INDIGENOUS CLIMATE ACTION

#ICAatCOP26

SNEAK PEEK

The Risks and Threats of *'Nature-based Climate Solutions'* for Indigenous Peoples

Acknowledgements

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Stay tuned to Indigenous Climate Action's website and social media for our full release of the report, featuring two whole new sections: **Nature-based Climate Solutions in Canada** and **Decolonizing Nature-based Climate Solutions with Indigenous-led Solutions**.

“This work envisions a world where Indigenous-led climate solutions are the standard and where colonial structures are doing the work to figure out where their resources and knowledge can offer support to existing Indigenous systems, not the other way around. This will require a deconstruction and undoing of current systems to create space for our own independent processes and plans built around a more holistic, interconnected, balanced approach based on reciprocity and respect with the natural world.”

— Eriel Tchekwie Deranger, Executive Director ICA

“If Nature-based solutions were associated with land back, with the recovery of sovereignty, with empowerment, with the building of Indigenous power, then I think they would be very, very important. But most of the time, when I hear about Nature-based solutions, it doesn't mean any of that”

— Kyle Whyte

About Indigenous Climate Action

Indigenous Climate Action (ICA) is an Indigenous-led organization guided by a diverse group of Indigenous knowledge keepers, water protectors and land defenders from communities and regions across the country. We believe that Indigenous Peoples' rights and knowledge systems are critical to developing solutions to the climate crisis and achieving climate justice.

ICA works on connecting and supporting Indigenous communities to reinforce our place as leaders driving climate change solutions for today and tomorrow. We model our work and organizational structure on systems of free, prior and informed consent and self-determination. By providing our communities with knowledge and resources, we can inspire a new generation of Indigenous climate leaders building solutions centred around our inherent rights and cultures.

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Executive Summary

This is a ***sneak peek*** of a full report on *The Risks and Threats of 'Nature-based Climate Solutions' for Indigenous Peoples* which will be released in late 2021. We are releasing this Sneak Peek, just in time for the COP 26 climate negotiations in Glasgow, even before the rest of the report is complete. We decided to do so to share with others what we've learned so far: that **Nature-based Climate Solutions, which may seem like a promising new direction in climate policy, appear to be yet another *false solution***.

Nature-based Climate Solution (NbCS) - using forests, soils and wetlands to capture and store carbon pollution, which are continuing the commodification of nature and are based in the same Western worldviews that are driving the climate crisis they seek to address. They are replicating the serious problems we've seen with previous carbon offsetting schemes and mainstream conservation; the violation of our rights and theft of our lands. These 'solutions' are being pushed on our communities as economic opportunities to make money from 'sequestering carbon' on our lands. Instead of helping to empower the community economically, these carbon market schemes bring new corporate interests to our territories such as oil and gas, and other polluting industries, who want to invest in projects to 'offset' their continued carbon emissions. **For the last century, the colonial governments and industries have sought our lands to extract the oil, mine the minerals, and cut down trees. Now they seek our lands to store the carbon pollution these processes have created and to address the climate crisis that they are responsible for.**

We offer this report to Indigenous communities around the world, so that together we are informed about the **risks and threats of this new round of land theft, (masked as climate solution), so that we can resist them and open up space for the *real solutions:*** the solutions that leave fossil fuels in the ground, that uphold our rights, our responsibilities, and that are grounded in our own relations with the lands and waters … the solutions that end colonial capitalism and in doing so, make room for our own ways of living to flourish once again and in doing so, to "*support the continuance of all life*[1] ".

[1] We borrow this phrase from Deborah McGregor who shared it with us in an interview on Oct 6, 2021

Introduction

There is a new trend in mainstream climate policy in so-called Canada, and around the world, being referred to as Nature-based Climate Solutions (NbCS). Cloaked as *working with, not against nature*, it creates an appearance of responding to the kind of climate solutions that Indigenous Peoples have long been advocating for. Solutions built around holistic, interconnected, and balanced approaches to, that are based on reciprocity and respect with the natural world; that acknowledge that **"to face climate change, we must recognize Mother Earth as the source of life and forge a new system..." (Cochabamba Declaration, 2010, p. 4).**

As we explained in the *Decolonizing Climate Policy Report* which ICA released in 2021, Canada's most recent climate plan proposes to plant two billion trees, restore and enhance wetlands, peatlands, grasslands and agricultural lands to increase their ability to capture and store carbon (this is what is referred to as carbon sequestration). The federal government intends to spend about four billion dollars on these NbCS initiatives and claims that combined, "these actions to accelerate nature-based climate solutions will reduce Canada's carbon emissions by an estimated four to seven million tonnes annually in 2030" (HEHE, 2020, p. 55).

In fact, NbCS are being defined or designed without Indigenous People while using our ways and knowledge, instead of transforming humanity's relationship with the rest of life on Earth. From the fact that NbCS are deeply entwined with carbon offsetting and other carbon markets, to the fact that conceptions of NbCS are replicating non-Indigenous approaches to conservation and therefore have been pushing Indigenous People off their lands again and again across the world, there is ample reason to be concerned that NbCS may be yet another false climate solution.

By false, we mean that the current conceptualization of NbCS fails to address the actual sources of carbon pollution and violates Indigenous rights. In fact, in some ways it seems like at best, NbCS is just a rebranding of the ineffective and unjust climate solutions we've been seeing for the last several decades. And at worst, NbCS projects may bring with them new corporate interests in Indigenous Lands and lead to new rounds of land theft.

These very real risks and threats concerning NbCS are not being discussed broadly, and they are certainly not being addressed. It is for these reasons that the team at ICA decided to prepare this report – to bring key critiques and perspectives to the community, academic, and policy conversations about NbCS. Most importantly, our aim is to share information and start a conversation with Indigenous communities in so-called Canada and elsewhere about the potential threats and dangers brought by Nature-based Climate Solutions.

In our research for this report we asked: How are NbCS being rolled out in so-called Canada? Who is defining them? Who is benefiting from them? And who might be harmed? How might NbCS be of benefit to Indigenous Nations and communities in so-called Canada? In what ways might NbCS be done in ways that violate Indigenous rights and title and harm communities? What are Indigenous approaches to addressing the climate crisis?

In order to find answers to these questions, ICA's Decolonizing Climate Policy research team conducted a series of interviews with Indigenous experts on climate solutions. We also directed a number of research teams across Canada to conduct in depth reviews of existing reports and articles on 1) Critiques of NbCS and related approaches to climate mitigation, 2) Indigenous-led climate solutions. And finally, we supported a graduate student in investigating how NbCS are being rolled out in Canada currently, specifically who is funding them, who is making decisions and on whose lands these projects are being carried out. **The full report will be released in late 2021. For the moment we offer this sneak peek - just in time for COP 26 in Glasgow - of the first part of the report: *The problems with NbCS*.**

We offer this report to share what we've found, to push forward a conversation that really needs to happen. We encourage anyone to get in touch with us to talk about how to promote real climate solutions, that uphold Indigenous rights and forge respectful, reciprocal relations with each other and all our relatives.

> **"Indigenous People need to know that we are part of a bigger agenda to make Canada look like it's doing something about climate change"**
>
> **-Deborah McGregor**

Explaining Nature-based Climate Solutions

One of the main arguments we will make in this report is that NbCS - as they are currently being defined - allow governments and industry to give the illusion of *finally* listening to Indigenous wisdom, of finally hearing what Indigenous Peoples across the world have long been saying and embodying – that humans are a part of Nature, that we are not separate from Nature, nor are we above Nature – without actually changing the systems of extractive capitalism and colonial decision making that created the climate crisis in the first place.

To address the climate crisis, humans need to heal our relations with Mother Earth and with the non-humans who share this planet with us. By claiming to be engaging in NbCS, and of working with nature, governments and industries are evoking Indigenous values and worldviews while not actually listening to Indigenous people. Nor are they respecting the authority of Indigenous decision making as described in the United Nations Declaration on the Rights of Indigenous People (UNDRIP), that is critical to transform the colonial systems that caused the harm in the first place. So, before we describe mainstream conceptions of NbCS we will first ground this conversation in Indigenous people's own conceptions.

