

CANADA'S NATURE EMERGENCY



SCALING UP SOLUTIONS
FOR LAND AND FRESHWATER

Cover photo:
Eric McLean

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Photo: M. Martin



“We need freedom to roam across land owned by no one but protected by all, whose unchanging horizon is the same that bounded the world of our millennial ancestors.”¹

— E.O. Wilson, 2006

EXECUTIVE SUMMARY

The Nature Emergency

There are currently two major environmental crises facing the planet: climate change and the catastrophic loss of nature. Around the world the health of ecosystems is declining and species populations are in freefall.² This decline in the state of nature and corresponding loss of wildlife constitutes a Nature Emergency that poses a significant risk to all of us and our children.

Photo: John Westrock



In Canada we are not immune to the global **Nature Emergency**. In 2017, WWF Canada found that since 1970 half of all monitored species in Canada have declined. Of those, half declined on average by more than 80%—a shocking collapse of birds, fish, mammals, reptiles, and amphibians.³ As species decline, the capacity for ecosystems to provide clean air, water, food, climate stabilization, and other essential services declines as well. It is in all our best interests, and in the best interests of future generations, for Canada to take swift and large-scale action to protect and restore nature.

The recent report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystems Services (IPBES) is the latest in a string of reports confirming that **habitat degradation as a result of human land use change is the foremost driver of nature's decline in terrestrial regions**.⁴ This means protecting and restoring habitat must be the cornerstone strategy to solve this crisis. Protected and conserved areas are the primary policy tools to safeguard habitat, and evidence shows that, if they are well-designed and managed, they work.⁵ The good news is that Canada has focused significant effort and resources on protected areas in the last few years, which will help us deliver on our 2020 nature conservation commitments, and, hopefully, set the stage for scaled-up action beyond 2020.

Photo: Nick Hawkins





Recent progress

In 2010 Canada endorsed an interim target of protecting at least 17% of our land and inland waters by 2020 and improving the quality of our protected areas as part of the UN's *Convention on Biological Diversity* (CBD) Strategic Plan. Over the past three years, the federal government has convened and led a nation-wide effort to achieve this target and **invested more than \$1.3 billion over five years in nature conservation**. This included creating the Canada Nature Fund to support conservation action by provincial, territorial, and Indigenous governments, conservation organizations, and other partners.

Since 2016 the proportion of protected land and inland waters in Canada has expanded from 10.6% to 11.8%. The federal government has convened provincial, territorial, Indigenous governments and other partners through the “Pathway to Canada Target One” process and made the biggest federal conservation investment in Canadian history. This has set the stage for accelerated conservation action moving forward.

As a result of this growing momentum, conservation work is ramping up across the country. For example, the Canadian Parks and Wilderness Society (CPAWS) is working on-the-ground with Indigenous partners, public governments, other conservation organizations, and industry partners to advance protected area proposals. The new federal funding will roll out over the next few months and help support this kind of grassroots work.

CPAWS is now hopeful that Canada will achieve our 17% land protection target by the end of 2020 or shortly thereafter, setting the stage to look to the future.

Photo: Sergey Pesterev



Photo: Richard Lee

Canada's leadership opportunity

Canada is well positioned to assume the mantle of conservation leader for the next decade. By hosting an international Nature Champions Summit in April 2019, we have signalled to the world that we are prepared to step up.

Countries, including Canada, are now discussing what the next decade's strategic plan under the UN *Convention for Biological Diversity* should include. To achieve the vision of the Convention, which is "living in harmony with nature," countries need to set ambitious conservation targets based on what nature needs to sustain all life, including our own. A growing number of international and Canadian scientists, citizens, and organizations are now recommending that the plan include a goal of **protecting and restoring half the earth, with a milestone target of protecting at least 30% of land, freshwater, and ocean by 2030⁶.**

As the second largest country in the world, Canada stewards 20% of the Earth's wild forests, 24% of its wetlands, and almost one third of its land-stored carbon. We have some of the world's biggest remaining wild rivers, the largest remaining natural terrestrial mammal migration, and billions of birds nest in Canada's Boreal and temperate forests, tundra, wetlands and grasslands. Canada's lands and waters have sustained Indigenous Peoples for millennia and provide natural resources that continue to play an important part in Canada's economy. We have been identified by scientists as a potential "conservation superpower".⁷

Photo: Terra Firma



CPAWS is recommending a series of ambitious and achievable steps that Canada can take to become a true global conservation leader and to effectively conserve our treasured wildlife and wilderness here at home:

Recommendations:

- 1 Governments should recognize that Canada is facing a **Nature Emergency** as well as a **Climate Emergency**, and that together these threaten the wellbeing of all Canadians;
- 2 Governments should complete all existing protected area proposals in a timely way;
- 3 The federal government should champion a goal of protecting and restoring at least half the Earth, and a milestone target of protecting 30% of land and inland waters by 2030, in the next strategic plan under the UN Convention on Biological Diversity, and commit to these targets at home;
- 4 Governments should implement this 2030 target through inclusive, participatory regional planning, including Indigenous-led land use planning, informed by science and Indigenous knowledge. This planning should focus on ensuring protected area networks are well-connected, representative of all ecosystem types, and include Key Biodiversity Areas,⁸ encompass culturally significant spaces, and are consistent with international standards;



Photo: B. Lumppini

Photo: Ray Hennessy

- 5 Governments should commit to proactive, increased, and sustained funding to deliver on the 2030 targets and to support protected areas management, including through new conservation finance mechanisms;
- 6 Federal, provincial, and territorial governments should establish and manage protected areas in partnership with Indigenous Peoples, support Indigenous protected areas, and apply the concept of ethical space put forward by the Pathway to Target One advisory bodies;
- 7 Governments should incent natural solutions to climate change, and recognize that protecting and restoring nature can help mitigate climate change impacts;⁹
- 8 Building on the Pathway to Target One process, the federal government should continue to convene jurisdictions and civil society, including Indigenous nations, to work together to deliver on the 2030 targets in a coordinated way, including through advisory panels;
- 9 Governments should recognize and adopt the “three conditions” implementation framework that recognizes different conservation priorities in different regions of the country; and
- 10 Governments should work together to develop connectivity strategies at regional, national, and continental scales to ensure wildlife can move unimpeded through the landscape in response to changing climatic conditions.

