability.

They should incentivize densification and physical hazard resilience, encourage passive cooling mechanisms, and update codes and standards for 2030 and 2035.

Given current planning cycles, climate resilience measures will not be incorporated into the National Model Building Code until after 2030. Millions of new homes are being planned for development to meet housing affordability challenges. The National Research Council's Climate Resilient Buildings and Core Public Infrastructure Initiative (CRBCPI), with an important focus on flood, wildfire and extreme heat resilience, delivered significant economic benefits by integrating climate resilience into building and infrastructure design, gui and codes. According to the Institute for Catastrophic Loss Reduction, CRBCPI will ultimately save Canada an estimated \$4.7 billion per year of new construction that complies with its various guidelines, at an estimated added construction cost of \$400 million per year, for a savings of almost \$12 per \$1 invested.⁶ If we proceed without improvements we will be failing to protect the homes we desperately need and risk missing out on important positive economic impacts from federal infrastructure investments.

Recommendation 1: Build New Homes in the Right Way by taking action to effectively incorporate climate resilience measures and make progress toward net zero.

- **ACTION:** The federal government should, by 2026, prioritize an off-cycle reform to the National Model Building Code to integrate physical climate resilience measures, such as passive/active cooling requirements and safe maximum indoor temperature limits. It should also support integration with local building performance standards to reflect changing regional climate risks such as floods, fires, extreme heat, and permafrost melt.
- **ACTION:** The federal government should, by 2026, expand the Greener Homes Initiative and Greener Neighbourhoods Pilot Program to integrate resilience objectives, create broad demand for deep retrofits, accelerate the pace and scale of retrofits, and decarbonize multiple buildings at once within communities.

⁶ <https://www.iclr.org/wp-content/uploads/2020/03/SPA-Climate-resiliency-book.pdf>

Recommendation 2: Build New Homes in the Right Places by working in cooperation with municipalities, First Nations, Métis and Inuit communities, and provinces and territories, and by using federal levers to disincent new building in flood- and wildfire- prone areas:

- **ACTION:** Rapidly delineate High Risk Flood Management Zones across Canada and deploy spending and regulatory levers to discourage future residential building in these zones. For example, the federal government should redesign the Disaster Financial Assistance Arrangements program (DFAA) in such a way that it does not enable repetition of poorly risk-informed decisions by provinces, territories, and municipalities. If rebuilding occurs in risk-prone areas, future payouts must be limited after sufficient warning has been provided.
- **ACTION:** Immediately map communities at high risk of wildfire and fund development of Wildfire Community Action Plans in these areas.
- **ACTION:** Ensure new federal housing policies, programs and investments avoid misaligned incentives for other levels of government to approve development in hazardous areas. The work actively underway across the federal government to improve mapping of flood hazard and fire hazard/risk should inform near-term housing decisions.
- **ACTION:** Ensure new federal housing policies, programs and investments do not fund the construction of housing infrastructure in hazard zones identified as high-risk through a future national disaster insurance program.



Flooding is Canada's greatest climate-related risk, with more than 1.5 million homes currently built in areas at high risk of coastal, riverfront or urban flooding.



Recommendation 3: Immediately commit to incorporating climate resilience and adaptation measures into existing retrofit programs to enable households, communities and municipalities to better protect themselves from extreme weather events.

- **ACTION:** Develop a new federal program within Natural Resources Canada to expedite residential resilient retrofit programs into existing programs, including the Deep Retrofit Accelerator Initiative, based on lessons learned from the Greener Homes Program.

Recommendation 4: Rapidly establish a Home Adaptation Rating System and a Community Resilience Standard to encourage homeowners and communities to undertake retrofits to better protect lives, property and infrastructure. To support its forthcoming housing and infrastructure plan, the federal government should expand on the mandate letter commitment to support work already underway to create a Climate Adaptation Home Rating system in collaboration with industry, labour, municipalities, regulators and Indigenous experts.

- **ACTION:** Working with the insurance industry, expedite development of a Climate Resilience Residential Rating System at the home and community levels as an essential lever to communicate risk to homeowners, encourage local implementation of new resilience-informed national model building code and encourage uptake of resilience retrofit programming.
- **ACTION:** Empower the Office of Energy Efficiency at Natural Resources Canada to develop a Community Resilience Standard.
 - A Climate Adaptation Residential Rating System should be developed to help the financial sector create necessary incentives for homeowners to protect their homes from climate impacts. New homes must be built in the right places and in the right way while existing homes must be retrofitted to lower their exposure to floods, wildfires, extreme heat and wind. A rating system is foundational to measuring and disclosing residential climate resilience.
 - Dedicated resilience retrofit funding should also be identified to accompany the rating system and both should be featured in Canada's forthcoming Green Building Strategy.
 - A community resilience standard will require risk assessment for multiple physical risks (incorporating community-level climate adaptation guidance for multiple extreme weather hazards such as flood, wildfire, and extreme heat) and should incorporate future climate projections to identify communities most at risk. Risk assessments should be informed by various sources, including Indigenous knowledge, and should involve a collaborative effort among all levels of government.

