

Canada's environmental and biodiversity crises require immediate and effective solutions

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Abstract

We live in a time where anthropogenic environmental change and biodiversity loss are pervasive and persistent problems around the globe. Here, we share our Canadian perspectives on what we consider to be a desperate and urgent search for effective solutions. Despite the valiant efforts of many individuals and organizations, we continue to fail in this regard. Solutions that are durable and effective are entirely possible if we take actions to identify what works and then to implement those solutions at relevant scales. We identify actions that have the potential to contribute to this goal such as move beyond the status quo; embrace wicked problems; conduct mechanistic management-scale experiments; improve accountability and transparency; learn from failure; engage in interdisciplinary, cross-sectoral, and cross-jurisdictional collaboration; create space for Indigenous knowledge systems and other ways of knowing; empower individuals and communities to act; acknowledge that the world is not static; recognize that there are nefarious forces at play; embed environmental problem-solving into education; and celebrate and share successes. Given geopolitical uncertainty, such progress will be challenging but it is extremely critical that it happens. We are hopeful that Canada will support and model such efforts based on the wise use of and respect for the rich natural resources we have in this country.

Key words: environmental decisions, evidence, conservation, solutions

1. Context

Anthropogenic environmental change and biodiversity loss are pervasive and persistent problems in Canada (e.g., CESCC 2016; Ray et al. 2021; Desforges et al. 2022) and elsewhere, and we have failed to meaningfully address them (this global issue was identified nearly 30 years ago (Vitousek et al. 1997)). As such, we are entering a period of desperation and urgency where we need to identify and implement solutions that truly work. Failure to do so will mean additional long-term negative consequences for our ecosystems as well as human health, wellbeing, and prosperity that will reverberate across generations (Cardinale et al. 2012; Myers 2017; Pecl et al. 2017). It is our perspective that what we are doing now is wholly insufficient with respect to protecting the environment and restoring ecosystems and biodiversity for the benefit of nature and people. This is both troubling and frustrating, but we are still confident that it is fixable. With this perspective article, we share reflections as well as our forward-looking position on what we need to do to achieve meaningful solutions. To do so, we first provide a brief overview of the current state of affairs as it relates to this topic in Canada. Next, we muse about what potential solutions look like and why they have been difficult to implement thus far. Then, we explore what can be done to identify and implement ef-

fective solutions. Finally, we consider whether there is reason for optimism or only pessimism. Given that this paper is part of a series to celebrate the first 10 years of the journal FACETS, with a focus on issues specific to Canada, the paper has a somewhat narrow geographic focus (i.e., one country) yet we submit that many of the issues presented here are relevant to most other regions and jurisdictions.

2. Positionality statement

Given this is a perspective paper, it is important to be transparent about our positionality because our lived experiences (and privilege) have influenced our thinking today and also provide us with a platform to be able to freely speak truth to power without consequence. Cooke has been fortunate to work in the environmental sector since midway through high school where he had summer jobs dealing with ecological restoration, environmental monitoring, and outreach. He is now a professor of Environmental and Interdisciplinary Science at a Canadian academic institution (Carleton University) where he conducts research that spans the natural and social sciences. Cooke also leads an evidence synthesis centre that supports government, industry, and non-governmental organizations by providing evidence-informed

environmental analyses. He is fortunate to have had the opportunity to collaborate and partner widely with policy makers, practitioners, and other decision makers through his roles on various committees and the coproduction of research. Cooke has expressed his frustration as a scholar practitioner in informing policy and practice (Cooke 2019; Cooke et al. 2025) although he also noted some promising trends (see Cooke 2019), yet the landscape continues to evolve and some of those “successes” have eroded. It is time to be noisy!