Photo: Annie Spratt



THE NATURE EMERGENCY

The dire state of the planet's life support system is now clear. Around the world the health of ecosystems is declining, and species populations are in freefall.¹⁰ This decline in the state of nature and corresponding loss of wildlife constitutes a **Nature Emergency** that poses a significant risk to all of us and our children.

Photo: Levi Saunders



In May 2019, the United Nations Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (“IPBES”) – released a global “State of Nature” report with findings so stark that they immediately captured the attention of the global media. The report, which synthesized 50 years of research from nearly 15,000 studies, and included both Indigenous and local knowledge, concluded that biodiversity **“is declining faster than at any time in human history”** and **“over a million species are now facing extinction,”** threatening the delicate balance of life on Earth. The assessment also confirmed that habitat loss and fragmentation due to human land use is the primary driver of this Nature Emergency.¹¹

The co-chair of the IPBES, Dr. Josef Settele, noted:

*...ecosystems, species, wild populations, local varieties and breeds of domesticated plants and animals are shrinking, deteriorating or vanishing. The essential, interconnected web of life on Earth is getting smaller and increasingly frayed. This loss is a direct result of human activity and constitutes a direct threat to human well-being in all regions of the world.*¹²

Canada is not immune to this **Nature Emergency**. In 2017, WWF Canada released its *Living Planet Report Canada*, which documented that half of all monitored vertebrate species populations are declining. Furthermore, half of those populations have on average decreased by a shocking 83% since 1970.¹³

The scale and urgency of this Nature Emergency can no longer be ignored. Canada, and Canadians, *must* act — and must act NOW.

Photo:
Elizabeth Meyers



Climate Change and Biodiversity Loss Go Hand in Hand

The IPBES global assessment identified climate change as the third most significant driver of the ongoing loss of nature. A recent global climate assessment warns that we are already seeing the consequences of 1°C warming.¹⁴ **If we are unable to reduce GHG emissions and global temperatures rise above 1.5°C, we will witness the collapse of key ecosystems.**

Biodiversity loss and climate change are interconnected in several ways, for example:

- Changes in climate are impacting Canadian ecosystems through changes in temperature and precipitation. As these processes intensify our ecosystems are also changing. In the boreal forest, for example, often deciduous rather than coniferous trees are growing back after fires¹⁵. This impacts other species within the ecosystem. Some may move to more appropriate places or, if possible, seek to adapt in other ways; however, for many, this will lead to a contraction in their range. For others, especially those species already made vulnerable due to existing habitat loss or ecosystem degradation, the combined pressures may lead to the loss of those of species in certain places, and over time, to their extinction in Canada.
- The degradation of ecosystems and related loss of biodiversity from non-climate related causes will make it harder for humans to adapt to climate change. For example, clearing wetlands means a loss of ecosystems that absorb, slow and clean water; increasingly important functions in places where flooding events are likely to increase as a result of climate change.
- Many degraded ecosystems are more vulnerable to natural disturbance events, such as fires or insect infestations, which are more likely to occur, as the climate changes. These events may increase GHG emissions from ecosystems that had been sequestering or storing carbon over long periods of time, thereby further exacerbating the climate challenge.
- The human activities that degrade the ecosystem result in immediate GHG emissions and often habitat loss, thereby exacerbating biodiversity and climate challenges simultaneously.

The bottom-line is straightforward: biodiversity loss and climate change are tied together, and we cannot deal with one crisis without dealing with the other. The good news is that there is an increasing awareness in Canada that we must address climate change and biodiversity loss. As such, nature-based climate solutions, or solutions that both have a positive climate mitigation or adaptation and biodiversity value, are available. By reducing ecosystem degradation and loss in Canada we can reduce GHG emissions and help ecosystems and humans be more resilient to climate change.¹⁶

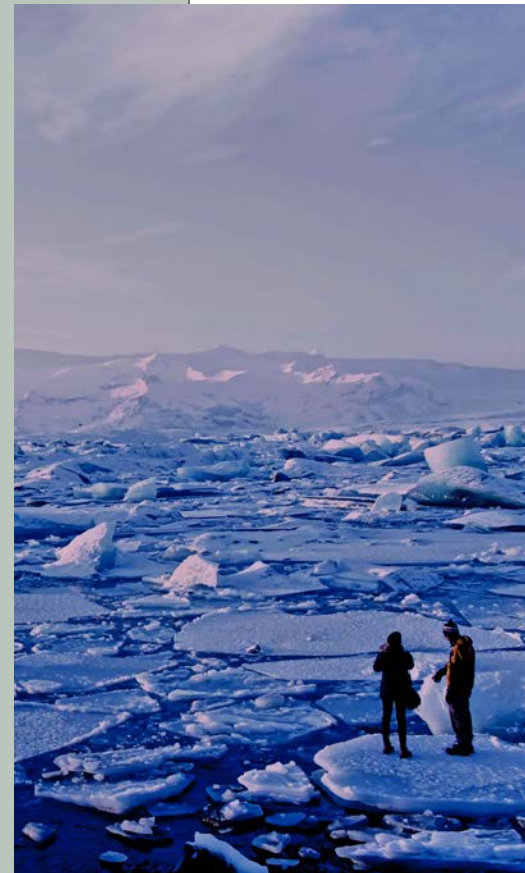


Photo: Roxanne Desgagnes

Why Protected Areas?

