



WCS Canada recommendations for discussion paper *Preparing for Climate Change: Canada's National Adaption Strategy* (CNAS)

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by email: adaptation@ec.gc.ca

Thank you for the opportunity to submit our remarks on the Discussion Paper, '*Preparing for Climate Change: Canada's National Adaption Strategy*'. We do so in our collective capacity as conservation scientists on behalf of Wildlife Conservation Society Canada.

WCS Canada (www.wcscanada.org) is a national non-government organization with a mission to save wildlife and wild places in Canada through science, conservation action, and by inspiring people to value nature. WCS scientists lead research and policy development on climate change mitigation and adaptation at regional, national, and global levels. Our expertise related to climate adaptation is in the context of land use planning, impact assessment, and science and research focused on high-integrity forests and peatlands in northern Canada. We are affiliated with global WCS programs in more than 60 countries in the world and active at the science-policy interface. We are conservation biologists, wildlife ecologists, and ecosystem scientists who are actively engaged in conservation science and related policy in species at risk conservation and conservation planning, including impact assessment.

Here we offer high-level comments in support of the strong role that can and should be played by the federal government for Canada to adapt to climate change. Our comments focus on the role of the "Thriving Natural Environment" as one of five "systems" across which Canada intends to "advance climate preparedness". In general, while we were pleased to see a larger role acknowledged in this strategy for the Natural Environment than has been evident in previous versions, this "system" should not be considered or addressed in isolation.

We have 11 specific recommendations that underscore the interrelationships between the Natural Environment and Disaster Resilience, Health and Well-Being, Infrastructure, and Economy, with actions to protect and restore the Natural Environment at the core of these issues. Reframing goals and objectives around nature-positive solutions for both climate mitigation and adaption in each of the five systems would further strengthen this strategy.

Comments on *Our Path to a Climate-Resilient Canada* (pages 5-9)

While we appreciate the emphasis on a "whole of society" approach in this document, we do not see sufficient attention to the role of the federal government in particular, which is listed as one of a number of "key groups" with a role to play. For example, the questions on p. 9 focus on other actors apart from the federal government, and the description of the federal government role makes no mention of leadership. Nor is it apparent how the federal family will achieve a whole-of-government approach that has been articulated elsewhere, e.g., in the draft *2022 to 2026 Federal Sustainable Development Strategy*. Such an approach is distinct from "whole of society" in its focus on the need to

coordinate joint activities performed by diverse ministries and agencies within the federal family to both coordinate on implementing similar mandates and resolve those that are conflicting and achieve overall coherence in decision making.

As one illustration of our point, Canada's overarching climate change plan (*Strengthened Climate Plan, A Healthy Environment and a Healthy Economy*) refers to a "climate lens to integrate climate considerations throughout government decision-making". Similarly, the 2021 mandate letter to Environment Climate Change and Canada instructs the Minister to "[w]ork with the President of the Treasury Board on the application of a climate lens to ensure climate adaptation and mitigation considerations are integrated throughout federal government decision-making". Yet the "climate lens" does not receive a single mention in this this draft climate adaptation strategy.

Recommendation #1: Make specific mention of the leadership role of the federal government on p. 6 and refer to how the mandated "climate lens" will be applied in the context of climate adaptation.

Comments on *Guiding Principles* (page 10)

The current Guiding Principles are commendable, and all should be retained. However, we argue that an additional Guiding Principle is warranted -- one that expresses a commitment to adopting nature-positive climate solutions. This 9th principle should have the following wording: "Adaptation actions will do no harm to the natural environment, and wherever possible nature-positive approaches to adaptation will be implemented." Supporting text could include: "Protecting and restoring the natural environment is an essential component to addressing the climate crisis that will also help stop and reverse the loss of biodiversity on which Canadian systems depend. Nature-Positive Climate Solutions are key to helping people and systems adapt to the effects of the changing climate, and mitigating greenhouse gas emissions to the atmosphere via continued carbon sequestration and storage in Canada's boreal forests and peatlands. Opportunities for supporting and implementing nature-positive approaches to adaptation should be prioritized." See further discussion of the distinction between nature-positive and nature-based climate solutions in our comments below about the Natural Environment section of the Strategy.