Indigenous Conceptions of *Nature as Solutions*

We sat down with Dr. Deborah McGregor, who is Anishinaabe from Whitefish River First Nation and a Canada Research Chair in Indigenous Environmental Justice, to ask her about her take on NbCS. She is a professor at York University and her work is focused on Indigenous environmental and climate justice. She explained to us that it is no coincidence that "where Indigenous Peoples are, is where there's the most intact biodiverse areas, probably even more so than parks as far as I've seen". She told us that "Indigenous Peoples do have their own conception of what nature-based solutions are.... It's always about being on the land ... being there, understanding, hearing what the land has to say about what's happening ... *this* is the most effective way to figure out a path forward" (D. McGregor, Interview, Oct 6, 2021).

To her, this kind of guidance is *nature-derived* rather than *nature-based*, because the solutions emerge from time spent on the land, in relationship with the land, and learning from the land. She went on to explain that this kind of nature-derived guidance is very present in her culture's *stories.*

> “I can think of all kinds of Anishinaabek stories that told us what we need to do, and those solutions came from the natural world. Usually, it was other beings … because we weren't clever enough, because humans in Anishinaabek thinking can be incredibly destructive. This is why there's destruction and re-creation, because we don't behave properly in relation to the natural world. But we also have this incredible ability to be brilliant and smart and creative and innovative. That's what we have to tap into, and when we're doing that, then we're supporting the continuance of all life.... So, to me that's a nature-derived solution. And that already exists in our societies. That already exists in our stories. That exists in our own knowledge systems ...about how to do that, how to listen and hear what's going on” (Interview, Oct 6, 2021).

Deborah’s Anishinaabe teachings have taught her that the solutions literally come from Nature. The challenge is learning to listen to the natural world.

Although Indigenous cultures all have different teachings and traditions, grounded in different geographies, there are core values and insights that weave through many cultures and are shared. One of these is a profound understanding of the connection between the wellbeing of the earth and the wellbeing of humans. In May 1992, when more than 650 representatives of Indigenous Nations from around the world came together to draft the Indigenous Peoples Earth Charter they wrote **“We feel the Earth as if we are within our Mother. When the Earth is sick and polluted, human health is impossible. To heal ourselves, we must heal the planet and to heal the planet, we must heal ourselves”** (Indigenous Peoples’ Earth Charter, p.10).

Another insight shared among many diverse Indigenous Nations is that the Earth itself, including all our plant and animal relatives, have agency and all have a role to play in restoring and maintaining balance.

In the powerful ONJISAY AKI CLIMATE CALLS TO ACTION, which were developed by consensus during the Onjisay Aki International Climate Summit at the Turtle Lodge in Sagkeeng First Nation, Manitoba, it is stated that **“Onjisay Aki means ‘our changing Earth’ in the Anishinaabe language...It acknowledges the leadership of Mother Earth herself, who as a living being carries the true influence to bring birth to new life, to counter imbalances that lead to issues like climate change, and to restore balance in the world”** (Onjisay Aki Calls to Action, 2017 p.1).

Many diverse Indigenous cultures have a wealth of traditions, practices, and ceremonies for nurturing close relations with and seeking guidance from the Earth and all her beings. As Deborah McGregor explained, “we understand this and what has to be done.... But none of that is being encouraged” (Interview, Oct 6, 2021). These are not the understandings and relations that are being recognized and supported by the new trend of NbCS, such as those we see being promoted by the Canadian federal government. The mainstream NbCS are being designed from a very different worldview and with very different means and goals in mind.

Image from Nhattan Nguyen | Blockade at 2020 Algonquin Moose Moratorium in Vérendyre Park

Mainstream Approaches to Nature-based Climate Solutions

The most known definition of NbCS comes from the International Union for the Conservation of Nature (IUCN), who define Nature-based Solutions as: “actions to protect, sustainably manage and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively, to provide both human well-being and biodiversity benefits. They are underpinned by benefits that flow from healthy ecosystems and target major challenges like climate change, disaster risk reduction, food and water security, health and are critical to economic development”. Such actions, though, are largely through “capturing and storing CO2 in our natural systems" (naturalclimatesolutions.org, n.d.). Nature-based solutions look to nature to provide solutions to climate mitigation and adaptation challenges (Nesshöver et al., 2017).

So-called Canada's most recent Climate Plan, *A Healthy Environment, A Healthy Economy*, argues that **"Nature-based solutions unlock the power of nature to reduce emissions in the atmosphere through things like planting trees, restoring grasslands and wetlands, and improving agricultural land management to capture and store much more carbon. Large amounts of carbon are stored in Canada's forests, soils, wetlands, grasslands and oceans today, and nature-based solutions can increase that storage, keeping harmful emissions out of the atmosphere"** (HEHE, 2020, p. 52). This exemplifies so-called Canada's emerging approach to NbCS with a real focus on using natural systems to absorb and store the carbon that this country continues to emit.

Advocates for NbCS argue that managing and protecting healthy ecosystems can be a cost-effective and powerful means of tackling climate change while delivering a wide array of co-benefits for people and nature (Seddon, 2020). Research shows that NbS demonstrate positive results for climate mitigation and adaptation, water management, coastal resilience, green space management, air quality, urban regeneration, participatory planning and governance, social justice and social cohesion, public health and well-being, and economic opportunities and green jobs (Raymond et al., 2017). Keesstra et al. (2019) present several examples of NbS around the world — such as rewilding, organic farming, land restoration, agroforestry and blue-green infrastructure — that have led to "superior effects" for enhancing ecosystem services.

This all might sound promising and heading in the right direction in terms of healing humanity's troubled relationship with the rest of life on earth. But given the long track record of false solutions dominating the national and international conversations about climate change, we need answers to some critical questions. Questions such as: **who is defining and designing NbCS? Whose worldviews are they based on? Is NbSC replicating injustices associated with western approaches to conservation and carbon offsetting schemes? Whose lands will these projects be taking place on? And are these solutions being designed and implemented in ways that respect Indigenous rights and authority? Who will benefit and who will be harmed by these NbCS projects?**

The Problems

Nature-based Climate Solutions bring with them “a lot of different potential harms” … “[they] have a high likelihood of just being land theft” - Dr. Kyle Whyte

We sat down with Dr. Kyle Powys Whyte, who is Potawatomi, an enrolled member of the Citizen Potawatomi Nation and a Professor at University of Michigan. His work addresses environmental justice, focusing on moral and political issues concerning climate policy and Indigenous peoples. We asked him what he would like Indigenous communities to know about NbCS. He told us straight up that Nature-based Climate Solutions bring with them “a lot of different potential harms” and that “[they] have a high likelihood of just being land theft” (Interview, Oct 6, 2021). We thank Dr. Whyte for these powerful words and in the pages below, we share some critically important answers to dig into what some of these potential harms are and to investigate how these so-called ‘solutions’ may be leading to thefts of Indigenous lands.

The Definition and Designs of NbCS

As we emphasized in the Introduction, Indigenous Peoples have our own conceptions and approaches to working with the lands and waters to address the climate and other related issues. But our visions and relations are not informing this new trend in climate policy. NbCS in so-called Canada and around the world are not being developed and defined by our communities. They are being developed and designed by non-Indigenous scientists and governments and environmental non-governmental organizations (ENGOs)s (Kyle Whyte, Interview, Oct. 6, 2021).

Eriel Deranger, the Executive Director of ICA, explained to our research team that the question of “Who is defining these solutions?” is a very important one “because I can tell you, Indigenous Peoples aren't. Instead, we're being pulled into the conversation (long after it began) and then often outwardly uplifted as being at the front and being told: ‘we've learned so much from Indigenous peoples’.... And then they're going to contort it and twist it to their advantage to create all these nature-

based solutions that completely disregard Indigenous folks'" (personal correspondence, August 15, 2021).

As we exposed in our Decolonizing Climate Policy report (2021), Federal climate plans in so-called Canada are full of references to Indigenous Peoples, our rights, and the importance of our leadership in climate action. Yet we were structurally excluded from the decision-making table where those same plans were developed. The 2020 Climate Plan, which introduced so-called Canada's new NbS approach, involved even less involvement of Indigenous Nations and communities than the 2016 plan had. "**These solutions are being designed by non-Indigenous people, based on their conceptions of 'nature', and their understandings of the causes of climate change. They are "not being developed or defined through Indigenous conceptions"** (Kyle Whyte, Interview, Oct. 6, 2021).