Smol’s early background was quite different from Cooke’s, spending summers as a construction worker to pay his university fees. His first experience in an ecological setting was a summer limnology position (in between his BSc and MSc) at the McGill Lake Memphremagog Research Station (see Smol 2025). Smol is now a professor in the Department of Biology at Queen’s University (in Canada), cross-appointed with the School of Environmental Studies, where he teaches and conducts research on long-term environmental change, especially as it relates to lakes. He has been the Editor-in-Chief of *Environmental Reviews* for over 20 years and was, until recently, President of the *Academy of Science, Royal Society of Canada*. Smol has been a vocal advocate for improving science literacy and mobilizing knowledge transfer to policymakers and the public-at-large (e.g., Smol 2018), and he, like Cooke, has called for increased pressure (and noise; Smol 2016) given the severity of the environmental issues facing humanity today.

As settlers, we recognize that the views we provide have also been informed by our learnings from Indigenous peoples, but as allies our role is to ensure Indigenous rightsholder voices and knowledge systems are embraced, rather than to fully explore those perspectives here (see McGregor 2004; Berkes 2009; M’sit No’kmaq et al. 2021; Reed et al. 2022 for entry points to such literature).

3. The current state of affairs in Canada

Canada is characterized by a diverse and vast landmass with unparalleled freshwater resources and access to three oceans. From the Arctic tundra to the boreal forest and from the Maritime region to the Prairies, Canada’s geodiversity and biodiversity are rich and varied. Canada is also characterized by its diverse peoples including the Indigenous rightsholders that have stewarded these resources for millennia and settlers (immigrants) that have come from every corner of the planet in search of a better future. Canada is the second largest country on the planet by landmass and holds ~20% of global freshwater reserves, yet it also has among the lowest population density (at ~4 people/km²) due to large tracts of unoccupied land. When most people think of Canada, visions of wilderness and near limitless natural resources with pristine waters come to mind. Yet, despite its vastness and relatively low density, Canada is far from immune to environmental problems. Indeed, Canada’s blessing is also its curse in that the minerals, oil and gas, forests, fish and wildlife populations, and water resources serve as the foundation for a resource-intensive economy with negative consequences when they are either overexploited (think biological resources such as the Atlantic cod) or developed in ways that lead to massive collateral damage to ecosystems.

Canadians frequently assume that Canada’s size and richness of resources give us a safety net so that overexploitation is simply not possible and that even if we develop areas (whether urban, industrial, or oil and gas extraction facilities), the impacts would be localized and thus “diluted” or mitigated by surrounding natural areas. That attitude persists to this day, despite many examples where that fallacy has backfired with consequences that are currently impacting and will continue to impact Canadians for generations to come. Ironically, we are in a time when those past experiences are being forgotten as governments at all levels in Canada posture and advance efforts to “unleash” or “expedite” development activities to support and “protect” the Canadian economy by ensuring that our sovereignty is maintained (see Cooke et al. 2025). Anyone with an ounce of patriotism would buy in to such an approach, yet we must also realize that this involves “streamlining” environmental assessment processes (which is code for shortcuts and weakening regulations) so will have long-term consequences that will burden future generations. Ironically, “future generations” are often invoked as the reason that we need such policy changes, yet the quality of our children’s long-term future is in reality ignored because the environmental degradation and biodiversity losses may be irreversible.

The statistics are already grim with large impacts of environmental change and biodiversity loss on ecosystems and people (including society more broadly). For example, one in five species of wildlife in Canada is at some level of risk of extirpation or extinction (https://wildlife-species.canada.ca/species-risk-registry/virtual_sara/files/reports/Wild%20Species%202020.pdf; Ray et al. 2021). Unprecedented wildfires fueled by climate change are literally incinerating ecosystems and erasing communities from the landscape. Legacy pollutants persist and emerging pollutants are added daily to a growing list of contaminants (e.g., PFAS/PFOs; Longpré et al. 2020). Even environmental problems from yesteryear, such as acid precipitation, that we had thought were addressed, had “legacy effects” (such as loss of calcium buffering capacity in soils due to acid rain and logging; Jeziorski et al. 2008). Watershed report cards suggest that water flows in rivers are sufficiently disrupted in over 50% of assessed systems to receive scores of “poor” or “fair” (WWF-Canada 2020). The examples presented here are but just a few and do not encompass the human toll (spanning cultural disruption, human health, and socioeconomics) that arises from environmental change, ecosystem degradation, and biodiversity loss. Notably, all of these issues exist despite a functional democratic system with strong governance and reasonable wealth (Ray et al. 2021). It is an understatement that we are in a critical state where there is need for solutions to these problems and challenges.