Recommendation #2: Add a ninth principle: "Adaptation actions will do no harm to the natural environment, and wherever possible nature-positive approaches to adaptation will be implemented."

Comments on *Goals and Objectives for Climate Change Adaptation in Canada* (page 13-24):

We welcome the articulation of a systems approach to the Strategy that "recognise[s] the connection and relationships among these systems and the climate change risks". To better ensure true implementation of a systems approach, the five systems should be better connected within the strategy with a separate section dedicated to describing these interrelationships and how actions for climate adaptation will be implemented and integrated across these systems (and within current government structures).

In particular, Disaster Resilience, Health and Well-Being, Infrastructure, and Economy should all be embedded within Natural Environment as none exist separate from it. Repositioning our economic,

health, and infrastructure systems within the capacity or bounds of our natural environment is critical to ensuring successful adaptation of our socio-ecological systems to climate warming and associated impacts.

Recommendation #3: Re-draw Figure 2 to place Natural Environment at its center to acknowledge its central role relative to the other “systems”.

Specific comments on these sections:

Disaster Resilience

This section needs to explicitly acknowledge the contribution of degraded ecosystems and continued loss of the natural environment across Canada to poor disaster resilience of communities and infrastructure. A National Adaptation Strategy should prioritize protection, sustainable management, and restoration for ecological integrity of the natural environment (e.g., forests, grasslands, freshwater systems, and wetland ecosystems including peatlands) to reduce the risk and impact of extreme weather events (e.g., wildfires, floods, drought) and other climate-related disasters (e.g., land subsidence from permafrost thaw, insect damage to crops, impacts on wildlife and local/traditional food sources). By sustainable management, we mean the management of cumulative impacts of development and infrastructure on natural environments.

Recommendation #4: Add an objective to this section that promote the maintenance or restoration of natural environments to bolster resilience of communities and infrastructure to climate-related disasters.

Health and Well-Being

A missing objective is one that connects the health impacts of disasters and continued degradation and loss of the natural environment across Canada. One of many examples relates to restoring ecological integrity to forests to reduce frequency of severe wildfire events that degrade air quality.

Recommendation #5: Add an objective to this section regarding the maintenance or restoration of natural environments to improve outcomes for human health and well-being in the face of climate-related disasters.

Infrastructure

The long-term climate-resilience of built infrastructure is dependent on a climate-resilient natural environment to reduce the risk and impacts of disasters caused by extreme weather events and other climate-related disasters. For example, protecting and restoring peatlands within a forest landscape can reduce the risk of wildfire impacts to infrastructure, including rail, roads, and housing.

Recommendation #6: Add an objective to this section to prioritise the protection and restoration of ecosystems across Canada in investment, policy and regulatory frameworks for climate-resilient infrastructure systems.

Natural Environment

We are glad to see the emphasis on Nature-Based Solutions (NBS) in the Box on Page 21. However, to address the joint challenges of climate change and biodiversity loss, we need more than just nature-

based solutions, but “nature-positive” solutions. Nature-positive solutions draw on our natural systems to support climate mitigation and adaptation. For example, protection of northern boreal forests and peatlands in Canada keeps vast amounts of carbon out of the atmosphere while also protecting systems of high ecological integrity that best provide opportunities for nature to adapt to changing conditions. Nature-positive solutions can also be key to helping people adapt to the effects of the changing climate; again, natural environments of high ecological integrity provide robust opportunities for people and societies to adapt to climate stressors, such as drought, floods, fires, and heat waves.