Indigenous Peoples are not designing the NbCSs proposed and in fact, the people, governments and organizations who are designing the NbCSs are perpetuating acts of colonialism and undermining Indigenous People's incredible wealth of knowledge and experience managing our ecosystems. Dr. Whyte explained that NbCS "don't always account for what Native people have already been doing. They sort of come about and the various non-Indigenous environmentalists [promote] them and tend to give the impression that they discovered this way of thinking about the relationship between the land and the climate. Actually, Native people have been doing things that are nature-based solutions[2]. Tribes and First Nations have stories historically about how they took responsibility for all sorts of different types of environmental change that was occurring" (Kyle Whyte, Interview, Oct. 6, 2021).

This new trend of NbCS could serve as an opportunity for Indigenous Peoples to finally be acknowledged for what we have long been doing to care for all our relations, but it really depends on how these solutions are getting framed (Deborah McGregor, Interview, Oct 6, 2021).

The Assumptions Informing NbCS

We also sat down and spoke with Graeme Reed, who is of mixed Anishinaabe and European descent and is a doctoral candidate at the University of Guelph, studying the intersection of Indigenous governance, environmental governance, and the climate crisis. He also works at the Assembly of First Nations as a senior policy advisor, trying to ensure federal and international climate policies safeguard First Nations rights, jurisdiction and knowledge.

[2] We will explore these extensively in the final and completed version of this report.

He told us that the NbCS conversations have been “getting dominated by mainstream organisations that have a certain orientation”. He referred to the “ontological disjuncture that we see persisting within mainstream climate policy or environmental policy writ large. It seems to perpetuate this dichotomization of humans and nature and as a result of that, it further instrumentalizes nature for the benefits of humans ... this ontological paradigm requires rethinking” (Graeme Reed, Interview, Oct. 5, 2021). To break that down a bit - there is a real split between how Indigenous Peoples and non-Indigenous people (particularly white people) tend to understand and relate to nature. European thought specifically separates humans from the environment and frames the landscape and all non-human entities as “resources”, seeing humans as superior and with authority over the use of the natural world (Castleden, 2007; Marshall et al., 2021).

Photo from Unsplash from Southern Ontario Farmland. The western perspective of land use.

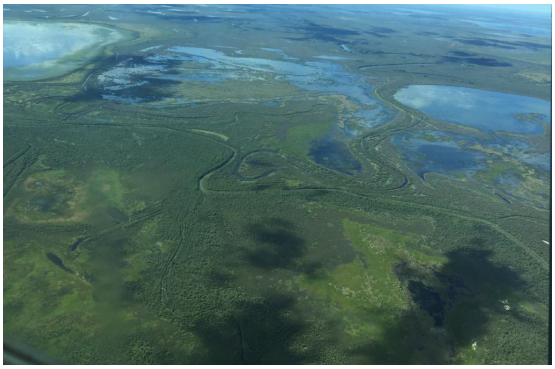


Photo from Eriel Tchekwie Deranger of waterways within Athabasca Chipewyan First Nation lands. The Indigenous perspective of land use.

It is this western worldview that is informing the development of NbCS. Because of this, NbCS is emerging not as an effort to transform and heal relations with the lands and waters we are part of, but rather seems more about “how can we continue to abuse nature so that it can serve our ends ... about using nature to solve the problems we have created” (Deborah McGregor, Interview, Oct 6, 2021). This problematic approach is rooted in the assumption that Nature only exists for our benefit.

Dr McGregor pointed out another problematic assumption that seems to be underlying NbCS: that Indigenous people don’t know how to manage our lands. She told us that there is still this:

> “underlying belief and attitude that Indigenous peoples don't know how to manage land properly, even though there's clear evidence in Canada and around the world, that the lands that Indigenous peoples caretake, [have] the most diverse lands in the world. [This is also] true in Canada - on reserve is where there's the most biodiversity, because they've been caretaking properly. Early on when they first came, European settlers said

> ‘those people don't know how to take care of the land, they don't develop it properly’. That attitude still persists to this day. So broader society, even though they're trying to change that paradigm, they still think they're still better at it than how Indigenous Peoples might want to conserve (whereby taking care of the land means you're actually interacting with it). So... NbS should be an opportunity, but non-Indigenous people have not let go of that underlying assumption that Indigenous peoples are inferior, that somehow, we're just not smart enough to be able to take care of the land... And people disguise it a lot better now, but it's still there in circles I am in, it is definitely still there. [They are approaching it like] ‘If only those Indigenous people would just buy into our solutions, everything would be cool’, as opposed to listening to what Indigenous peoples have to say, and basing solutions on that” (Deborah McGregor, Interview, Oct 6, 2021).

Indigenous Peoples have long pointed out how western science reduces Nature into separate parts and is based on “shattering and fragmenting” processes that are blind to the “context, connections and interaction” that are vital to understanding nature (Turtle Lodge Declaration, 2017, p.2). Climate solutions based in Western knowledge systems tend to miss the important complexities and interconnections for ecosystem health and focus instead on simplifying systems enough to model and quantify for the interests of a capitalist economy. Dr McGregor explained to us how this is playing out in Canada’s NbCS forestry initiatives. She told us that Canada may be promising to plant millions of trees, but really, they have already been doing that as part of regular forestry practices. She explained that Canada’s approach to NbCS is really about “quantification of Canada’s existing approach to forestry, but now with the counting of carbon... this seems to be about measuring [the carbon sequestration potential in what it’s already doing] so that they can show they are working towards the Paris Agreement” (Deborah McGregor, Interview, Oct 6, 2021).

She explained that the way they plant trees is a big problem, too. “They plant monoculture because they want a certain type of tree to make money from. They're not planting the trees based on what is best for the ecosystem or the best for wildlife. Usually when trees are being planted, it's usually to serve some other agenda” (Deborah McGregor, Interview, Oct 6, 2021).

Indeed, the academic literature on this agrees. Many of the considered “reforestation” or NbCS projects are monocultures or plantations that use exotic

non-native species (Seddon et al., 2020). Numerous large-scale plantations are monocultures of species of commercial value, replacing natural forests of native biodiversity value or doing afforestation (which means planting trees where no trees were before), again affecting native biodiversity. This is done for the sake of economic growth, industrialization, and urbanization (Hurni & Fox, 2018). There are serious problems that arise when "climate mitigation policy encourages NbS with low biodiversity value, such as afforestation with non-native monocultures" (Menz, Dixon & Hubbs, 2013; Seddon et al., 2020). These can result in significant impacts to ecosystems, such as the change of chemistry of rivers, or reduced water availability for native species (Fundazioa, 2010).

So we see an approach to mainstream NbCS that is informed by a narrow understanding of the Earth and all her relations, and leading to problematic climate 'solutions'.

The Replication of Problems Associated with Mainstream Conservation

Dr. Whyte explained to us that mainstream projects aiming to conserve forests in order to capture and store carbon are based on one particular and limited conception of biodiversity and of environmental management, and that these approaches are, in fact, imposed on Indigenous Peoples and on our lands.

> "They'll make it so that Indigenous People that want to participate cannot unless they adopt somebody else's approach to land management. The problem with that is that for Native folks, there's no such thing as land management where you've got an area that nobody really does much on. For Indigenous People, the quality of the land has to do with the cultural practices, the family practices, the economic practices that support the sovereignty and integrity of the community" (Kyle Whyte, Interview, Oct. 6, 2021).

As Dr McGregor puts it:

> "**We still don't agree on the best way to be in relation to land**.... In many cases, Indigenous people are still seen as a threat to conservation, and land trusts are still being set up in ways where Indigenous People can't access them.... This is a very narrow paradigm in Canada - and if Indigenous People follow along with this, great. But if not, we are seen as a threat to that whole agenda" (Deborah McGregor, Interview, Oct 6, 2021).

Indeed, these mainstream, non-Indigenous approaches to conservation have a problematic track record that is well documented in the academic literature.

The western conservation movement can be traced back to the mid-nineteenth century, when wealthy white men were writing volumes celebrating the beauty of the wilderness and America created its first national park, Yellowstone, on the territory of the Indigenous Nations of Shoshone, Bannock, Crow, Nez Perce and others (Gilio-Whitaker, 2019). The park's purpose was to preserve the wilderness using military enforcement and hunting restrictions. The underlying logic behind Yellowstone and much of western conservation following its creation, is that 'wilderness' landscapes are always in need of protection and are, or should be, *devoid of human presence* (Gilio-Whitaker, 2019, emphasis added). It is important to note that conservation has not solely been about protecting nature, but also profiting from natural spaces, for example spaces for elites to build cabins.