- A CRS can be used by local communities to prioritize physical mitigation, making better use of limited local resources.
- The standard should be used as a lens for investment at all levels and as a way to help insurance companies assess existing and future risks.
- A Community Resilience Standard would then be used in conjunction with hazard risk mapping as a lens to identify those communities at highest risk, and the necessary actions to reduce that risk. Key programs that could be supported would include all future housing and infrastructure investments, DMAF, DFAA and a national disaster insurance program, among others.

Recommendation 5: Urgently advance an affordable national disaster insurance program, focused initially on flooding, to protect households at high-risk and enable residents to better educate themselves on the extreme weather risks they face.

- **ACTION:** In Budget 2024, invest the necessary resources to establish and administer an affordable National Flood Insurance Program to better protect households.
- **ACTION:** Design the new National Flood Insurance Program in such a way that it encourages investment by homeowners and communities in resilience and discourages building new homes in flood-prone areas. The program should create strong incentives to invest in resilience infrastructure, require adoption of resilience-informed building codes and align with existing Provincial and Territorial policies and regulations. Canadians would realize significant savings both as policyholders and taxpayers through federal aggregation of incentives for private investors to design, deliver and potentially maintain climate-adjusted flood resilience infrastructure. For example, the public funds that would otherwise be allocated to address future losses could instead be employed as a source of cash flow to enable crowding in private capital to finance preventive climate adaptation infrastructure at scale.
- **ACTION:** Implement a national education program to promote guidance on extreme weather protection and physical risk at the level of the home. This program would inform Canadians about simple adaptive measures they can take around their residence to reduce risk.



Building Climate Resilient Infrastructure

In 2025, Canada will experience \$25 billion in losses, relative to a climate-stable scenario, which equals 50% of projected GDP growth that year. Climate change will increasingly make life less affordable for households and have a severe impact on vulnerable infrastructure. Annual costs could be as high as \$13.6 billion to homes and buildings as a result of flooding; up to \$5.6 billion annually in damage to roads and railways by 2050; with costs to utilities and electricity infrastructure double by mid-century.⁷

As a large trading nation, the impact of climate change on our supply chains threatens economic growth and the cost of everyday household items, further exacerbating the affordability crisis. For example, an atmospheric river in British Columbia in 2021 cut off the Lower Mainland and the Port of Vancouver when flooding destroyed the Coquihalla Highway, as well as important agricultural land. The federal government has an historic opportunity to invest in building climate resilient infrastructure that better protects households and our economy. According to the Canadian Climate Institute, proactive investments in climate adaptation provide a return on investment of between \$13-15 for every dollar spent.⁸ This extends to coastal and marine ecosystems that can play a critical role in building resilience by reducing annual damage to property from extreme storms by up to 30%, savings of up to \$1 billion USD in avoided losses.⁹

⁷ P V, <https://climatechoices.ca/wp-content/uploads/2021/09/FINAL-ExecSumm-Infrastructure-Report.pdf>

⁸ P. 16, <https://climateinstitute.ca/wp-content/uploads/2022/09/Executive-summary-damage-control.pdf>

⁹ Beck, M.W., Losada, I.J., Menéndez, P. et al. 2018. The global flood protection savings provided by coral reefs. *Nat Commun* 9, 2186. <https://doi.org/10.1038/s41467-018-04568-z>



A Blueprint for a Climate-Resilient Canada Infrastructure Plan

Climate Proof Canada is supportive of Infrastructure Canada’s current policy reformulation, which should result in a more integrated approach to infrastructure funding that prioritizes areas of greatest need in bilateral conversations with other governments. We expect the forthcoming federal infrastructure plan to prioritize climate adaptation and resilience while taking a comprehensive approach to investing in grey, natural, and combined infrastructure projects. Infrastructure funding programs and infrastructure codes should be designed to minimize climate risk and maximize resilience. The plan should enable regional approaches to addressing climate hazards such as wildfires and flooding through bundling of projects that drive positive community outcomes, allowing smaller municipalities and rural communities – those often hardest hit by climate disasters – to synergize their efforts.