Because nature is all-encompassing — Earth, water, air, fire, living things (including people) — what counts as “nature-based” or “natural” depends largely on who is doing the counting. What does and does not count matters a lot in the context of the urgency of the climate crisis and our thus-far inadequate responses to it, as the newly released Intergovernmental Panel on Climate Change (IPCC) Working Group II report on climate change impacts, adaptation and vulnerability¹ makes abundantly clear. While some proponents of nature-positive solutions strive to ensure strong alignment of climate and biodiversity outcomes, others are content to lay claim to nature’s benefits while side-stepping responsibility for the costs to nature that they can incur. The latter camp includes proponents of biomass projects and pro-biomass policies. These initiatives often rely on trees as the principal energy source, degrading mature forests and their wildlife and undermining the role of forests in long-term carbon dioxide removal and storage. Along with bioenergy, the continuing expansion of monocultural plantations for food and fiber products is at odds with biodiversity conservation, despite the growing interest among some agribusinesses in dressing up a business-as-usual narrative to extol NBS.

To alleviate this risk, Canada must promote and implement solutions that are not just vaguely “nature-based,” but actually and demonstrably “nature-positive” — meaning they help to halt and reverse the loss of natural ecosystems — by 2030, against a 2020 benchmark, while providing climate change mitigation and adaptation benefits. In the arena of climate change, NBS and Natural Climate Solutions (NCS) now have a firm foothold, with potential for substantial impact. While a lot more finance is sorely needed, impact is the only real measure of success and failure. As Canada implements its climate ambitions, clear questions for nature-positive impacts are warranted such as: How will it help halt and reverse natural ecosystem loss? What are its climate change mitigation and adaptation benefits? And will it help reduce, or exacerbate, existing inequality, including for Indigenous Peoples and local communities?

Recommendation #7: Replace the box on p. 21 titled Nature-based solutions with one that highlights and explains nature-positive solutions. Accompany this with a shift to the whole tenor of the whole strategy to “nature-positive”.

We welcome the proposed “shift away from viewing the natural environment through a development lens, and instead through a stewardship lens”. While the draft strategy articulates this as a requirement, it is not accompanied by any acknowledgement that such a shift will require transformational change in Canada’s economic model (currently heavily dependent on resource extraction industries) and

¹ IPCC, 2022: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press.

relationship with Indigenous Peoples. Indigenous self-determination (outlined in objective 3) will require major changes at multiple government levels that resolve competing mandates and mainstream climate change and biodiversity considerations into federal government budget and policy decisions. For the economy, small incremental change will not be sufficient to maintain the integrity of the natural environment at a level needed to meet the goals of this Strategy (see our remarks below on the economy section).

Recommendation #8: Provide more explanation for how a shift from a development lens and towards a stewardship lens will be made in the context of climate adaptation.

The currently drafted “challenge” section also does not explicitly recognise the mounting evidence that as ecosystems experience ongoing degradation, they become increasingly less resilient to the effects of climate change. Continued damage and loss of intact ecosystems will exacerbate the effects of climate change, including disasters such as flooding, drought, wildfires, and permafrost thaw, while also contributing to increased climate warming through increased GHG emissions². We commend objectives 1 to 6 that will further the protection and restoration of ecosystems across Canada and suggest these goals can be strengthened by adding an additional objective with a commitment to an integrated policy framework that outlines specific actions and targets to prevent and reverse ecosystem degradation across Canada.

Recommendation #9: Add an additional objective to this section that commits to developing and implementing an integrated policy framework that outlines specific actions and targets to prevent and reverse ecosystem degradation across Canada.

The protection of high-integrity ecosystems is an essential nature-based climate solution as these systems tend to have higher resilience, can act as climate-change refugia, and offer opportunities for species to move and track suitable climate conditions³. We urge Canada to call out the protection of high-integrity forests and peatlands as a priority in the National Adaptation Strategy.

One-quarter of the world’s peatlands occur in Canada, but with this disproportionate responsibility to protect these large carbon stores for climate mitigation comes the many benefits that peatlands provide for people and nature. In addition to being the world’s largest terrestrial carbon stores, peatlands store and regulate the quality and flow of large quantities of freshwater – absorbing, filtering and slowly releasing water for use by people, plants, and animals. Peatlands are essential to helping people and wildlife cope with climate change impacts by buffering droughts and floods, maintaining water for adjacent forests, and reducing wildfire risk. We therefore recommend that the National Adaptation Strategy incorporate peatland protection and sustainable, climate-smart peatland management as a key component for climate adaptation for people and nature.