The separation of humans from nature marks an important divide between western approaches to conservation from Indigenous worldviews and relationships with the land. Where white-settler and Eurocentric imaginations view wild landscapes as pristine, pure, and untouched, Indigenous worldviews see people as intrinsically part of nature (Tauli-Corpuz, Alcorn, & Molnar 2018; Gilio-Whitaker, 2019; Marshall et al., 2021). Valerie Curtois, from the Innu nation, emphasizes the importance of people in landscapes in a 2018 interview with the Narwhal (Linnitt, 2018):

> "It's a false premise to think that landscapes are at their best without us. It's not the natural state in much of North America. And we've seen that whether it's the use of fire to create berry areas or to manage large wildlife species … To me, this deep ecology where people have to be separate from nature is completely artificial."

Separating humans from nature is a key feature of common western conservation techniques like "fortress" conservation. Fortress conservation is characterized by the exclusion of people from protected areas, enforcement by park rangers, and limitation of use to activities deemed as appropriate such as tourism, safari hunting and scientific research (Dominguez & Luoma, 2020). In fortress conservation, governments are assumed to be the best custodians of the commons (Tauli-Corpuz et al., 2018). Here, the assumption is that governments, and not local communities, are the best managers of environments (Wilshusen et al., 2011). However, this assumption ignores different ways of understanding and relating to nature, and it

overlooks the role of local and Indigenous communities in stewarding ecosystems and landscapes (Wilshusen et al., 2011).

“Fortress” conservation, with governments exercising top-down control, has not resulted in better protection of lands. Instead, it has resulted in the loss of information, and slower and poorer responses to biodiversity loss. It has also been associated with **theft of Indigenous lands** and the **policing of Indigenous peoples’ harvesting activities on their own territories** (Prosper et al., 2011; Indigenous Circle of Experts, 2018; Dominguez & Luoma, 2020).

Claiming land for environmental and conservation purposes has led to land grabs and violation of Indigenous Peoples' land rights (Griscom et al., 2020b). “Where regulatory frameworks are weak, this can facilitate ‘green grabbing’, that is, appropriation of land and resources for environmental ends, displacing and marginalizing poor and vulnerable communities through securitization of resources … Some conservation or planting programmes have violated Indigenous rights by using them for labour, while restricting their access to what were previously commonly held ecosystem resources. This forces communities to find alternative fishing or hunting areas and can lead to negative impacts on stocks and biodiversity". (Seddon et al., 2021).

Transforming lands into **national parks** or declaring them **protected areas** has led to the displacement of Indigenous Peoples from their ancestral lands. The concern about separation and removal of Indigenous Peoples from their lands for national parks (and other reasons) was also raised in the Indigenous Peoples Earth Charter of the Kari-Oca conference in 1992 (p.5, 41-43). Worldwide, violence has been used to remove people from their lands, and these land grabs have led to loss of human lives (Tauli-Corpuz et al., 2018). The long history of persecution of Indigenous Peoples and local communities by park guards is still ongoing. In July 2020, “Park rangers and soldiers guarding Nepal’s famous Chitwan National Park have been accused of killing a man, setting fire to houses, and using their trained elephants to destroy homes in two separate incidents”, as reported by Meenakshi Ganguly for Human Rights Watch.

For all these reasons, it is critical to regulate land-tenure in favor of the traditional rights holders, and increasing the representation of local people’s concerns and recognition of their rights and needs when designing reforestation and top-down conservation initiatives (Myers et al., 2018).

Conservation of Protected Areas, are considered NbS (Cohen-Shacham et al., 2016). Tauli-Corpuz and colleagues (2020), examined the impacts of ‘conventional’

Protected Areas on the rights of Indigenous Peoples and other local communities. The study concluded that "the international community expanded Protected Areas... at a cost to Indigenous Peoples. This contradicts commitments made by the conservation community to UNDRIP and Indigenous Peoples' and other human rights" (Tauli-Corpuz et al., 2020, n.p.). The authors of this study emphasized that "across much of the world, [Indigenous Peoples] have become 'cornered' by [Protected Area] boundaries that overlap their lands while [Protected Area] policies and neighboring commercial concessions further separate them from land and livelihoods and justify killings and evictions, and livelihood and identity loss". Another study by Knox and Tauli-Corpuz (2021), concluded that "the best way to protect nature is to protect the human rights of those who live there" (n.p.).

Given this problematic track record of western conservation approaches, Indigenous Peoples and our allies need to be wary of the ways this new trend of NbCS may be replicating such approaches.

The Lack of Addressing Root Causes

Indigenous Peoples around the world have been fighting for decades for *climate solutions* that actually tackle the root causes of climate change; they've been making clear that fossil fuels need to be kept in the ground and that fossil fuel companies have to be held accountable. NbCS do not address these causes of the climate crisis.

Like other carbon sequestration efforts, NbCS aim to suck carbon pollution out of the atmosphere and store it (in this case in trees, soils and wetlands). NbCS is not designed to halt or reduce the sources of that carbon pollution. One of our concerns is that the more efforts there are in place to suck up and store carbon, the more it lets countries and industries off the hook from actually having to stop extracting and burning fossil fuels.

Graeme Reed explained to us that to be effective, NbCS needs to work alongside rapid decarbonization, meaning the fast transition away from fossil fuel based economic systems. To him, a major issue with NbCS is:

> "...how they could be used to avoid the conversation on required decarbonisation. Obviously even if we plant a billion trees, we're not going to offset the amount of carbon required. To me, it really comes back to this concept of net zero. Net zero is problematically described in most discourses as the levelling out of the balance sheets between the carbon we're

> emitting and the carbon we're capturing. I think that's pretty problematic as a framing to be honest, especially because it essentially opens up space for continued extraction as long as we offset it with these sorts of projects. That's definitely an issue - instead we should focus on net-zero as a just, equitable, and resilient future for our little ones" (Graeme Reed, Interview, Oct. 5, 2021).

The literature reviews conducted for this report also found that one of the most common and strongest critiques of NbCS is that it diverts attention away from addressing the root causes of climate change. For example, large-scale global reforestation initiatives, such as the Bonn Challenge to reforest/restore 150 million hectares or the New York Declaration on Forests to restore 350 million hectares, have been widely criticized by many in the scientific community (see Fajardo et al., 2021) due to concerns that these initiatives are diverting attention from the immediate actions that need to be taken to phase out the use of fossil fuels. Adequate and long-term measures to protect the remaining carbon-rich old-growth forests (i.e., ancient forests in British Columbia), and well-conserved biodiversity-rich ecosystems (e.g., the Amazon) are needed (Fajardo et al., 2021).

Furthermore, this diversion masks the ongoing human rights violations perpetrated by extractive companies and industries, and essentially lets these companies off the hook. As outlined by the World Rainforest Movement, an organization dedicated to support the struggles of Indigenous Peoples:

> "These [NbS] initiatives enable companies to convey the notion that their activities protect and create biodiversity, rather than destroy it. They make sure that extractive capitalism is seen not as a cause of environmental problems, but as the solution. Companies use these initiatives to encroach upon communities' territories, claiming that it is possible—using dangerous and costly technologies and practices—to offset the unprecedented damage they cause. Thus, in addition to hiding the root of the problems, conflicts, crimes and human rights violations suffered by communities, these initiatives increase the already strong economic, political and cultural presence of companies, granting them legitimacy in society. This means expanding and intensifying the usurpation and private appropriation of lands and territories, and the violation of the food security and sovereignty of communities and peoples who live and survive thanks to their relationship with their territories." (World Rainforest Movement, 2021).

Image by Nhattan Nguyen. 2021 Protect the Pines. A banner on a white van, part of the demonstration. The banner says "Sovereignty is the issue, Canada is the problem".

The Replication of Problems with Carbon Offsetting

> "Another issue with a lot of [NbCS is that] they're associated with financial arrangements. Not all are, but a lot of them are tied to certain financial arrangements where people are receiving compensation for their efforts to cultivate natural spaces that are conducive to lowering emissions of greenhouse gases in the atmosphere. Oftentimes those payment schemes are not what Native people would need, they're not really in alignment with Native peoples' goals. A deeper problem is carbon markets. Where is that money coming from? Which industries are not having to change [because of these payments]?" (Kyle Whyte, Interview, Oct. 6, 2021).