Climate Proof Canada has identified the following parameters and challenges during our discussions:

- Rebalance the matching fund requirements for rural and remote municipalities to support smaller investments.
- Prioritize redesign and update all retrofit programs – including their eligibility requirements – to ensure adaptation investments are supported.
- Continue to support small projects (e.g., with budgets at or under \$1million) through the successor to DMAF.
- Enable regional scale planning and action. Legislation like California’s SB 852 provides local and regional jurisdictions with the tools to designate districts that facilitate raising dedicated funds for resilience and mitigation initiatives.
- Accelerate consultation, permitting and approval processes for resilient infrastructure projects. A preferential regime is key to driving activity in an area where the perceived regulatory challenges are often a fatal blow to projects with uncertain economics. In particular, the federal government should fast-track projects that will achieve the greatest enhanced resilience for the greatest number of Canadians, or for those most socially vulnerable.
- Ensure the new infrastructure plan contributes to achieving targets of the new Kunming-Montreal Global Biodiversity Framework, to which Canada has committed.

The new Canada Infrastructure Plan should advance rapid, tangible progress towards achieving the following NAS targets:

- Starting in 2024, resilience to climate change impacts is factored into all new federal infrastructure funding programs.
- By 2026, additional climate change resilience considerations are incorporated into three Canadian Codes (National Building Code, Canadian Highway Bridge Design Code, and Canadian Electrical Code).
- By 2030, 80% of public and municipal organizations have factored climate change adaptation into their decision-making processes.
- The Government of Canada, in partnership with First Nations, Inuit and Métis will continue to make immediate and long-term investments to support ongoing work to close the infrastructure gap by 2030.
- By 2030, robust guidance, codes and standards covering the top climate change risks for key public infrastructure systems are available to be adopted by all infrastructure decision-makers.
- Conserve 25% of our lands and waters by 2025 and 30% of each by 2030, working to halt and reverse nature loss by 2030 in Canada.

Recommendations for Achieving NAS Targets:

Recommendation 1: The federal government urgently needs to deliver public investment in resilient infrastructure. A significant increase in public funding is needed to better protect Canadians from the catastrophic weather events increasingly disrupting their lives, the economy, and ecosystems.

This means additional funding for structural adaptation measures (both nature-based and built infrastructure) to reduce risks such as flooding, coastal erosion, wildfire, and extreme heat.

- **ACTION:** In Budget 2024, invest in the Disaster Mitigation and Adaptation Fund (DMAF) with surge funding of \$2 billion in the first year and at least \$1billion/year for 10 years thereafter. Provide planning funding for communities to develop technical feasibility studies based on local risk and vulnerability assessments and meet any new federal resilience or climate lens criteria. Be certain not to duplicate efforts. Instead, build on capacity development, risk, and vulnerability assessments and planning work funded by the Green Municipal Fund.
- **ACTION:** In Budget 2024, deliver direct investment to establish a dedicated water and wastewater infrastructure program of \$1billion annually over 10 years through a

mixture of grey and green investments. This funding would make these critical systems more resilient to climate change and have additional co-benefits such as solving other pressing challenges for Canadian municipalities, such as rapid population growth, cybersecurity and contaminants of emerging concern.

- **ACTION:** Ensure that future programs include planning funding for communities pre and post-disaster so they can prepare to rebuild rapidly. Communities need urgent funding immediately post-disaster to help them navigate options to rebuild and recover. Currently, DFAA repayments are not paid for years until after communities are rebuilt, often without any new resilience measures. As well, DMAF payments are not meeting the current demand. Communities need support to assess damage, prepare to build back better, or plan for strategic retreat, if necessary.

Recommendation 2: Unlock private capital to multiply the impact of public investments in resilient infrastructure. Public funding need not be the only option. Private investors stand at the ready to allocate capital to resilient infrastructure if financial models can be made comparative and competitive relative to other investment opportunities. To unlock private capital, the federal government should:

- **ACTION:** Redesign DMAF to encourage applicants to: 1) identify the stakeholders who will benefit from the planned infrastructure, then 2) secure those stakeholders' financial contributions to the infrastructure project in proportion to the benefit they will receive. This could unlock cash flows enabling greater private investor participation, allowing the applicant to do more, faster, and to share more risk. To ensure social equity, this should not apply to applicants with projects aiming to build resilience of equity-deserving communities.
- **ACTION:** Enable the regional and national aggregation of municipal resilient infrastructure projects and co-beneficiaries' financial contributions to facilitate their matching with large private capital pools. This should consider approaches such as long-term debt structures.
- **ACTION:** Encourage the Canada Infrastructure Bank to rapidly scale the necessary investment models to de-risk adaptation infrastructure projects under the existing "Green Infrastructure" program. At minimum, the government should incorporate adaptation measures into energy efficiency retrofits for public buildings.
- **ACTION:** Provide a guarantee or other form of security to municipalities to enable their financial support of privately funded projects that achieve measurable resilience benefits.

Recommendation 3: Ensure that natural infrastructure investments are prioritized and effectively valued within the federal government’s forthcoming infrastructure plan. These investments not only enhance the resilience of the built environment but also support communities' abilities to adapt to extreme heat.