The IPBES report confirmed that human-caused land use change—i.e. habitat loss and degradation—is the largest direct driver of biodiversity loss on land. This means that protecting and restoring habitat must be at the heart of any successful strategy to reverse nature's decline.

What is Biodiversity?

Biological diversity or biodiversity is the "...natural variety and variability among living organisms, the ecological complexes in which they naturally occur, and the ways in which they interact with each other and with the physical environment"¹⁷.

What are the Benefits of Nature and Biodiversity?^{18,19,20}



Clean air

Plants not only ensure we have a breathable atmosphere by producing oxygen and absorbing carbon dioxide. Many tree species are also excellent natural filtration systems that help reduce air pollution in urban areas.



Pollination and seed dispersal

Bees, birds, butterflies, reptiles, and mammals play a vital role in spreading pollen and in dispersing seeds.

Many hardwood tree species that efficiently absorb carbon dioxide from the atmosphere rely on large fruit-eaters, like tropical tortoises and spider monkeys, to disperse their seeds.



Good soil quality

Soil quality is maintained by bacteria, fungi, algae, and small invertebrates. They bring oxygen down through the soil, produce nutrients, and help distribute them.



Source of food, medicines

Biodiversity is the ultimate source of food, nutrients and medicines. All domesticated crops and animals originated from nature. Improvements to their productivity, resilience to drought or diseases is dependant on their wild relatives. Many existing medicines incorporate natural ingredients from plants (50,000 to 70,000 species). Should any of these plants become extinct, medicinal cures would suffer. Nature harbors stocks of wild food for consumption by people and animals.

Photos: Mila Young, Maarten van der Heuvel, Boris Smokrovich, Steffi Pereira





Protection against extreme weather and natural disasters

Biodiversity protects us from extreme weather and natural disasters in many ways. Coral reefs and mangrove swamps provide protection from cyclones and tsunamis for those living on coasts.

Natural vegetation absorbs the impacts of floods and provide space for flood waters to flow without causing major damage. Forests reduce the incidence of landslides.



Removal of waste

Organic matter from dead plants and animals is degraded and decomposed by different organisms in the ecosystem. There would simply be no space for living organisms if bacteria and fungi have not been degrading dead organic materials for millions of years, breaking them down in the soil and turning them into nutrients.



Photos: Max Larochelle, Robert Bye, Maria Teneva, Cham Duong



Health and wellbeing values²¹

Nature affects and helps improve mental wellbeing, reduces stress, anxiety, and vitamin D deficiency. It also promotes a healthy lifestyle and helps the physical development of children and teens. Nature also provides unforgettable opportunities for tourism and recreation.



Spiritual, cultural, educational, and aesthetic values

Nature is a source for artistic inspiration, knowledge, spiritual, and religious experience

Photo: Paxson Woelber

Well-designed and managed protected areas are the best scientifically proven tools for conserving nature and play an important role in our wellbeing.²² By conserving healthy ecosystems they sustain wildlife and protect the natural beauty of our country. Protected areas provide us with clean air, fresh water, and healthy soils. They protect communities against the negative impacts of climate change, such as floods and droughts, and provide a safe haven for plants and animals to adapt to a changing environment. They also support jobs in local communities.

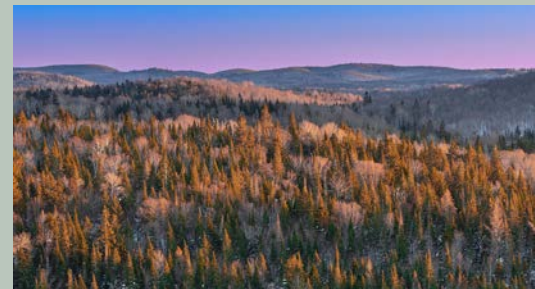
What is a Protected Area?

A protected area is “a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.”²³

Global Benefits/Value of Protected Areas^{24, 25}

- Nature conservation: diverse genes, healthy species and populations, and intact ecosystems
- Purification and detoxification of water, air, and soil
- Preserve and strengthen Indigenous knowledge, support Indigenous livelihoods
- Lessen impact of climate change: allow space for plants and animals to adapt, shield against extreme weather effects, prevent natural disasters like landslides by maintaining healthy soils and prevent natural disasters like floods by maintaining healthy watersheds and wetlands
- Economic benefits: jobs, income from tourism
- Science, research, and education
- Source of clean air
- Food and medicine: wild plants, wild game, fish, herbs and sources of medicines
- Cultural, spiritual, and religious values
- Source of clean drinking water
- Health and wellbeing benefits: promoting a healthy lifestyle, source of tranquility, aesthetics, inspiration for arts
- Investment in the future: leaving part of our planet untouched for future generations
- Tourism: sightseeing, enjoying beauty, photo ops, family bonding, celebrating our natural and cultural heritage
- Intrinsic value

Photos: Jon Eckert, JP Valery, Meng Ji



Protected areas are also places where people can connect with nature. Exploring a protected area offers the opportunity to experience and learn about nature, and supports healthy, active lifestyles. Spending time in nature has been linked to lower anxiety levels, lower healthcare costs, and increased productivity.^{26, 27}

Canada Takes Significant Steps Forward

In response to a CPAWS-led campaign, over the past four years the federal government has stepped forward to lead and finance a Canada-wide effort to expand and better manage our protected areas network.