Tom Goldtooth, a member of the Navaho Nation and environmental, climate, and economic justice activist, has called attention to the continued commodification of nature through carbon trading:

> "Carbon trading, offsets and other market-based systems...turn the sacredness of our Mother Earth's carbon-cycling capacity into property to be bought or sold in a global market.... Carbon trading will not contribute to achieving protection of the Earth's climate. It is a false solution with many risks, including the dangers of entrenching and magnifying social inequalities and human rights abuses. From the Indigenous mindset, it is a violation of the sacred, plain and simple" (Tom Goldtooth quoted in Dillon, 2015, n.p.)

Many NbCS are associated with carbon offset and other carbon market schemes. Carbon offsets are projects that aim to sequester carbon or avoid the emission of specified amounts of carbon. They are based on the idea that carbon emissions can be reduced through assigning a dollar and allowing carbon emissions to be bought and sold (Gilbertson, 2017). On this basis, projects that help sequester and store carbon can receive payments based on the amount of carbon they can remove from the atmosphere (Bumpus & Liverman, 2015). Companies can invest in these projects directly or they can decide to buy the "carbon" absorbed by the project to "offset" their own carbon footprint. In other words, carbon offsets are purchased by polluting companies so that they can avoid reducing their own emissions and instead support carbon sequestration projects elsewhere. The United Nations Environment Programme's Centre on Energy, Climate and Sustainable Development identifies over 200 types of initiatives that can be classified as carbon offsets, and they range from reforestation and conservation to energy efficiency and renewable energy production (UNFCCC, 2021b). For example, REDD+ (Reducing Emissions from Deforestation and Forest Degradation) is a type of carbon offsetting initiative (Bertazzo, 2019). REDD+ initiatives focus on the critical role forests play in mitigating climate change by absorbing and storing large amounts of carbon (Coastal First Nations, 2017). Being a market-based carbon scheme, REDD+ projects receive payments based on the amount of carbon they absorb, and thus, governments and companies (most often from the Global North) pay other countries (usually those in the Global South) for carbon uptake.

In the Global South, where most REDD+ projects take place, the main issues related to the implementation of these projects is that such projects disregard the rights of forest-dependent communities (Climate Alliance, 2016). REDD+ initiatives almost always fail to fully acknowledge the complexities, uncertainties and potential or existing conflicts over rights and access to forests in the chosen project locations (Climate Alliance, 2016). REDD+ locks up forests, blocking access and the customary relationships and uses that Indigenous Peoples and local communities have with their forests (Durban Declaration, 2011). The Asia Indigenous Peoples Pact (AIPP), founded in 1988 and representing Indigenous Peoples from 12 Asian countries, reported that: "Clean Development Mechanism projects implemented in Indigenous peoples' territories have been disastrous for many communities, who have experienced land grabbing, displacement and food insecurity" (Dillon, 2015).

At the same time, carbon offset schemes have been leading to sources of revenue for some coastal First Nations (e.g., BC) and in some contexts these schemes are welcomed by and of benefit to Indigenous communities (Dillon, 2016). However, in many parts of the world, putting a price on carbon is incentivizing the removal of Indigenous Peoples from our traditional lands and territories and increasing

corporate control over the forests (Dillion, 2016). Indigenous Nations and communities are often pressured into signing contracts around carbon offsets and are not informed that the objective of the contract is to facilitate the continued pollution rights for industries and business sectors in other parts of the world (Gilbertson, 2017). Indigenous Peoples' right to free, prior and informed consent is rarely upheld by conservation NGOs, aid organizations, carbon brokers, corporations and governments in the negotiation and implementation of these programs (Indigenous Environmental Network & Climate Justice Alliance, n.d.). Indeed, it has been shown that carbon offset schemes such as REDD+ result in violations of UNDRIP Articles 10, 26, 27, 28, 29, 30, and 32, while leading to the criminalization of Indigenous ways of being (e.g., agriculture) (Indigenous Environmental Network, 2010).

Due to these profound problems, criticisms about carbon offsets and carbon markets in general have been increasing from policy-alternative makers, think tanks, NGOs, charities, and different civil society advocacy groups in locations where the projects have been or are being implemented (Goodman J., 2009; see also Elliot J. , 2020, Broekhoff, et al., 2019, Cushing, et al. 2018). Many of these critiques have been mounted by Indigenous Peoples around the world, calling out carbon trading as false solutions to climate change and as a form of carbon colonialism. For example, we have been arguing for decades that carbon offsets and other such schemes lead to the commodification and privatization of the lands, waters and sky we hold as sacred. Executive Director of Indigenous Environmental Network (IEN) Tom Goldtooth from the Dińe Nation has been asserting for decades that carbon markets "will only deepen the climate crisis and shift the burden ... to the Global South. Indigenous Peoples' territories, rights, and self-determination are all threatened by carbon offsets and the privatization of Mother Earth" (Quoted in Cultural Survival, 2019, p. X) In 2004, during the Durban Climate Justice Summit, over 20 organizations from Europe, the US, Latin America, India, and Africa clearly explained the ways that emissions trading can weaken existing efforts to address climate change and actually contribute to making it worse (Goodman, 2009). Their Declaration also emphasized that with the "process of creating a new commodity—carbon—the Earth's ability and capacity to support a climate conducive to life and human societies is now passing into the same corporate hands that are destroying the climate" (The Durban Declaration on Carbon Trading, 2004, p. X).

In 2011, in another Declaration drafted by a large coalition of Indigenous people stated that: "IIPFCC[3] rejects carbon trading and forest carbon offsets which commodify, privatize and commercialize forests. We are profoundly concerned that

[3] International Indigenous Peoples' Forum on Climate Change

REDD+ jeopardizes the future of humanity by providing polluters with cheap permits to pollute, thus further entrenching fossil fuel use, which is the major cause of the climate crisis. REDD+ also threatens the survival of Indigenous Peoples and may result in the biggest land grab of all time.

In 2018, again the need to reject of privatization of the atmosphere was clearly articulated in an Indigenous Environmental Network's press release, where Sky Protector Marlon Santi Gualinga (of the Kichwa People of Sarayaku in the Ecuadorian Amazon and a National leader of the Pachakutik movement) explained

> "Indigenous Peoples at COP25 have been pushing for the inclusion of Indigenous human rights language in Article 6 in regard to the regulation of carbon markets, and have been pushing for an emphasis on non-market based solutions, because carbon markets lead to the privatization and dispossession of Indigenous lands. The practice of extracting from Indigenous territories in one place and using Indigenous territories elsewhere to offset those emissions, while there's no actual development, is a flawed solution. It furthers violence against Indigenous Peoples and delays the transition from fossil fuels" (Quoted in Cultural survival, 2019).

Carbon offsetting and REDD+ have led to the violation Indigenous Peoples' rights to self-determination, self-government, and livelihood. They greenwash the destruction wrought by extractive industries', and they allow pollution and deforestation to carry on; they permit polluters to keep polluting (Indigenous Environment Network, 2018). They can offset carbon by investing in conservation of trees in the global south where carbon credits are cheaper. "They are now using the market system so that the people investing in the land are actually the polluting companies, they're underwriting these projects" (E. Deranger, personal correspondence, August 15, 2021).

Given that intact forests sequester carbon and most of the world's forests are found in Indigenous Peoples' territories, **many carbon offset projects are being implemented on Indigenous lands and in many of these programs, implementation is leading to "land grabs, killings, violent evictions and forced displacement" of Indigenous Peoples (Goldtooth, 2010)**. For some, **carbon offsets and related schemes are being described as a "new form of colonialism"** (Indigenous Environmental Network, 2010, n.p.).

Carbon offsets are driving violations of Indigenous and Human rights and meanwhile, they are not even helping reduce emissions. The lack of success from

REDD+ projects has been amply documented. For example, Reyes (2011) evaluated carbon offsetting projects and concluded that projects fell short of their emissions reduction targets. In 2017 the European Commission conducted a study and found that among the offsets projects used by the EU under the UN's Clean Development Mechanism, 85% failed to reduce emissions (Murphy, 2017)

Lee and Mertins-Kirkwood (2020) describe offsets as a get-out-of-jail-free card for heavy industrial emitters because this allows them to purchase credits from other emissions-reduction initiatives rather than reducing emissions themselves. They point out as well that counties such as so-called Canada have long been attracted to 'solutions' that do not require the country to fundamentally change how it does business. Offsets have also been criticized for supporting initiatives that would have happened anyway or that do not provide durable, long-term emission reductions (Lee and Mertins-Kirkwood 2020, n.p.). While failing to reduce carbon emission, carbon offsets allow polluters to keep polluting while also creating incentives to avoid emission regulations (Broekhoff et al. 2019).