4. What do solutions look like?

The concept of “environmental solutions” may seem intuitive, yet is actually quite nuanced. Solutions can occur at various spatial scales ranging from a very specific locale (say a single road culvert) to something more global (governments implementing a regulatory limit on a given pollutant). They

can also have different temporal scales from something done to address a very acute and immediate issue (e.g., cleanup of a small oil spill) to those actions that take decades or more to realize progress (e.g., greenhouse gas mitigation) toward something that could eventually be embraced as an environmental solution. The number of actors (including partners and collaborators) involved in identifying and implementing solutions is also quite varied and can range from just a few committed individuals to activities that require collaboration across regions and even the entire globe. Those seeking solutions are also varied and include industries attempting to secure the regulatory or social licence for an activity (ranging from a mining company to an industry association for hydropower), governments (from municipal to provincial/territorial (or state) to federal or even global via entities like the UN) that hold a regulatory role or have a legal requirement to engage in certain activities (e.g., protect at risk species), NGOs that play a supporting role in advocacy, communication, and science (from very local community-based organizations to global), Indigenous organizations and governments, and other actors. Importantly, individuals play a key role—whether environmental professionals or volunteers engaging with environmental groups or members of the public.

At a minimum, for a “solution” to be defined as such, it should “work” (Arora et al. 2018; Godet and Devictor 2018). Of course, that is subjective, which emphasizes the importance of having clear goals. A solution could be a practical activity (e.g., assisted migration of trees, restoring a wetland) or a broader policy action (e.g., regulations prohibiting certain activities or setting thresholds, protecting at risk species). However, if the policies and legislation are not implemented or enforced by the responsible parties, that would be a failure. These “paper protections” are a common situation in Canada where we have policies that have the potential to be used for good but, for various reasons, they still falter such that the good that could come from them is never fully realized. It is worth noting that we cannot know if solutions work if we do not try them. It is also important to acknowledge that solutions are rarely complete and instead need to be “satisficing”—that is to accept something as satisfactory even if imperfect (DeLara et al. 2015). That does not mean we should not strive for “perfection” but we also need to realize that perfection is elusive.

5. What can be done to identify and implement effective solutions?

Identifying and implementing solutions that achieve their desired goal is an important focal area for those working in environmental science and practice. Here, we provide a list of actions that have the potential to contribute to that goal (Fig. 1).

5.1. Move beyond the status quo

By all accounts, the status quo is not where we want to be. The first step here is to acknowledge this fact and embrace the idea of radical change (Temper et al. 2018; McPhearson et

al. 2021). The status quo is characterized by bureaucratic, legal, financial, institutional, and political barriers (epitomized by capitalism and consumerism), as well as an inability to envision and try what is possible. Radical change will require re-imagining governance systems and institutions so that they recognize the connectivity among social, ecological, and technological/development realities (McPhearson et al. 2021), thus centring a sustainable path for the future (Tischner and Verkuil 2006). It will also require looking to other countries that have found solutions to reduce/reverse environmental/societal harms, and thereby learn from them so we can have a better version of Canada. This is inherently challenging because there are many parties that benefit from the status quo. Developers benefit from the fact that regulations are rarely enforced and that there is insufficient monitoring. Government benefits from the tax dollars that are generated by development. In other words, to change the status quo will take significant effort given that the status quo benefits many.