The United Nation's *Convention on Biological Diversity* ("CBD"), a multilateral treaty that came into force in 1993, provided a major political driver for this progress. In 2010, in Nagoya, Aichi Prefecture, Japan, a *Strategic Plan for Biodiversity* was adopted that includes 20 time-bound, measurable targets to be met by 2020 (the "Aichi Targets").²⁸

Aichi Target 11 focused on protected areas:²⁹

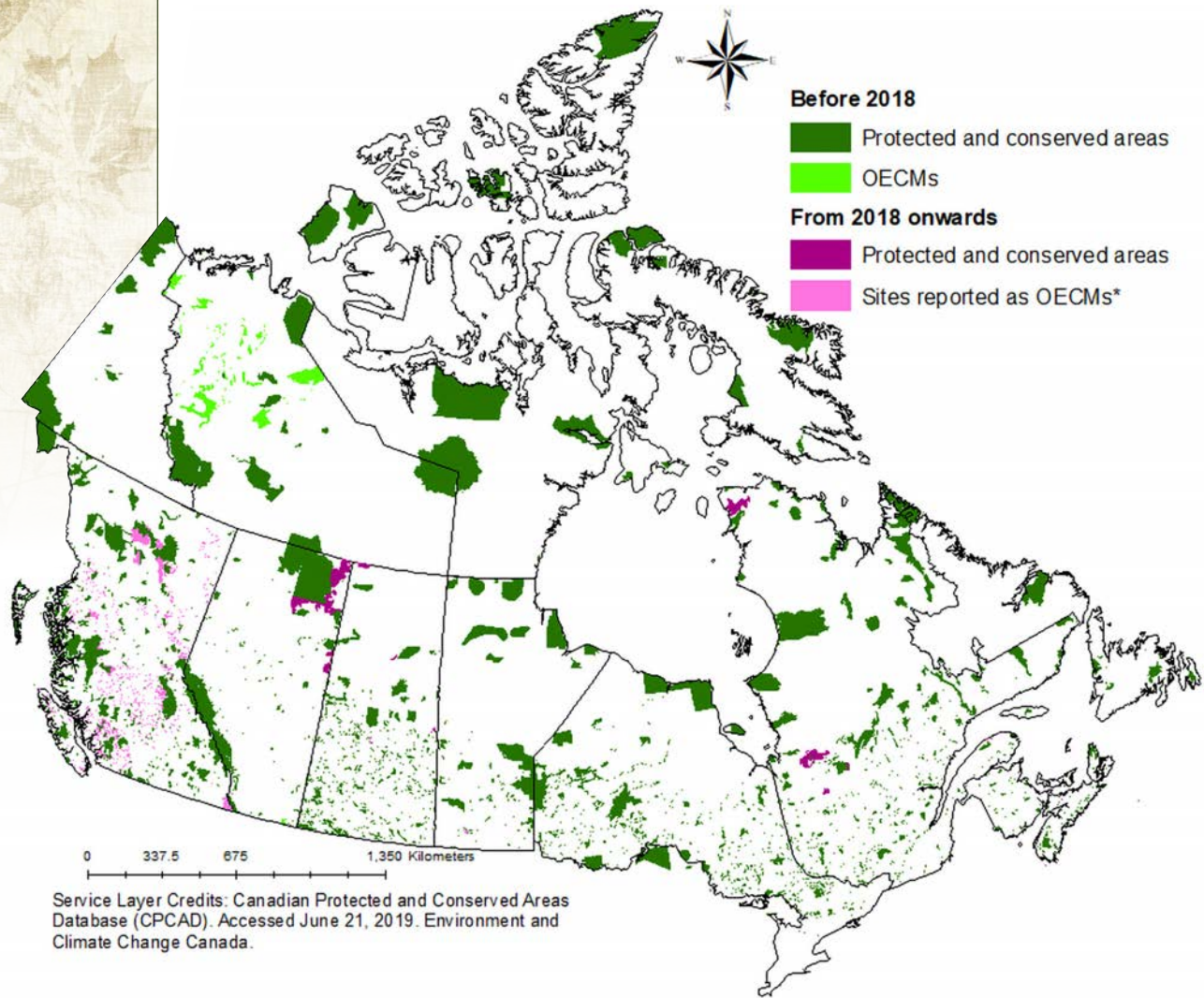
*By 2020, at least 17 per cent of terrestrial and inland water areas, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.*³⁰

As a signatory to the CBD, Canada endorsed the Aichi targets and in 2015 approved our own nature conservation targets to support these global commitments, including a national target of protecting at least 17% of our land and freshwater by 2020.³¹ In 2016 the new federal government committed to delivering on and going well beyond this target. In 2017, for the first time ever, they convened provinces, territories and Indigenous Peoples to work together towards completing an effective conservation network for Canada through the Pathway to Canada Target One process.³²

Since 2016 the proportion of land and inland waters in Canada has expanded from 10.6 to 11.8% (see figure 1 on next page).



Photo: Ian Froome



*Figure 1. Progress to 2020 in Canada. This map was produced using data from The Canadian Protected and Conserved Areas Database (CPCAD) released by Environment and Climate Change Canada June 21, 2019.³³ Protected and conserved areas that are classified as “terrestrial biomes” and that are formally counted towards Aichi targets were selected and are shown here. *Note, CPAWS has concerns that some of these areas do not meet minimum standards of protection and is in the process of assessing them.*

In 2018 the federal government invested \$1.3 billion to support protected areas and species at risk — the biggest single conservation investment in Canadian history. It included a new \$500 million “Nature Fund” which is leveraging additional funding from private sources and supporting action by provincial, territorial and Indigenous governments and non-government partners. This cost-shared fund is critically important since provinces and territories have jurisdiction over most of Canada’s landscape and will roll out over the next few months.³⁴

As a result of this growing momentum, conservation work is ramping up across the country. CPAWS is working on-the-ground with Indigenous partners, public governments, other conservation organizations and industry partners to advance protected area proposals (Table 1).

Table 1. Advancing Conservation Work on the Ground (update from CPAWS's Parks Report 2018). (Note: CPAWS currently does not work in Nunavut or PEI).