Overall, the commodification of forests is leading to benefits for wealthy, polluting countries and corporations. And indeed, oil companies are actively lobbying in favour of the carbon markets, which are eroding the ability of local communities and Indigenous Peoples to continue to sustain themselves and care for their ecosystems (Indigenous Environmental Network, 2010).

These lessons learned from decades of failed and unjust carbon offset schemes need to be at the top of our minds as NbCS are promoted as the big new approach to climate mitigation. As ICA's Eriel Deranger has pointed out:

> "If Nature-based Climate Solutions become recognised and validated as carbon offsets, then Canada can literally sell our conservation projects to, for example, Royal Dutch Shell to offset a polluting project that they're doing in the Congo. And then you get into some really, really shady arrangements. So that's where Nature-based Climate Solutions becomes a land grab - because then there's a huge interest in our lands. We're already seeing major oil and gas companies and forest companies investing in conservation offsets all over the world because they're underwriting them. It'll basically be like, 'we'll pay you to manage these lands and forests' ... because they have a vested interest in being able to sell these as offset mechanisms, right?" (personal correspondence, August 15, 2021).

The Beneficiaries of NbCS

Given the likelihood of NbCS following the unjust patterns we've seen with carbon offsetting and other market based initiatives and given the horrendous track record of carbon offsets, the question we - and are others - are asking is: who has access to NbCS and who can and does benefit from them? (Kaufmann, et al., 2021).

Dr McGregor pointed out to us that, "so much money is being pumped into quantifying what is already happening, but where [are] the big funds to research how Indigenous Peoples actually take/took care of the land and build climate solutions based on that... Where is the funding for that? (D. McGregor, Interview, Oct 6, 2021). It appears that it is neither Indigenous People nor our projects that are benefiting from the current focus on NbCS. Instead, as Dr Whyte explained,

"Nature-based solutions are connected to payment systems that actually coddle the coal industry, the oil industry, the mining sector, and other contributors to high carbon footprints" (K. Whyte, Interview, Oct 6, 2021). Indeed, for the private sector, NbCS investments are being marketed as a real opportunity to seek revenue, to reap the benefits of increased resilience, to reduce costs and to enhance corporate reputation (United Nations Environment Programme, 2021).

The NbCS associated with forestry, agriculture, and wetlands projects, which industry and government are benefiting from, are more than likely to be happening on Indigenous lands (as we will explore in the next section) and there is a "lack of acknowledgement of who's benefiting from that" (G. Reed, Interview, Oct 6. 2021).

What also needs to be acknowledged in that "there are no real direct benefits coming back to our communities" (E. Deranger, personal communication, Aug 15, 2021)

Image from Allan Lissner during COP25. Various youth holding signs. Signs say "My land is not a sacrifice zone for false climate solutions", "#FixArticle6", and "Los Derechos Humanos No Son Negociables! #FixArticle6".

Eriel explained to our team that:

> "Canada has a track record of not accepting it when Indigenous communities want to have the control and maintain and protect their lands and territories. And then the Sustainable Development Goals came out and Canada has to increase their conservation in order to meet these International commitments they've signed on to, which are sort of wrapped up in the climate commitments. And so they think 'Oh, we should do two birds with one stone! We'll create Indigenous Protected and Conservation Area (IPCAs), and we'll pick the areas that are easy for us'.... **The problem is that Canada is utilising these mechanisms only where it's beneficial to them.** So, for example, you don't see them creating IPCAs in Wet'suwet'en territory. They'll go somewhere where there are less contentious issues around extraction. And they'll have these big celebrations ... they get to list it as a conservation zone, in partnership with Indigenous peoples! But we really need to be concerned that all these protection zones are going to start to be rolled up into the carbon market mechanisms under Nature-based Solutions and become internationally traded" (E. Deranger, personal communication, Aug 15, 2021).

The Location Where NbCS is Going to Happen

In our conversation with Dr Whyte, he asked the key question:

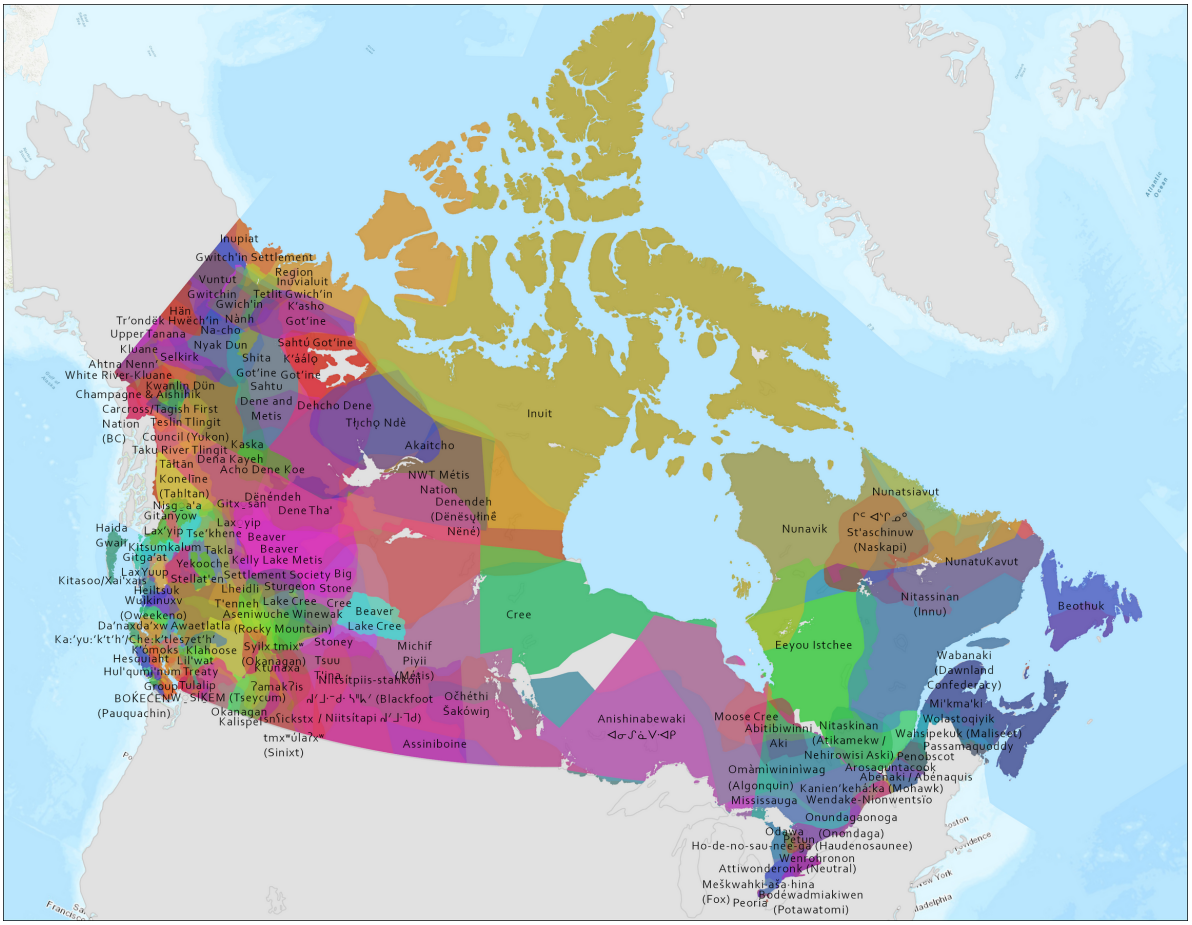
> "Where are Nature-based Solutions going to actually occur? A lot of times when we think of Native Peoples' lands, we think of the reserve or the reservation, but our lands are bigger than that. There are Ancestral lands, Treaty lands, Traditional Territories and Native people are doing a lot of things in these territories; so many Native people are working to restore those connections to those lands. One of the things that is scary to me is: what if you get large environmental organizations or government agencies just saying, 'Oh,those aren't the lands we associate with reserves or reservations, so we're just going to set up, block off the Nature-based Solutions on those lands. And then Native people have to struggle again, for our rights and responsibilities... We've seen this in other parts of the world play out" (Kyle Whyte, Interview, Oct. 6, 2021).