- **ACTION:** Provide funding support of \$500 million over five years to scale up regional and local government natural asset management capacity under either the existing Natural Infrastructure Fund or the Federation of Canadian Municipalities’ Green Municipal Fund channels. Mainstreaming natural asset management can help pave the way for private investment in natural infrastructure projects by providing a baseline against which returns can be measured. Currently, natural assets are absent from accounting and financial reporting frameworks.
- **ACTION:** Enhance the existing “climate lens” used for federal infrastructure investment decisions to incorporate natural asset and natural infrastructure valuation. This will enable the federal government to better guide its infrastructure investment decisions across departments and agencies. And it would ensure that nature-based solutions have been considered and integrated into major and regionally aggregated infrastructure projects, where feasible. By limiting this proposed mandatory requirement to larger or aggregate investments, including watersheds, it relieves the burden on rural and small municipalities that lack capacity but have needs that are equal or greater than those of medium and large municipalities. For rural and small municipalities, the incorporation of nature-based solutions into infrastructure proposals should be enabled on an opt-in basis to capture the significant potential of comprehensive infrastructure developments to these communities.
- **ACTION:** Consider the opportunity to align new infrastructure and housing measures with the Two Billion Trees program and other federal programs that support nature-based climate solutions for major investments to enhance urban greening and cooling measures to address extreme heat in new and existing developments.



Indigenous Resilience

First Nations, Métis and Inuit communities are on the frontlines of the climate crisis. This year alone, several Indigenous communities and tens of thousands of Indigenous Peoples have been displaced by the devastating wildfire season that has affected nearly all of the provinces and territories. It is estimated that nearly 42% of wildfire evacuations occur in Indigenous communities¹⁰. Since 2010, there have been over 580 evacuations impacting over 130,000 First Nations Peoples.¹¹ This number will only increase as communities face repeated evacuations year after year with people experiencing barriers to returning home, such as lack of access to funding and culturally appropriate services. This situation is compounded by chronic underfunding in climate adaptation and emergency management and gaps in federal programming.

The rapidly changing environment affects critical aspects of Indigenous communities' livelihoods – such as access to traditional food sources, health and well-being, and their ability to engage in cultural practices. Disaster and extreme weather events fuelled by climate change exacerbate these impacts and compromise a community's ability to respond to, recover from and prepare for climate events. For example, according to the *National Inuit Climate Strategy* developed by Inuit Tapiriit Kanatami, the national representational organization protecting and advancing the rights and interests of Inuit in Canada, Inuit hunters face increasing risk to their safety as sea ice diminishes and thins, and as permafrost melts, communities are becoming more exposed to diseases that are zoonotic, water- and vector-borne, and food related.¹² Or as evidenced by the Métis National Council's *Métis Nation Climate Change and Health Vulnerability Assessment*, climate-fuelled disasters, such as more severe and frequent wildfires can impact traditional harvesting activities that have a deep connection to Métis identity and well-being.¹³ A loss of access to or disruption of harvest activities can result in food insecurity and compromise health.¹⁴

¹⁰ [42% of wildfire evacuations occur in Indigenous communities, researcher | Globalnews.ca](https://www.globalnews.ca/story/indigenous/2020/06/18/indigenous-wildfire-evacuations-42-percent-1.1411111)

¹¹ https://www.oag-bvg.gc.ca/internet/English/att_e_44162.html

¹² https://www.itk.ca/wp-content/uploads/2019/06/ITK_Climate-Change-Strategy_English.pdf

¹³ <https://www.Métis.nation.ca/uploads/documents/MNCHVA%20FINAL%20Report.pdf>

¹⁴ <https://www.Métis.nation.ca/uploads/documents/MNCHVA%20FINAL%20Report.pdf>

The impacts of colonialism intersect with the effects of climate change. First Nations, Inuit and Métis were forcibly displaced from their traditional lands to areas that lacked resources. This displacement also restricted their movement between seasonal traditional habitation sites, and imposed strict, arbitrary boundaries across the land. Compounding this reality are the barriers, gaps and inequities within federal approaches to climate adaptation and emergency management, including the ability of First Nations, Inuit and Métis to build sustainable resilience. With the launch of Canada's first National Adaptation Strategy, the federal government has an opportunity to collaborate meaningfully with First Nations, Inuit and the Métis Nation to bolster resilience against the growing impacts of climate change.