5.2. Embrace wicked problems

Many (if not most) environmental problems can be characterized as “wicked”: they are complex and often involve conflict among different groups of actors that makes finding solutions very difficult (Balint 2011). It is easy to give up in the face of such challenges, yet those challenges are also calls for creativity, collaboration, and transdisciplinary thinking (Harris et al. 2010), which must be supported by strong leadership (Grint 2010). As a community (extending well beyond researchers), we have the opportunity to work together to tackle these wicked problems head-on and make progress for the benefit of all.

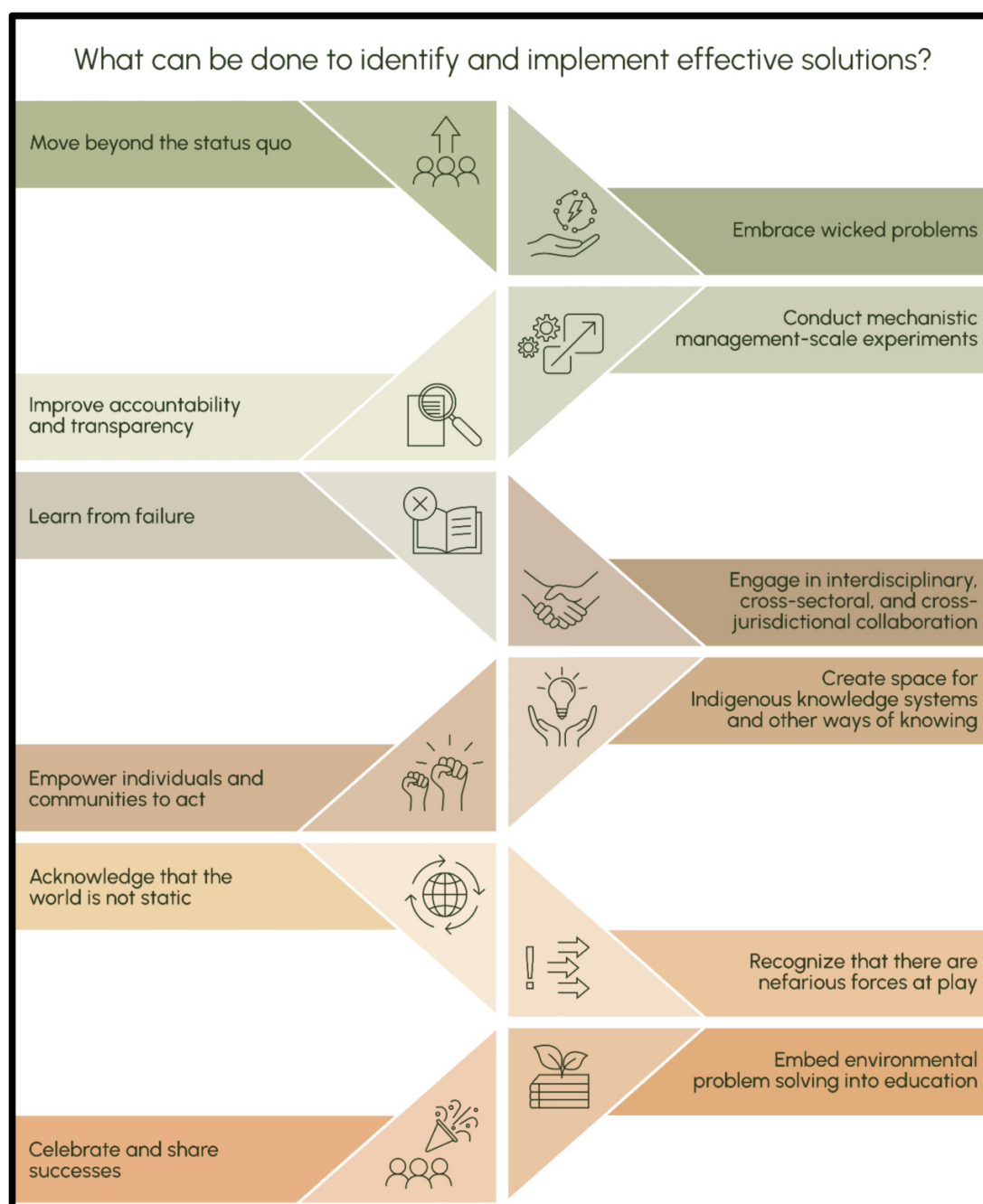
5.3. Conduct mechanistic management-scale experiments