Prov/Territory	Name	Approx. Area (km ²)
Newfoundland and Labrador	Eagle River	3,000
	Natural Areas Systems Plan	TBD
Nova Scotia	Nova Scotia Our Parks and Protected Areas Plan	850
New Brunswick	Restigouche Wilderness Waterway	300
	Protection for identified high value ecosystems – proposed for 2020 protection, including peatlands, watersheds, old forest communities, coastal areas, and provincially significant wetlands	3,650
Quebec	Regional proposals for new protected areas, including Nunavik Consensual Sites, Eeyou Istchee, Innu Sacred Sites, Pipmuacan, Magpie River watershed, Lac-Walker National Park, Expansion of the Iles-de-Boucherville National Park and protection of Sainte-Thérèse Island, and Bas-Saint-Laurent candidate protected areas.	125,000
	Permanent protection for the for Noire and Coulonge River Watersheds candidate protected areas	1,500
Ontario	North French River proposed protected area	5,070
	Algonquin Park – phasing out logging	3,400
Manitoba	Proposed Polar Bear Provincial Park (study area)	29,000
	Seal River Watershed Conservation Initiative	50,000
	Fisher River Cree Nation Conservation Areas Initiative (study area)	11,000
Saskatchewan	SK River Delta proposed protected area (split between the Suggi/Mossy River and the Lobstick)	4,650
	Athabasca Denesuline (three sites – Tazin Lake, Misaw Lake, and Chappuis-Fontaine Lakes)	5,920
	Protection of Govenlock, Nashlyn and Battle Creek Community Pastures	850
	Saskatoon Swale -- part of our Municipal Fund for Biodiversity pilot project	3
Alberta	Bighorn Backcountry	6,700
	Bistcho caribou range proposed IPCA with the Dene Tha' First Nation	6,634
British Columbia	South Okanagan-Similkameen proposed National Park Reserve	275
	Dene K'éh Kusān – Kaska proposed provincial conservancy	39,000
Northwest Territories	Candidate protected areas, including Thaidene Nene, Ka'a'gee Tu, Samba K'e, Ejie Tue Ndade, Lue Tue Sulai, Dinaga Wek'ehodi, and Ts'ude niline Tu'eyeta	65,339
Yukon	Peel River Watershed Land Use Plan (proposed permanent protection)	37,087
TOTAL		399,228

Protecting the areas listed above would increase the proportion of Canada's protected land-base to almost 16%—well within reach of our 17% commitment. CPAWS is now hopeful that Canada will achieve our 17% land protection target by the end of 2020 or shortly thereafter, setting the stage to look to the future.

Indigenous-Led Conservation

Indigenous-led conservation is very important for nature and for the creation of protected areas globally. In Australia, for example, almost half of the protected areas are made up of Indigenous Protected Areas ("IPAs") allowing the country to achieve its 17% conservation target in 2014.³⁵

Through the Pathway to Canada Target One process, two bodies were formed to advise governments on how to deliver on the 17% protection commitment: a National Advisory Panel and an Indigenous Circle of Experts. These panels

were made up of Indigenous and non-Indigenous Peoples, and both made extensive recommendations about how to advance Indigenous protected and conserved areas in Canada and deliver on our conservation commitments in the spirit and practice of reconciliation.^{36, 37}

Indigenous protected and conserved areas are one of the biggest opportunities to advance conservation in Canada. Indigenous nations are making decisions to protect ecosystems on their traditional lands in ways that ensure cultural continuity and allow for conservation compatible economic development. One current example is Thaidene Nene National Park Reserve and Territorial Protected Area in the Northwest Territories, which is in the final stages of establishment. Thaidene Nene—the

Land of the Ancestors—will cover over 2.6 million hectares of boreal forest and tundra and has significant value for protecting large areas of caribou habitat adjacent to lands that are in high demand for infrastructure and industrial development. Lutsel K'e Dene First Nation (LKDFN) have already put in place an Indigenous Guardians program (the Nihat'Ni Dene) and a proposed trust fund would support their co-management of the area, and help develop economic benefits from the parks.

Canada and the provinces and territories have exciting opportunities to build upon this accomplishment. One key factor for this to be successful is the continued investment into Canada's Nature Fund and Indigenous Guardians programs, which will contribute to achieving Canada's conservation targets and to reconciliation between Indigenous and non-Indigenous Peoples and with the Earth.



Photo: James Wheeler

What's Next?

In late 2020, the signatories to the CBD will meet in Kunming, China to decide on a new strategic plan and set targets for the next decade. Discussions are already underway at the international level and in Canada to identify what the next nature conservation targets should be. This offers a major opportunity for Canada to champion ambitious protection targets for the next decade based on what nature needs to thrive and sustain people.