Through engagement with the First Nations, Inuit and the Métis Nation and emergency response partners, we have identified three key recommendations to support and empower Indigenous resilience to the impacts of climate change. As such, we recommend that the federal government, in partnership with First Nations, Inuit and the Métis Nation, must:

- Meaningfully implement and enhance distinctions-based programming to ensure programs are fit for purpose.
- Leverage existing national dialogue mechanisms to effectively deliver on National Adaptation Strategy targets and goals.
- Invest in climate adaptation and emergency management preparedness, response and recovery through direct distinctions-based, long-term funding, to further build capacity and advance the diverse needs of First Nations, Inuit and the Métis Nation to address climate adaptation and emergency management preparedness, response and recovery. This would help meaningfully support Indigenous Climate Leadership.

These recommendations are aligned with Canada's stated commitment to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), the Sendai Framework for Disaster Risk Reduction and the Truth and Reconciliation Commission of Canada's Calls to Action.

Our recommendations support rapid, tangible progress toward the following NAS targets:

- The Government of Canada in partnership with First Nations, Inuit and the Métis Nation will continue to make immediate and long-term investments to support ongoing work to close the infrastructure gap by 2030.
- By 2030, all northern and Indigenous communities have resources to develop, or have access to, culturally appropriate tools and information to address climate risks.

Recommendations to achieve NAS Targets

Recommendation 1: Immediately expand existing program eligibility requirements to empower First Nations, Métis, and Inuit communities to improve their ability to access and engage in all existing and future National Adaptation Strategy-related activities.

- **ACTION:** Develop future programs in partnership to ensure they are distinctions-based. Distinctions-based approaches will help to enhance equitable access across programming that better reflect the needs of First Nations, Inuit and the Métis Nation in their unique and distinct contexts. Existing programs should move away from an over-reliance on proposal-based, competitive programming and towards accessible, equitable funding that is distinctions-based.
- **ACTION:** Recognize existing and pervasive structural barriers within existing funding regimes and the chronic underfunding of federal programs that target First Nations, Métis and Inuit. It is further recommended that the federal government act on and use best practices that have been developed and/or co-developed with First Nations, Métis and Inuit, such as the guidelines developed in the Joint Committee on Climate Action 2020 Annual Report.¹⁵

Recommendation 2: Leverage existing national dialogue mechanisms, such as the Joint Tables on Climate Change, with First Nations, Inuit and the Métis Nation to effectively deliver on National Adaptation Strategy targets and goals. This would bridge the gap until the future operationalization of the Indigenous Climate Leadership (ICL) program is implemented. Ensure self-governing First Nations are included in this dialogue and that funding is made available to support this engagement process.

- **ACTION:** Urgently undertake formal engagement on NAS implementation through existing mechanisms. Recognizing that the ICL is in development, the federal government should not solely rely on the ICL as the only mechanism to serve the interests and needs of First Nations, Métis and Inuit as it relates to emergency management and climate adaptation. Additionally, the creation of new dialogue forums can create capacity issues for organizations, groups and communities, thereby compromising effectiveness.
- **ACTION:** Support stable, adequate, long-term capacity to engage and connect communities together and with government partners through NAS implementation.

¹⁵ <https://www.afn.ca/wp-content/uploads/2021/07/21-0015-JCCA-Annual-Report-EN.pdf>

- **ACTION:** Ensure equitable and ethical engagement of Indigenous knowledge, including Indigenous science, practices, technologies and other traditional knowledge and traditional knowledge systems.
 - This includes decision-making for Indigenous Peoples, and framework development for ethical and equitable engagement.

Recommendation 3: In Budget 2024 invest in First Nations, Métis, and Inuit resilience to climate change through direct funding to enhance capacity for climate adaptation and emergency management. This would enable community-level cooperation, collaboration, training, and coordination with all levels of government and all other emergency management actors and relevant partners.

- **ACTION:** In Budget 2024 invest \$501 million over five years in Indigenous Climate Resilience for First Nations to support Emergency Management.¹⁶
- **ACTION:** In Budget 2024 invest \$145 million in Indigenous Climate Resilience and Emergency Management for the Métis Nation.¹⁷
- **ACTION:** In Budget 2024 support critical investment in Indigenous Climate Resilience for Inuit Peoples in the North.
- **NOTE:** We acknowledge that these investments do not cover all Indigenous Peoples across the country and that additional resources will be necessary to better prepare all Indigenous Peoples across Canada for climate change.

¹⁶ <https://www.ourcommons.ca/Content/Committee/441/FINA/Brief/BR12565239/br-external/AssemblyOfFirstNations-e.pdf>

¹⁷ <https://www.ourcommons.ca/Content/Committee/441/FINA/Brief/BR12564475/br-external/MétisNationalCouncil-e.pdf>



Adapting to Extreme Heat

Extreme heat events are a direct result of climate change and are expected to become even more frequent and severe, both across Canada and globally.¹⁸ In fact, extreme heat is estimated to have resulted in 619 deaths in British Columbia between June 25 and July 1, 2021¹⁹. Taking a whole-of-society inter-jurisdictional approach and investing in enhancing our understanding of the health impacts of extreme heat will go a long way in addressing the threat of extreme heat on the health and wellness of Canadians.