Many potential environmental interventions and solutions are never tested at the management-scale level nor in an experimental manner. That means that decision makers have difficulty in applying research to management contexts (Underwood 1995) and the lack of rigorous experimental designs (with relevant controls, comparators, and replication) makes it impossible to determine the likelihood of a given outcome (Cooke et al. 2017). The research community needs to conduct mechanistic management-scale experiments to build a robust evidence base and communicate these findings to decision makers to increase the likelihood they will be embraced.

5.4. Improve accountability and transparency

When governments, industry, or other organizations or actors fail to engage in actions or behaviours that protect the environment and people or make decisions without providing transparency for the basis of those decisions, there are rarely consequences for those entities. Evidence-informed decision making (Reynolds et al. 2014; Cooke et al. 2023) and indeed good governance (Mason 2020) are underpinned by the principles of accountability and transparency. Voters and civil society (via the legal apparatus in democracies)

Fig. 1. Summary of key actions for identifying and implementing effective solutions for environmental problems, along with an example. Not all actions are relevant to every issue or challenge. Moreover, some might be best applied in sequence (we do not present them in any particular order), whereas others are best applied simultaneously. As an example, consider recent efforts that involve exploring highspeed rail (dubbed “Alto”) between Quebec City and Toronto (with stops in Montreal and Ottawa with possibilities of Kingston and/or Peterborough). This is a complex topic in that the development would lead to expropriation of lands and the severing of currently connected wetlands, forests, and agricultural areas. Nonetheless, a high-speed electric train in principle is a good idea and would presumably reduce carbon emissions relative to trains powered by fossil fuels or alternatives such as aircraft or driving (gas powered vehicles). There is an ongoing consultation period that is consistent with improving accountability and transparency. However, the trade-offs of different options have not been clearly presented, forcing the public (which have varying levels of environmental education and awareness) to provide input in a vacuum. Grassroots efforts are mobilizing community groups and individuals to become involved, learn more about the project, and share their perspectives. Of course, we need to acknowledge that the world is not static (highspeed rail would be potentially valuable component of transportation infrastructure). This is also an example of a wicked problem whereby there is no optimal solution that will yield manifold benefits to the environment or people. To summarize, this is a real-world example that is currently under consideration. What we provide is not a framework but rather a series of actions that are useful for trying to understand problems and work towards meaningful solutions (even if just satisficing ones).



need to hold those responsible for making environmental decisions accountable for their decisions and ensure transparency around such decisions (Dicks et al. 2014). Transparency also benefits decision makers and governments by providing clarity regarding the basis for action (or inaction) on a given file (Fox 2007; Fontaine et al. 2022).

5.5. Learn from failure

Failures happen when attempting to achieve particular environmental outcomes. Yet, the real failure is when we fail to learn from those experiences that could have been used to improve future actions (Webber et al. 2022). In some cases, we do not learn from failures because there is no monitoring to assess success (Stem et al. 2005); these interventions cannot be called solutions because their successes remain unknown. In other cases, monitoring is conducted but those findings are never shared beyond the project team, and therefore others will likely repeat those failures (Dickson et al. 2023). Sometimes regulatory bodies require monitoring but there needs to be a plan with respect to what to do with that information—monitoring without the ability to modify the “solution” in response to emerging data (i.e., true adaptive management) is almost as pointless as not monitoring at all. When we do not learn from failures, we waste valuable resources repeating mistakes, and the environmental problem that we set out to address may in fact get worse (Cooke et al. 2020b). Successes are most likely when teams are comprised of individuals willing to learn from failure (Catalano et al. 2021).