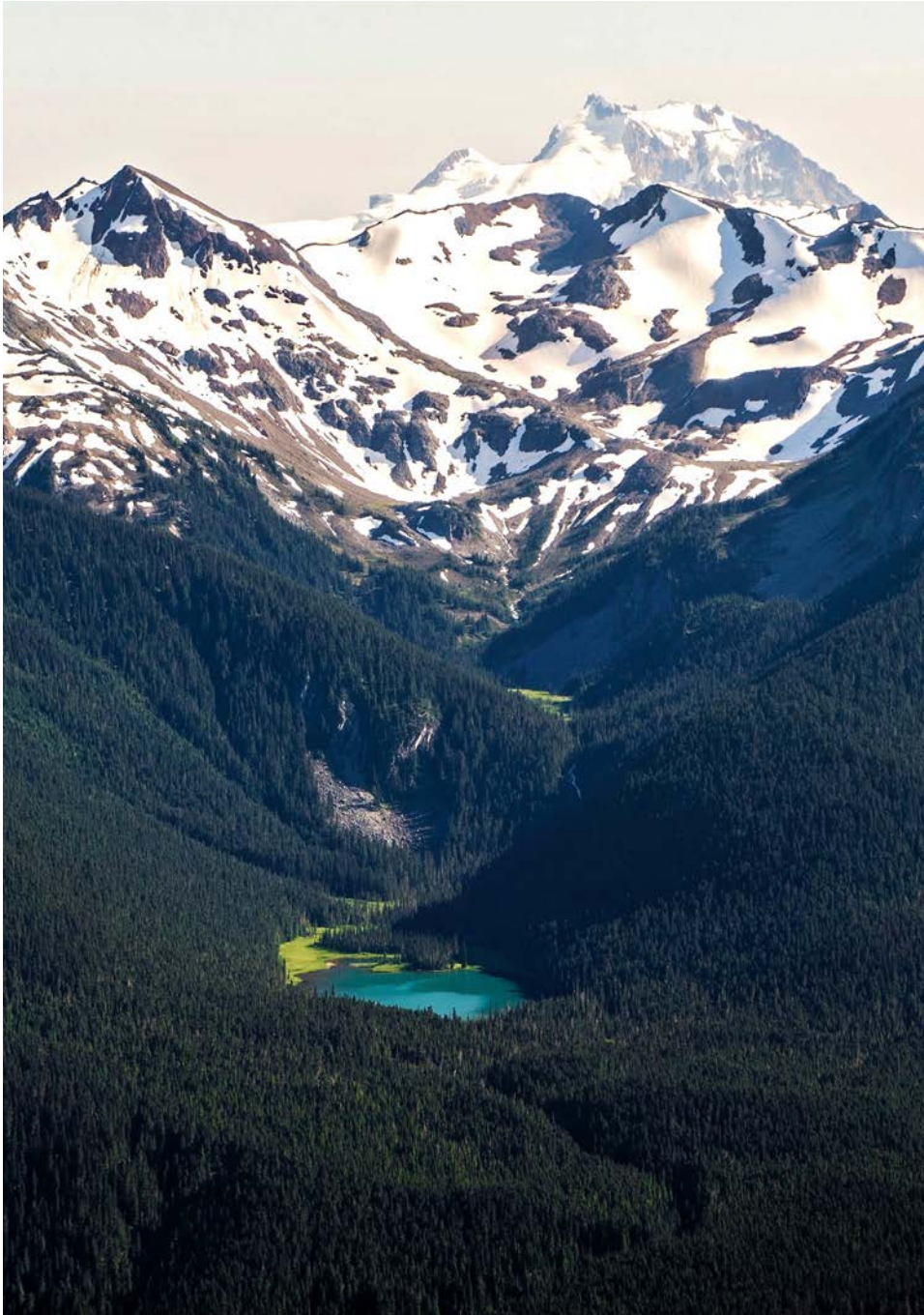


Photo above: Terra Firma; photo left: Carly Tobias

HOW MUCH IS ENOUGH?

Protecting 17% of land and inland waters by 2020 was politically negotiated as an interim target to motivate progress and was not based on any scientific studies or evidence.

In the wake of stark evidence that life on Earth is collapsing under human pressures, it is critical that targets in the next plan be based on the best evidence of what's needed to save nature and sustain people.

Photo: Mike Benna



“The most logical way to avoid the approaching crisis is maintaining and restoring at least 50% of the Earth’s land area as intact natural ecosystems.” (Dinerstein et al., 2019)³⁸

Scientists have described the 17% protection target as “...woefully below what the results of most scientific studies show are necessary to meet widespread conservation goals such as maintaining viable populations of native species, representing ecosystems across their range of variation, and promoting resilience of ecosystems to environmental change.”³⁹

A recent global survey of conservation scientists conducted by the IUCN World Commission on Protected Areas found strong agreement that the existing area-based targets of 17% for land and inland waters and 10% for oceans are insufficient to halt biodiversity loss and should be scaled up considerably.⁴⁰



Based on the assembled evidence, more and more scientists are concluding that protecting and restoring about half of the Earth’s land and freshwater area is necessary to sustain nature as well as the essential ecosystem services it provides to people.^{41, 42}

The proposal to conserve half the Earth’s land base extends back to at least 1972 in the scientific literature.⁴³ Since then, a variety of different scientific analyses have similarly led to the conclusion that this scale of land protection is necessary.⁴⁴



Photo above: James Wheeler; photo left: Kevin Noble

A post 2020 “Global Deal for Nature”

In 2017, a group of leading scientists proposed a new “Global Deal for Nature” that included protecting half the earth. They assessed the percentage of land still in its natural state in each of the world’s 846 ecoregions and found that enough land remains intact or semi-intact that a goal of protecting half the earth is possible, recognizing that some areas require extensive restoration. They also found that in almost 100 ecoregions governments and communities have already set aside more than half of land for nature protection and to conserve ecosystem services, providing a hopeful model for the rest of the world.⁴⁵



Photo: Ben Waardenburg

“Given the evidence to date and the implications of an underestimate, we encourage governments to set minimum targets of 30% of the oceans and land protected by 2030, with a focus on areas of high biodiversity and/or productivity, and to aim to secure 50% by 2050. This will be extremely challenging, but it is possible, and anything less will likely result in a major extinction crisis and jeopardize the health and wellbeing of future generations.” (Jonathan Baillie, National Geographic and Ya-Ping Zhang, Chinese Academy of Science, 2018)⁴⁶

"I am convinced that only by setting aside half the planet in reserve, or more, can we save the living part of the environment and achieve the stabilization required for our own survival."
(E.O. Wilson, 2016)⁴⁷

In 2019, a follow up paper in *Science Advances* put forward a detailed plan to achieve this "Global Deal for Nature," focused on saving the diversity and abundance of life on Earth, securing essential ecosystem services, and tackling catastrophic climate change. At the heart of the plan is the designation of at least 30% of the Earth in protected areas by 2030, with an additional 20% of Earth designated as climate stabilization areas that would safeguard forests, wetlands, and other carbon-rich ecosystems and remove carbon from the atmosphere through ecosystem restoration.⁴⁸ The paper also emphasizes the critical importance of supporting Indigenous Peoples' efforts to conserve the ecological and cultural values of their lands.