Indeed, the increasing interest of companies to offset their carbon emissions through reforestation projects has resulted in land theft in the Global South. This has also happened as NGOs buy land for conservation rather than respecting the land rights of local communities (Myers et al., 2018). Land grabs, and 'green grabs' have not been uncommon in conservation and carbon offsetting programs (Griscom et al., 2020b; (Seddon et al., 2021).). As such, close attention must be paid to the potential of NbCS to trigger more land theft.

Here we offer some maps and figures to illustrate the incredible extent to which Canada's carbon sequestration potential exists on Indigenous lands, and therefore the threat of new rounds of corporate interest on Indigenous lands.

Visualizing the threats of land theft in Canada due to NbCS.

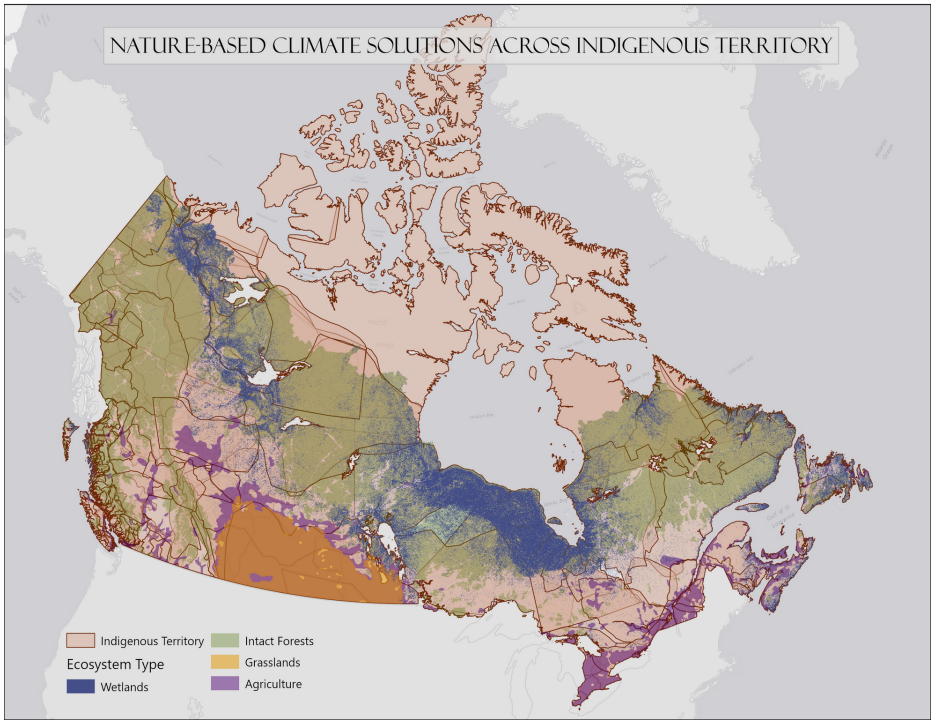
Firstly, **Map 1** shows that all of Canada is Indigenous land of some type or other (i.e.,reserve land, Treaty Lands, or traditional territory). **Map 1** shows this in rich detail (this map is based on data from www.Nativeland.ca[4]).



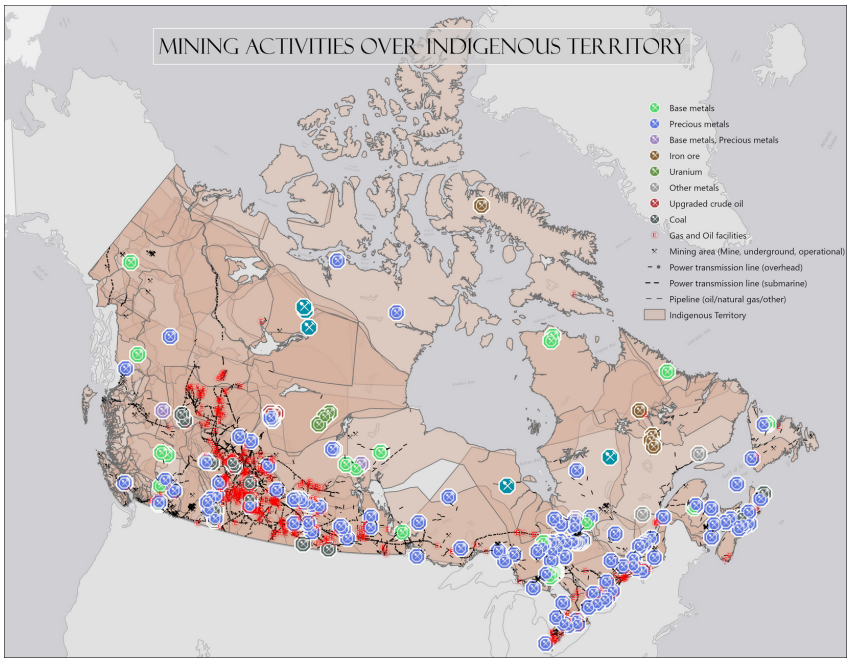
Map 1.

[4] Please note that the Nativeland website makes clear: "This map does not represent or intend to represent official or legal boundaries of any Indigenous nations. To learn about definitive boundaries, contact the nations in question. This map is not perfect -- it is a work in progress with tons of contributions from the community. Please send us fixes if you find errors."

Secondly, **Map 2** shows where the forests, wetlands, grasslands and agricultural lands with the potential to absorb and store carbon exist in so-called Canada. This map is based on analysis by Drever et al. 2021. The percentage of Canada (with grasslands, wetlands, forests, and ag combined) that will be targeted for their high carbon sequestration potential and therefore for NbCS projects is **71.2 %**. Given that all of Canada is Indigenous Lands, we can conclude that **71.2% of Indigenous lands will be of interest to those looking to invest in NbCS**. Different communities can see which types of NbCS projects may be sought on their territories.



Map 2.



Finally, **Map 3** shows the extent to which Indigenous Lands are already being threatened and stolen through extractive industries. We provide the map to emphasize that Indigenous lands are already under incredible pressure from corporate and government interests, and we invite our readers to imagine how NbCS are likely to further this colonial encroachment on Indigenous Lands.

Map 3.

We hope these maps help make clear that for centuries Indigenous rights and lands have been violated in order to extract the oil and gas, coal, and other resources that have caused the climate crisis. And as colonial governments seek to deal with the crisis they've caused "now our lands and territories themselves are being defined and targeted as necessary for climate stabilisation" (E. Deranger, personal communication, Aug 15, 2021).

The way Dr. Whyte put it is:

> "***Nature-based solutions have a high likelihood of just being land theft.*** We need to really think hard about whether any Nature-based Solution that we hear about is anything different than that. When we think about the problems of Nature-based Solutions we've been discussing, the risks are all associated with land theft ... in all the different ways that that Native people know what that means" (K. Whyte, Interview, Oct 6, 2021)

The Lack of Respect for Indigenous Rights and Authority

For Graeme Reed, the central concern about NbCS is about making sure that they are based on conversation and action that recognize Indigenous jurisdiction and colonial abuses of power, which so far, they are not. He hopes that the advancement of NbCS is grounded in the affirmation of inherent Indigenous jurisdiction and rights that stem from section 35 of the Canadian Constitution.

> "And now with the implementation of the UN Declaration on the Rights of Indigenous Peoples legislation, maybe there's even more of an impetus to protect those rights ... I guess the question is how do we create the appropriate safeguards, so that communities can exercise their self-determination to choose to participate or not participate with NbCS... and that through that decision process, we're not risking being removed from [our] lands and territories" (G. Reed, Interview, Oct 5, 2021).

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) was adopted by the UN General Assembly on September 13, 2007, and is considered a universal framework on the rights of Indigenous Peoples. The UNDRIP was approved by a majority of 144 states in favor, and 4 votes against from Australia, so-called Canada, New Zealand, and the United States, and 11 abstentions. Canada has since endorsed the UNDRIP (www.un.org). Yet, even as more "countries endorse [Indigenous Peoples

and local communities'] conservation, the rights remain limited in many countries." (Tauli-Corpuz et al., 2020).