5.6. Engage in interdisciplinary, cross-sectoral, and cross-jurisdictional collaboration

Given the multidimensional and complex nature of environmental problems (as noted above—they tend to be wicked problems), embracing approaches that are cross-cutting will be necessary (Dick et al. 2016). Doing so requires thinking across disciplines (Cooke et al. 2020a), sectors (Trowbridge et al. 2022), and jurisdictions (Shrivastava and Guimarães-Costa 2017). Far too often, we attempt to solve problems using the same narrowly defined group of individuals that have been working on the problem for a long time. Bringing in new ideas, concepts, and thinking (i.e., new people) is critical for looking at problems through different lenses and making meaningful progress (Hong and Page 2004).

5.7. Create space for Indigenous knowledge systems and other ways of knowing

Western science has been the dominant knowledge domain embraced by decision makers, yet it is apparent that using Western science alone has failed to avert or address environmental crises. There is need to create space for Indigenous knowledge systems and other ways of knowing to be considered as valid environmental evidence (Gadgil et al. 1993) and there are various pathways for doing so, such as embracing a two-eyed seeing approach (Reid et al. 2021). Indeed, there are a growing number of empirical studies that demonstrate systems managed by Indigenous communities using Indigenous knowledge and paradigms have better outcomes

(e.g., more protection for wildlife, biodiversity, and climate resilience) than those managed using only Western scientific approaches (Boiral et al. 2020). Beyond the practical aspects of the potential to improve environmental outcomes, there is also a moral and legal imperative to involve Indigenous peoples in exercising their sovereign rights (Bowie 2013; Muller et al. 2019). That also means involving Indigenous peoples in research in a “good” way (Reid et al. 2024).

5.8. Empower individuals and communities to act

The notion that top-down efforts or the “government” will address the environmental crises of today and tomorrow is naïve and risky. Certainly, governments play an important role (e.g., in regulation, enforcement, and education), but that should not diminish the essential role of actions undertaken by individuals or groups of individuals (communities). Indeed, there is a dire need to empower and celebrate their efforts (Schreiner and Sjöberg 2005; Lopez and Weaver 2021; Dushkova and Ivlieva 2024). To be clear, those efforts should be evidence-informed, just like we expect of efforts undertaken by governments, which means creating pathways for stewardship and aggregating those local efforts in a coordinated manner (Plummer et al. 2022). It is also well understood that, even when people know what the right thing to do is, they cheat. Recycling is but one example where 40 years later there are still immense struggles to get people to recycle and do so in a way that ensures that those waste streams are not contaminated. As such, empowerment needs to be underpinned by a nuanced understanding of human behaviour.

5.9. Acknowledge that the world is not static

Solutions for today may not necessarily be the solutions for tomorrow. The social and institutional contexts for a solution could change just like there could be new technical challenges or newly discovered unintended consequences of what was initially classified as a solution (Rehman and Ryan 2018). Environmental change and biodiversity loss themselves are making solutions more challenging (Lynch et al. 2023). For example, ecological restoration efforts need to be future-proofed so that they are robust to ongoing climate change, while the loss of biodiversity makes restoration more challenging if populations have been extirpated. A push to protect processes instead of species, and to include both restoration and protection as goals (Possingham et al. 2015), could help.

5.10. Recognize that there are nefarious forces at play

Science, public discourse, and evidence-informed decision making have long been subject to various forms of abuse and obfuscation, but in today’s world of social media, “fake news”, “alternative facts”, political polarization, and public discontent, these nefarious forces are omnipresent (see Strong 2016; Lazer et al. 2018; Kubin and Von Sikorski 2021). From impacting what research gets funded (Witze and Kozlov 2025), to which research domains and approaches are considered valid, to ignoring science