How such a target is implemented will be key to successfully achieving conservation outcomes. Identifying the right areas for protection and ensuring that lands outside protected and conserved areas are also managed sustainably will be essential. Implementing conservation targets in regionally appropriate ways that reflect the knowledge, rights and interests of Indigenous and local communities is also critical to success.



Photo: Terra Firma

Photo: Eric Carlson





Photo:
Kalen Emsley

Implementing these ambitious protection targets while supporting the needs of people will take significant work, but evidence shows it is possible. For example, using systems modeling, scientists demonstrated that by changing how and where food and energy are produced it is feasible to maintain half of most of the world's biomes in a natural state while also meeting the Paris Climate agreement greenhouse gas emissions reductions and the food and energy needs of expanding human populations. However, it will require overcoming significant economic, social and political obstacles to shift away from business as usual scenarios.⁴⁹

In summary, there is a growing body of evidence that protecting half the earth is urgently needed and is possible. This should be embedded in the coming decade's biodiversity targets along with a milestone target of protecting at least 30% of the landscape by 2030.

Canadians Support Protecting Half

Globally, as well as in Canada, citizens have consistently expressed support for protecting about half the earth—both land and ocean—in order to conserve nature.

"We must materially shift our protected areas target to protect at least half of the world, land and water, in an interconnected way to conform with what conservation biologists have learned about the needs of nature." (Harvey Locke, 2013)⁵⁰

A 2014 global public opinion survey conducted in seven countries around the world by the Zoological Society of London (“ZSL”) found that citizens support protecting between 40 and 70% of their country’s lands.⁵¹ In 2018, this same survey conducted in Canada by the University of Northern British Columbia and CPAWS and published in the scientific journal, *Facets*, found that, **when asked how much of our country and the world should be protected, the most common response was 50%**. It is worth mentioning that this was an unprompted response to an open-ended question. The average of all responses was 45 percent of Canada’s landscape and 47 percent of the planet’s should be protected.⁵²

When Canadians were asked what they thought the barriers are in Canada to increasing protected area targets beyond the current 17% land and 10% ocean protection, they identified a lack of understanding of the value of protected areas, insufficient funding, and low government priority as the top three. Interestingly, few respondents (17%) thought that protected areas cost too much, and only 2% thought that the current target should not be increased (see Figure 2).

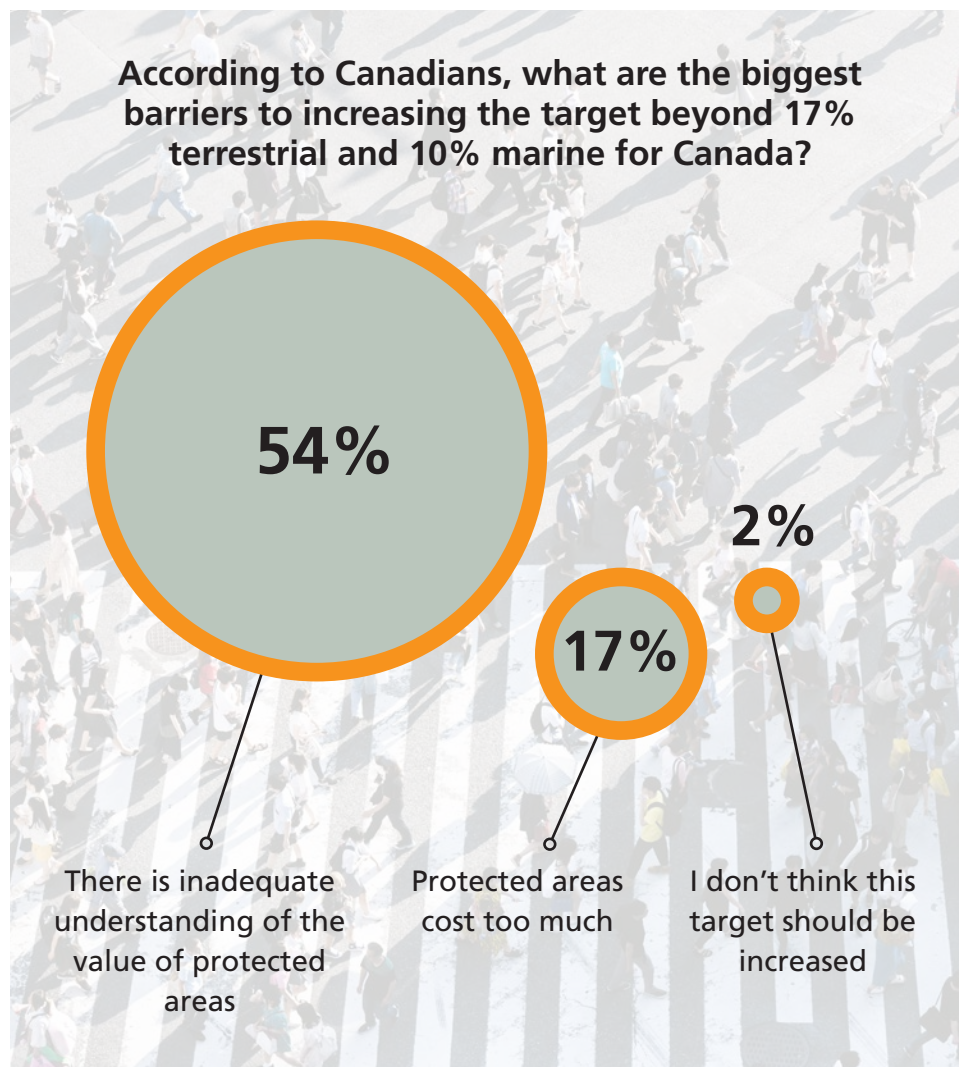


Figure 2. *The Biggest Barriers to Increasing Conservation Targets in Canada.* (Wright et al., 2019)

Framework for Implementing Large Conservation Targets

Implementing large area-based conservation targets can seem daunting, particularly in heavily settled areas where most of the landscape has already been transformed from its natural state to other important uses like agriculture and urban infrastructure. To address this challenge, the IUCN World Commission on Protected Areas is developing a global implementation framework that recognizes that implementation of large area-based conservation targets needs to be customized to reflect different land use histories.⁵³

The framework identifies three broad categories of landscape condition based on intensity of human settlement and use—Cities and Farms, Shared Landscapes, and Large Wild Areas—as well as suites of conservation actions most relevant in each category.