The National Adaptation Strategy emphasized investments in improving health system capacity to identify and address a range of urgent climate-related health risks such as extreme heat, infectious diseases, wildfire smoke, foodborne hazards and impacts to traditional foods, poor mental health outcomes, and others.

Climate Proof Canada calls on the federal government to address the impacts of extreme heat while also taking measures to address these other climate-related health risks.

Extreme heat events in Canada have historically resulted in increased illness and death. These deaths will be accelerated by worsening natural disasters that Canada will face as a consequence of climate change. Granular health data on the impact of extreme heat waves is insufficient, and must be standardized and tracked across Canada. This data is critical because:

- Stakeholders in Canada’s healthcare systems – including hospitals, frontline workers, insurers and policymakers – face a significant data gap on the current and projected health impacts of the climate crisis, which is critical for system planning and service delivery.
- Varying warming scenarios will have distinct impacts on the health and wellness of people in Canada, especially those most vulnerable and least prepared to withstand the impacts of climate change.

¹⁸ Intergovernmental Panel on Climate Change. 2021. Sixth Assessment Report.

¹⁹ Government of Canada. Surviving the heat: The impacts of the 2021 western heat dome in Canada. <https://science.gc.ca/site/science/en/blogs/science-health/surviving-heat-impacts-2021-western-heat-dome-canada>



The federal approach to adapting to extreme heat will achieve optimal cost-effectiveness and impact if it adopts an integrated approach. Combining health system and comprehensive infrastructure investments is needed to address both upstream interventions, such as investments in natural green and grey community infrastructure, and downstream interventions, such as improved health data and ongoing programmatic investments in health care.

These recommendations will support rapid tangible progress on the following NAS targets:

- By 2026, 80% of health regions will have implemented evidence-based adaptation measures to protect health from extreme heat.
- By 2030, health systems have identified risks, developed adaptation plans and are measuring progress towards climate-resilience.
- By 2030, consideration of health impacts and benefits are integrated into key climate change tools, guidelines and standards.
- By 2040, deaths due to extreme heat waves have been eliminated.

Recommendations to achieve NAS Targets

Recommendation 1: Support the development of community-level interventions to assist the most vulnerable during extreme heat events, including by developing a dedicated funding stream.

- **ACTION:** Identify and map communities vulnerable to extreme heat events.
- **ACTION:** Expand the HealthADAPT program by:
 - Broadening the range of organizations eligible to receive funding to include grassroots/community-level organizations.
 - Disseminating best practices and successful interventions to HealthADAPT organizations.
 - Evaluating subsidies or other cost-recovery programs for cooling technology/infrastructure.
- **ACTION:** Consult with local communities to ensure that the federal government's efforts to [implement Heat Alert and Response Systems](#) are effective and accessible to those most vulnerable to severe weather events.

Recommendation 2: Empower the provinces and Statistics Canada to include tracking and publishing of deaths related to extreme weather events, starting with deaths from extreme heat events, in the Canadian Coroner and Medical Examiner Database.

- **ACTION:** Develop a standardized approach – in collaboration with the provinces and territories, Statistics Canada and the Public Health Agency of Canada, and aligned with international bodies – to collecting, modelling and disseminating this data to plan for changes in healthcare provision and adapting to the impacts of climate change on the health and wellness of Canadians.
- **ACTION:** Ensure the data-collection approach is consistent and scalable to other weather events with health impacts, including cold weather alerts, flooding, and wildfires.
- **ACTION:** This data should be made accessible to people in Canada by 2025, integrating it with the Climate Atlas of Canada and Climate Data Canada. Data should be paired with information on how to prepare for heat waves and other extreme weather events.
- **ACTION:** Utilize the data collected within 12 to 24 months to inform future resource allocation for the HealthADAPT program to ensure that support is going towards the communities that need it most.

Recommendation 3: Leverage expanded extreme heat event data to equip Canada’s healthcare systems and stakeholders with information on how to prevent and manage the impacts of extreme heat events, among other severe weather events, on the health and wellness of Canadians.

- **ACTION:** Fund an \$80 million program over five years managed by the Canada Institutes of Health Research for scientific research that seeks to better understand the link between climate change, severe weather events (including extreme heat events) and health outcomes in Canada.
- **ACTION:** Rapidly enhance our shared understanding of the acute and chronic impacts of climate change on the health and wellness of Canadians, as well as the wider impacts of climate change on health and healthcare systems, utilizing publicly available digital resources, such as the National Risk Profile and the dissemination of data through federal and provincial health portfolios.