Recommendation #10: Modify objection #5 to include an integrated framework for policies that protect high-integrity forests and peatlands

² Watson, J. E. M. et al. The exceptional value of intact forest ecosystems. *Nat. Ecol. Evol.* 1–12 (2018) doi:10.1038/s41559-018-0490-x; Global Center on Adaptation. *Adapt now: A global call for leadership on climate resilience.* (World Resources Institute, 2019); Rockström, J. et al. We need biosphere stewardship that protects carbon sinks and builds resilience. *Proc. Natl. Acad. Sci.* 118, e2115218118 (2021).

³ Martin, T. G. & Watson, J. E. M. Intact ecosystems provide best defence against climate change. *Nat. Clim. Change* 6, 122–124 (2016).

Economy

The economy section is currently focused on protecting the current economic model and industries (in other words, the status quo), and adapting these industries and accompanying economic systems to the risks of climate change. To meet the needs and goals of this Climate Adaptation Strategy, a greater emphasis on the opposite is urgently needed – *the economy must adapt and change to a model that supports, protects, and restores Canada’s natural environment*. As noted above in the section on natural environment, transformational change in Canada’s economic model is required to meet the goals of this Strategy. While we recognise the need for strategic continued resource extraction to meet the needs of the transition to a ‘green economy’ (e.g., electric vehicles, including for increased public transit), the impact of these activities on high-integrity ecosystems and particularly carbon-rich ecosystems such as peatlands and forests, must be carefully assessed and considered. This section is where specific mention of the application of the “climate lens”, as per Canada’s overarching climate plan and the 2021 mandate letter to Environment Canada and Climate Change, is so vital. Strong climate-smart decisions are required, particularly if it is clear the impact of a development far outweighs the needs for the resource (e.g., large GHG emissions and carbon loss from mining in intact peatlands).

Recommendation #11: Add an objective in this section to review policies on resource extraction and other land-use change and use (e.g., converting to agricultural land, forestry, water resources) through a climate lens to ensure they do not undermine the goals of this Strategy. For example, this may include policies for forestry and mining that through their implementation, prevent the protection and sustainable management of Canada’s natural environment and especially carbon-rich peatlands and forests.

Recommendations for Priority Short-Term Actions (page 24):

We suggest that each of the proposed priority short-term actions be re-framed around nature-positive solutions and priority actions to reduce risk. For example:

- Enhance food security by assessing Canada’s food systems and identifying conditions for supply-side (e.g., prioritising nature-positive solutions for efficient production, ...) and demand-side (e.g., reduction in food loss and waste) actions, prioritising impacts on populations that face greater risks, including food-insecure communities.
- Work with communities to identify and develop nature-positive solutions to protect communities and infrastructure from climate-related disasters (e.g., identify and share information on high-risk flood zones including flood mapping and develop appropriate actions that prioritise nature-positive solutions to reduce the risk and impact of flooding; identify and prioritise actions to implement nature-positive solutions that reduce the risk, area/spread, and severity of wildfire, alongside developing tools and training to protect communities from wildfire risks).
- Integrate and prioritise nature-positive solutions in public spending and policy frameworks, including land-use planning and impact assessment, for climate adaptation and mitigation.
- Put in place effective decision-making mechanisms to incorporate nature-positive solutions in climate adaptation considerations within and between different orders of government, in order to scale up efforts and avoid piecemeal approaches to building climate resilience.

In addition, we recommend that the following priority short-term actions be added:

- Review Canada's economic model through a climate lens to identify strategies for a successful transition to an economy that prioritises the protection and restoration of the natural environment as critical for climate adaptation and mitigation, including net-zero climate targets; and
- Develop guidance and tools to incorporate climate objectives and adaptation needs into land-use planning.

We appreciate the opportunity to comment on this important strategy and welcome any further discussion.

Sincerely,



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