because it is inconvenient (Voci and Karmasin 2024), to dismantling or belittling public institutions or their decisions (Fiorino 2025; Pagel 2025), to collapsing collaborations (Pagel 2025), it is remarkable that good environmental policies are ever codified. Nefarious examples abound (including in Canada), including the reversal of plastic straw and plastic bag bans (see <https://www.cbc.ca/news/politics/court-rules-against-listing-plastics-as-toxic-1.7030716>), to canceling incentives for electric vehicles (<https://www.cbc.ca/radio/costofliving/ev-rebate-funding-1.7446355>) or home energy retrofits (<https://www.pressreader.com/canada/toronto-star/20240206/281685439743512>), to embracing coal and other nonrenewable energy sources over green renewables (<https://www.whitehouse.gov/presidential-actions/2025/04/reinvigorating-americas-beautiful-clean-coal-industry-and-amending-executive-order-14241/>). What is clear is that the contemporary scientist needs to do more than just publish their work; instead, they need to effectively communicate their science to diverse audiences and counter misinformation with evidence-based strategies (Smol 2018; Farrell et al. 2019; Lewandowsky 2021) in ways that work (i.e., interventions that have been proven to change minds and behaviours; Toomey 2023). This is a frustrating battle but one that requires ongoing efforts to address.

5.11. Embed environmental problem solving into education

The contemporary student in environmental science and management is well versed in the many threats facing the environment. The same cannot be said about developing and assessing solutions. Rather than dwelling on problems, there is a need to rethink education and training to focus on fostering problem-solving skills and mindsets that will ensure that the next generation of environmental professionals is well positioned to solve the problems that have festered for decades as well as emerging ones (Gale et al. 2022). Doing so will require rethinking how students are trained with a greater focus on real-world issues using problem-based learning modules that bring together students from across campus with diverse interests and expertise (Cockrell et al. 2000; Wei et al. 2020).

5.12. Celebrate and share successes

Although we are generally failing to meaningfully solve most environmental problems, there are still some wins that are worthy of celebration. Sometimes this might mean celebrating a localized or finite success (one wetland restored, one policy change in a given jurisdiction, or one population of wildlife put on a trajectory for recovery). Such celebrations are both justified and important for engaging the masses and maintaining optimism (McAfee et al. 2019) and should be embraced as examples of what is possible with the real strength that comes when those small/localized successes are aggregated (Bennett et al. 2016). Beyond celebration, it is important to share those successes so others can learn from and apply them (Bennett et al. 2016).

6. Is there reason for optimism?

In short, we would not have written this perspective if we were not still optimistic about the potential to course-correct and ensure that we embrace real solutions that are durable, realistic, and effective (as others have espoused; see Swaisgood and Sheppard 2010; Balmford and Knowlton 2017). Yet, our optimism is also buttressed with a healthy dose of pessimism, skepticism, and realism. Time is not on our side. Our hope and optimism are born from the fact that we can identify examples of success stories, which clearly demonstrates what is possible. We are also hopeful when we observe the grass roots stewardship activities that play out every day in our households, neighbourhoods, and communities. We are also hopeful when we reflect on the smart, caring, and passionate people that are embedded in various organizations (e.g., government, NGO, and industry) working hard to make our world a better place. We are even hopeful, if not heartened, when nations come together to craft and ratify agreements that in spirit have the potential to make good things happen. However, there are also too many examples where what we are doing is too little and too late. The more environments are changed, ecosystems are perturbed, and biodiversity is lost, the more difficult it will be to achieve solutions. For us, this is a call to action and one that must be shared with urgency (as per Gautam et al. 2024). The challenge is that we also live in a world characterized by dynamic and unpredictable global forces (Batty 2020) including military conflicts, trade wars, corruption, disease, and misinformation. When people are being bombed, are hungry, are unwell, or face economic uncertainty, things like the environment become less important. Yet, environmental protection is key to solving all these issues as these complex systems are connected such that food insecurity can be driven by climate change (Dasgupta and Robinson 2022), pathogen outbreaks (e.g., zoonoses) are amplified by environmental stress (Estrada-Peña et al. 2014; Esposito et al. 2023), and biodiversity loss negatively impacts livelihoods and human well-being (Diaz et al. 2006; Cardinale et al. 2012). When cabinet ministers meet in Ottawa, every portfolio is intimately linked to the environment, yet this is usually not fully recognized. Indeed, the United Nations Sustainable Development Goals are all underpinned by the premise of having healthy ecosystems and environments (Reid et al. 2017).