- **ACTION:** Work with the Canadian Institute of Health Information (CIHI) to model long-term forecasts of health impacts from extreme heat events in different warming scenarios such that it can be incorporated into scenario analysis exercises that policymakers, healthcare providers and companies can use to incorporate into their resource planning and risk management practices.
- **ACTION:** Ensure that healthcare outcome models are scalable to incorporate other extreme weather events.

Recommendation 4: The government should provide direct funding through municipalities for planning and community interventions to support the most vulnerable in severe weather events, including heat waves and wildfires.

- **ACTION:** Scale up federal investments in municipal building retrofits. Previous projects of this nature – including through the Community Buildings Retrofit stream of FCM’s Green Municipal Fund and Infrastructure Canada’s Green and Inclusive Community Buildings Program – have demonstrated impressive results that can be replicated with additional investment. This aligns with Recommendation 3 on Building Resilient Infrastructure to ensure natural infrastructure investments are prioritized and effectively valued within the federal government’s forthcoming infrastructure plan.
 - There is a large portfolio of older and inefficient publicly-owned buildings across the country that require retrofits. Retrofitting these facilities would bring immediate greenhouse gas (GHG) reductions, improved community resilience, and extended life for these assets.
- Funding for retrofitting publicly-owned buildings should prioritize investment in public facilities that provide essential community services, such as libraries, aquatic spaces, sports arenas, community centres, childcare facilities, and arts and cultural spaces. Many of these spaces provide a critical refuge for vulnerable residents during extreme heat events and other severe weather events.
- **ACTION:** Develop federal funding streams through municipalities for priority community-based organizations based on vulnerability assessments for enhanced programming for community outreach to vulnerable individuals in extreme weather scenarios such as extreme heat and extreme cold.
 - Check-in programs during extreme heat events
 - Extra hours for heat and cold sheltering programs
 - Funding for active and passive cooling measures for vulnerable community members to access

APPENDIX

Building Resilient Grey Infrastructure

The Climate Proof Housing and Building Resilient Infrastructure briefs were developed as an output from the Climate Proof Canada National Climate Adaptation Summit Series co-convened by Insurance Bureau of Canada and Co-operators, supported by the Federation of Canadian Municipalities with analysis from the Canadian Climate Institute. The organizations hosted a half day workshop in June 2023 with participants from:

- Addenda Capital
- The Canadian Climate Institute
- Canada Infrastructure Bank
- Canada Mortgage and Housing Corporation
- Clean Economy Fund
- Co-operators
- Environment and Climate Change Canada
- Federation of Canadian Municipalities
- Great Lakes and St. Lawrence Cities Initiative
- Infrastructure and Communities Canada
- Insurance Bureau of Canada
- Intact Centre for Climate Adaptation
- Sun Life
- Public Safety Canada

Building Resilient Natural Infrastructure

The Climate Proof Housing and Building Resilient Infrastructure briefs was developed as an output from the Climate Proof Canada National Climate Adaptation Summit Series, co-convened by the Intact Centre for Climate Adaptation and the Ocean Risk and Resilience Action Alliance, supported by the Federation of Canadian Municipalities with analysis from the Canadian Climate Institute. The organizations hosted a half day workshop in June 2023 with participants from:

- Addenda Capital
- The Canadian Climate Institute
- Co-operators
- Conservation Ontario
- Chartered Professional Accounts Canada
- Clean Economy Fund

- Canada Infrastructure Bank
- Canada Mortgage and Housing Corporation
- Definity
- Ducks Unlimited
- Environment and Climate Change Canada
- Federation of Canadian Municipalities
- Great Lakes and St. Lawrence Cities Initiative
- Intact Centre for Climate Adaptation
- Insurance Bureau of Canada
- KPMG
- Ocean Risk and Resilience Action Alliance

Indigenous Resilience Workshop

The Indigenous Resilience brief was developed as an output from the Climate Proof Canada National Climate Adaptation Summit Series, co-convened by the Canadian Red Cross and the Assembly of First Nations. The organizations hosted a two-day workshop in June 2023 with participants from:

- Arctic Athabaskan Council
- Assembly of First Nations
- Canadian Red Cross
- Environment and Climate Change Canada
- Holistic Emergency Management
- Indigenous Services Canada
- Insurance Bureau of Canada
- Inuit Tapiriit Kanatami
- Métis National Council
- Public Safety Canada

Framework Alignment

Sendai Framework for Disaster Risk Reduction:

The Sendai Framework, endorsed by the United Nations General Assembly in 2015, sets out globally agreed upon priorities, targets and indicators to address and reduce the impacts of disasters (from impacts on health, livelihoods, economies, loss of life, environment, etc.). As it applies to Indigenous Resilience, the following from the Sendai Framework are most relevant:

- People-centered preventative approach to disaster risk reduction – needs to be multi-hazard and multi-sectoral, inclusive and accessible. Engage with Indigenous peoples on design, implementation.
- Ensure the use of traditional, Indigenous and local knowledge and practices, as appropriate, to complement scientific knowledge in disaster risk assessment and the development and implementation of policies, strategies and programs of specific sectors, with a cross-sectoral approach, which should be tailored to local realities and to the context.
- Empower Indigenous Peoples in disaster risk management at the local level.
- Indigenous Peoples, through their experience and traditional knowledge, provide an important contribution to the development and implementation of plans and mechanisms, including early warning systems.