Photo: Dan Ritson



“When establishing global targets, as at Nagoya, it would be prudent to consider the range of evidence based on estimates of “how much is enough” from many regions and set a target on the high side of the median as a buffer against uncertainty. From this precautionary perspective, 50%—slightly above the mid-point of recent evidence-based estimates is scientifically defensible as a global target.” (Noss et al, 2012)⁵⁴

As the second largest country in the world, Canada has all three of these conditions. In southern Canada private lands predominate and most of the landscape has been transformed to agricultural or urban land uses. In these areas, conservation actions need to focus on saving the remaining fragments of nature, securing endangered species, and increasing ecological restoration efforts.

In the mid-regions of Canada the landscape is shared by Indigenous and resource sector-dependent communities, forestry, mining and oil and gas development. There is still enough wild space to identify and establish large, ecologically representative and well-connected networks of protected and conserved areas and integrate them into the broader landscape. The focus should be on maintaining and restoring viable populations of native species (e.g. caribou) and ecological processes based on science and Indigenous knowledge, which will likely require protection of 25 to 75% of each ecoregion or watershed, depending on the area. Participatory landscape-level planning should be used to identify the most important areas to conserve and to work to integrate ecological, social, cultural and economic values.

The northern Boreal and Arctic regions of Canada are still largely ecologically intact, but are experiencing enormous stress from climate change impacts, as well as development pressures. Indigenous communities steward landscapes that still sustain free-ranging herds of caribou, intact predator-prey relationships,

Photo: Annie Spratt



and massive stores of biological carbon. These represent some of the biggest remaining wild ecosystems left on Earth. Indigenous-led land use plans, like the Dehcho Land Use Plan in the NWT, and the Peel River Watershed plan in the Yukon, provide models for how proactive planning, led by Indigenous Peoples, can safeguard the integrity of these globally significant ecosystems, as well as the wildlife populations and Indigenous cultures they support.

This “three conditions” framework can help demonstrate that large area-based targets are achievable and can and should be implemented in ways that reflect the needs and realities on-the-ground.



Photo: Yuri Peepre

“It would be prudent for planners everywhere to strive to preserve 50% of the total environment as natural environment.”
(Odum and Odum, 1972)⁵⁵

RECOMMENDATIONS

The next ten years in Canada will be crucial for protecting nature and tackling climate change.

Ninety percent of Canada's land and inland waters are managed by federal, provincial, territorial and Indigenous governments. It is in the public interest for all Canadian governments to recognize and acknowledge that we face a **Nature Emergency** on par with the **Climate Emergency**, and to scale up their action on both crises in a coordinated way.

Photo: WR



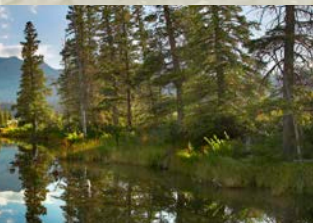
For Canada to become a true conservation leader, we recommend the following:

- 1** Governments should recognize that Canada is facing a **Nature Emergency** as well as a **Climate Emergency**, and that together these threaten the wellbeing of all Canadians;
- 2** Governments should complete all existing protected area proposals in a timely way;
- 3** The federal government should champion a goal of protecting and restoring at least half the Earth, and a milestone target of protecting 30% of land and inland waters by 2030, in the next strategic plan under the UN Convention on Biological Diversity, and commit to these targets at home;



Photos: Terra Firma

- 4** Governments should implement this 2030 target through inclusive, participatory regional planning, including Indigenous-led land use planning, informed by science and Indigenous knowledge. This planning should focus on ensuring protected area networks are well-connected, representative of all ecosystem types, and include Key Biodiversity Areas,⁵⁶ encompass culturally significant spaces, and are consistent with international standards;
- 5** Governments should commit to proactive, increased, and sustained funding to deliver on the 2030 targets and to support protected areas management, including through new conservation finance mechanisms;
- 6** Federal, provincial, and territorial governments should establish and manage protected areas in partnership with Indigenous Peoples, support Indigenous protected areas, and apply the concept of ethical space put forward by the Pathway to Target One advisory bodies;



- 7** Governments should incent natural solutions to climate change, and recognize that protecting and restoring nature can help mitigate climate change impacts;⁵⁷
- 8** Building on the Pathway to Target One process, the federal government should continue to convene jurisdictions and civil society, including Indigenous nations, to work together to deliver on the 2030 targets in a coordinated way, including through advisory panels;
- 9** Governments should recognize and adopt the “three conditions” implementation framework that recognizes different conservation priorities in different regions of the country; and
- 10** Governments should work together to develop connectivity strategies at regional, national, and continental scales to ensure wildlife can move unimpeded through the landscape in response to changing climatic conditions.



Photos: Terra Firma

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Photo: TJ
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About CPAWS

The Canadian Parks and Wilderness Society (CPAWS) is Canada's only nationwide charity dedicated solely to the protection of our public land and water, and ensuring our parks are managed to protect the nature within them. Since 1963 we've played a lead role in protecting over half a million square kilometres—an area bigger than the entire Yukon Territory! Our vision is that Canada will protect at least half of our public land and water so that future generations can benefit from Canada's irreplaceable wilderness.



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