Canada is a wealthy country by all measures (acknowledging that there is still inequality such that many Canadians face poverty and are food insecure), yet, as the world changes, the ecosystems and resources that we rely upon are themselves at risk. Nature is certainly quite resilient if given space and time to recover (Timpane-Padgham et al. 2017)—when the scale and magnitude of impacts are not too extreme. Extinction is forever, and it is infinitely harder to recover species at risk of extinction than to prevent their loss in the first place. Knowing where those thresholds and tipping points are (i.e., how much is too much) is difficult (Harper et al. 2023) but these wicked problems have solutions. How many more environmental disasters with catastrophic impacts on our economy and peoples will it take before we take such matters seriously?

As one of us recently outlined in an op-ed for *The Conversation* (Cooke et al. 2025), in our quest to ensure Canadian sovereignty and prosperity in the face of recent pressures from the Trump administration, we, as a society, have collectively embraced the idea that we need to expand our resource extraction and development activities. However, the issue is that politicians of all stripes and levels (from regional to provincial/territorial to federal) have been embracing concepts such as “cutting the red tape” and “speeding up development” (e.g., <https://www.theglobeandmail.com/canada/article-mark-carney-first-ministers-meeting-infrastructure-economy/>; <https://www.ola.org/en/legislative-business/bills/parliament-44/session-1/bill-5>). Most bureaucratic processes could benefit from thoughtful refinement but that does not mean we should be willing to lower our standards and push through activities that we know will have negative impacts (Cooke et al. 2025). Since we first penned this essay in late summer of 2025, the following months have seen even more emphasis on major resource development and what appears to be a growing number of cuts to science and regulatory capacity in the environmental space within the federal government (<https://www.cbc.ca/listen/live-radio/1-429-what-on-earth/c/16195285-what-ottawas-job-cuts-may-mean-oil-spills>). Efforts to prevent, mitigate, and compensate (where needed) for environmental harms are essential and need to consider the cumulative impacts of development. It is short-sighted to focus on development activities that create legacy environmental problems that will be inherited by our children and grandchildren. Rather than cutting science and regulations, it is time to double-down and recognize one of the things that characterizes Canada is our collective interest in ensuring that we protect wild spaces. We acknowledge that we need to find the balance between short-term gain and long-term pain—a balance that we have failed to achieve thus far. To that end, we are perhaps less hopeful today than we were several months ago, yet even more steadfast in our commitment to work on these issues and challenges with a solutions-oriented mindset.

Acknowledgements

The ideas presented here were informed by our engagement with our trainees, collaborators, and partners over the years. For that we are thankful. We are grateful to Kathryn Peiman for comments on an earlier version of this manuscript. Cooke and Smol are primarily supported by the Natural Sciences and Engineering Research Council of Canada. Figure 1 was created under contract by Stacey McCormack from Visual Knowledge Pty Ltd. We thank Marco Festa-Bianchet and Andrea Olive for providing thoughtful input on our manuscript. We proudly declare that AI was not used in the writing of this manuscript.

Article information

Editor(s)

Andrea Olive, Fanie Pelletier

History dates

Received: 9 September 2025

Accepted: 20 February 2026

Version of record online: 6 April 2026

Notes

This paper is part of a collection entitled “Opportunities and challenges in Canadian research: FACETS 10-Year Anniversary Collection”.

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Author notes

Steven Cooke served as Consulting Editor and John Smol served as Subject Editor at the time of manuscript review and acceptance; peer review and editorial decisions regarding this manuscript were handled by Andrea Olive and Fanie Pelletier.

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Conceptualization: SJC, JPS

Writing – original draft: SJC, JPS

Writing – review & editing: SJC, JPS

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