United Nations Declaration on the Rights of Indigenous Peoples

UNDRIP, adopted by the United Nations General Assembly in 2007, establishes a “universal framework of minimum standards for the survival, dignity and well-being of Indigenous Peoples.”²⁰ To further the adoption of UNDRIP, the Government of Canada developed the UNDRIP Action Plan 2023-2028 in consultation with First Nations, Inuit, and Métis. The Action Plan includes 181 measures to implement UNDRIP. Inherent in the Action Plan are key principles that are echoed through the Indigenous Resilience policy recommendations, including:

- The need for distinctions-based approaches
- Access to ongoing, long-term and stable fiscal means
- The recognition that First Nations, Inuit, and Métis need to be central to the development and implementation of efforts to curb the impacts of climate change
- The inherent rights of First Nations, Inuit, and Métis to protect and steward lands
- The recognition and incorporation of traditional knowledge²¹

²⁰ <https://social.desa.un.org/issues/indigenous-peoples/united-nations-declaration-on-the-rights-of-indigenous-peoples#:~:text=The%20United%20Nations%20Declaration%20on,%2C%20Bangladesh%2C%20Bhutan%2C%20Burundi%2C>

²¹ <https://www.justice.gc.ca/eng/declaration/ap-pa/ah/p2.html>

Truth and Reconciliation Commission of Canada's Calls to Action

The Truth and Reconciliation Commission of Canada, which enabled survivors of residential schools share their experience and stories, led to the generation of 94 Calls to Action. The Calls to Action provide recommendations to the federal government to support awareness and education about the truth of the residential school legacy and its harms, and to provide measures to better support reconciliation with Indigenous Peoples among other things. While not expressly within the Calls to Action, it is recognized that climate adaptation policies must not contravene efforts, nor adversely impact the implementation of the Calls to Action.

Adapting to Extreme Heat

The Adapting to Extreme Heat brief was developed as an output from the Climate Proof Canada National Climate Adaptation Summit Series, co-convened by Sun Life and the Canadian Association of Physicians for the Environment (CAPE). The organizations hosted a half day workshop in June 2023 with participants from:

- Assembly of First Nations
- Canadian Association of Physicians for the Environment (CAPE)
- Centretown Community Health Centre
- Federation of Canadian Municipalities
- Health Canada
- Insurance Bureau of Canada
- Intact Centre for Climate Adaptation
- Public Safety Canada
- Sun Life

Climate Proof Canada is a national coalition of Canadian business representatives, disaster relief organizations, municipalities, Indigenous organizations, environmental non-governmental organizations (NGOs) and think tanks that believe Canada must prepare for the present and growing effects of climate change through building a more disaster-resilient country. For more information, visit [Climate Proof Canada](#).

Coalition Members:

INSURANCE INDUSTRY

- Aon
- Aviva
- Definity
- Desjardins
- Canadian Association of Mutual Insurance Companies
- Co-operators
- Insurance Brokers' Association of Canada
- Insurance Bureau of Canada
- Intact Financial Corporation
- Property and Casualty Insurance Compensation Corporation
- Sun Life Financial
- TD Insurance
- Travelers
- Wawanesa
- Zurich Canada
- **MUNICIPAL GOVERNMENT**
- Federation of Canadian Municipalities
- Great Lakes and St Lawrence Cities Initiative

INDIGENOUS ORGANIZATIONS

- Assembly of First Nations
- Métis National Council

DISASTER RELIEF ORGANIZATIONS

- Canadian Red Cross
- **PRIVATE SECTOR**
- Canadian Chamber of Commerce
- Forest Products Association of Canada
- Genesis Resiliency
- Surrey Board of Trade

PROVINCIAL ORGANIZATIONS

- Conservation Ontario
- **ENVIRONMENTAL NGOS AND RESEARCH ORGANIZATIONS**
- Canadian Association of Physicians for the Environment
- Institute for Catastrophic Loss Reduction
- Intact Centre for Climate Adaptation
- International Institute for Sustainable Development
- Passive House Canada
- Smart Prosperity Institute
- The Pembina Institute





NATIONAL CLIMATE ADAPTATION

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