For example, Article 10 of the UNDRIP states that "Indigenous Peoples shall not be forcibly removed from their lands or territories. No relocation shall take place without the free, prior and informed consent of the Indigenous Peoples concerned and after agreement on just and fair compensation and, where possible, with the option of return."

Article 3 of the UNDRIP states that "**Indigenous Peoples have the right to self-determination.** By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development" , and Article 5 that they have the right to "**maintain and strengthen their distinct political, legal, economic, social and cultural institutions**, while retaining their right to participate fully, if they so choose, in the political, economic, social and cultural life of the State".

However, NbCS projects fail to include Indigenous Peoples in their design, despite taking place on Indigenous lands. By implementing these projects without their consent and participation, Indigenous rights are violated. The absence of Indigenous communities in the decision-making processes related to NbCS is a serious issue. Eileen Mairena Cunningham (Indigenous Mitsiku from Nicaragua) and Dennis Mairena Araúz highlight the absence of Indigenous Peoples at the decision-making tables where NbCS are being defined and designed. They ask: "Where are the Indigenous Peoples who have lived in these areas for immemorial times and who, based on their traditional knowledge, have practiced NbS in a more harmonious way than the perspectives put forward by the international environmental organizations or even by the very institutions of the United Nations that are promoting them?" (Cunningham & Araúz, 2020, n.p.).

Furthermore, the lack of responsible policy, regulation making, and enforcement in NbCS "has allowed corporate-driven coalitions to position themselves as agents for implementing public policies with public resources, but without the accountability mechanisms, mandates and transparency standards of public institutions" (Foodsystems4people.org, 2021). According to the Indigenous Food Systems Network (2009), Indigenous Peoples also have the right to "possess, control, protect and pass on the traditional knowledge originating from our lands, territories and resources". Yet these rights have been affected by poor non-Indigenous management of conservation areas and "biocultural diversity losses have been largely caused by displacements of Indigenous Peoples from their traditional

ancestral territories, lands, and waters, mainly due to land grabbing and the establishment of “conventional” private or state-owned Protected Areas of restricted use" (in Fajardo et al. 2021).

Similarly, **Indigenous Peoples also have the right to food sovereignty.** “ [Food] is intrinsically linked to our historical, cultural and spiritual relations with our Mother Earth, our lands and territories” "Indigenous Peoples, and Indigenous women in particular, should have the right to participate in the definition of specific policies that affect our right to food." (Indigenous Food Systems Network, 2009). Yet a significant impact that has resulted from Western conservation measures, carbon-offset projects, and NbCS in several regions of the world, is the displacement of Indigenous Peoples and the barriers to accessing areas traditionally used to gather food. The right to food sovereignty is one of the multiple calls to actions from Indigenous Peoples around the world. As more and more lands are allocated for carbon sequestration, Indigenous Peoples may lose access to their own lands for growing food and sustaining their communities.

Western conservation and carbon offset programs have been notorious for the violation of Indigenous rights. We have every reason to be concerned that NbCS will follow the same path.

A Case Study of NbCS in So-Called Canada

To illustrate the risk and threats of NbCS we offer a case study of the **conservation complex in northern Alberta composed of the Wood Buffalo National Park (WBNP), five neighboring provincial parks and the Kitaskino-Nuwene Wildland Park, an Indigenous Protected Conservation Area (IPCA**). This boreal ecosystem of outstanding ecological and cultural value is under threat from upstream industrial activities namely the oil sands and the Site C hydroelectric dam project (CPAWS, 2014). While the new provincial parks and the IPCA have brought increasing collaboration between government, Indigenous communities, and industries, it is questionable whether these measures really address underlying colonial land management and water governance issues.

The history of these parks is a first cause for concern. Before the creation of the Wood Buffalo National Park (WBNP), the area had been home to the Dénésuliné since time immemorial and served as an important migration ground for birds, including the now endangered whooping crane, as well as the threatened wood bison (2, 2021; Mikisew Cree First Nation, n.d.). Seeing its ecological value, the WBNP was created in 1922, expanded in 1926, and declared a UNESCO World Heritage Site in 1983. A report by the Athabasca Chipewyan First Nation (ACFN) explains that the Dénésuliné were not involved in the park creation and instead "Denésuliné families [...] were expelled from the Park and separated from their families after 1926" (2021). They discuss at length the impacts of its creation and conclude that "in many ways, therefore, the Park played a key role in the history of colonization, elimination and cultural genocide perpetrated against the Denésuliné peoples whose lands and waterways WBNP takes up" (ACFN, 2021).

While the WBNP's creation "violat[ed] Denésuliné rights enshrined in Treaty 8", the government justified themselves by arguing that the area's valuable ecosystems needed protection; something that the Park has proved unsuccessful in ensuring (ACFN, 2021). In 2014 the Mikisew First Nation filed a petition to UNESCO to express their "longstanding concerns on the deterioration of Wood Buffalo National Park" caused by increasing industrial development (Mikisew Cree First Nation, n.d.). "We've got contamination from oil sands to the south, the delta is drying up because of the tremendous water use in the oil sands and the number of hydroelectric dams in BC to the west, uranium abandonment on the lake Athabasca to the east and to exacerbate everything we have climate change" (Melody Lepine from the Mikisew Cree

First Nation, In Danger, 2015). In response, UNESCO visited the park in 2016, and, agreeing with the Mikisew First Nation's concerns, they demanded that Canada organise a "major and timely response" to fix the situation without which they would consider adding the WBNP to the List of World Heritage Site in Danger (UNESCO World Heritage Centre, 2017).

Image from Eriel Tchekwie Deranger. Land based trappers tent in the back of a forest clearing with cut wood.

The government of Alberta took some measures to improve the state of the park and increase collaboration with Indigenous Peoples. It bought back 45 million dollars worth of oil and mine leases and in 2018 the government created five neighboring parks around the WBNP with Indigenous Guardian Programs and one IPCA managed by the Mikisew First Nation (Lavoie, 2018). Rupert Meneen, Chief of the Tallcree First Nation expressed his hopes of meaningful community engagement, "The Government of Alberta's commitment to work collaboratively with Indigenous communities to develop cooperative management plans provides a historic opportunity to have Indigenous knowledge and values influence land-use planning" (CCEA, 2018). The ACFN report offers a more hesitant perspective: "Historical distrust and a structure that tends to relegate Indigenous leaders to a consulting or advisory position (rather than to meaningful decision-making positions) has limited the potential of these approaches and left Denésuliné participants feeling sidelined and dismissed, as has been the case in the administration of WBNP since its creation" (2021, p.117).

Taking another step back, a new critique emerges, as explained by Melody Lepine in 2019: "The most important issue – the return of ecologically essential water to the Park – remains unresolved. And necessary monitoring and partnerships with Indigenous Peoples are still lacking" (Mikisew Cree First Nation). Increasing the area of protected forest cover is a first step, but it does nothing to reduce the impact of upstream industries.

In fact, oil companies like Syncrude (now Suncor) were important investors in the creation of the new parks and benefited through conservation offset credits for future developments. “Syncrude contributed $2.3 million to the Nature Conservancy of Canada, which made a payment for a timber quota held by the Tallcree First Nation” (Syncrude, 2018). Bill Loutitt, a McMurray Metis, explains that “Treaty 8’s Tallcree First Nation [...] generously relinquished their Birch River area timber licence and quota to enable one of the new parks (Birch River WPP) to proceed” (CCEA, 2018). Interestingly, while it was the Tallcree First Nation that forgave their timber extraction rights, it was Syncrude who received conservation offset credits for their monetary contribution. This allowed them to increase their industrial activities: “Syncrude’s investment provides a land disturbance offset for future mining development” (Syncrude, 2018).

By using NbCS to encourage oil industries to invest in conservation, these new parks are not only failing to address the root cause of the degradation but are enabling it further. In the summer of 2021, UNESCO released a draft letter for the inscription of the WBNP to the List of World Heritage Sites in Danger saying the progress has been insufficient, that the park still faces severe threats, and that the condition of its Outstanding Universal Value is declining (UNESCO World Heritage Centre, 2021). Unfortunately, this also has consequences on the livelihood of local Indigenous communities. “The Park was supposed to be protected, but with development all around, the entire ecosystem is at risk and that means the Mikisew is at risk” (Elder Matthew Lepine, Mikisew Cree First Nation).

Moving away from NbCS offset credits for conservation, proposed solutions include “establishing the peace Athabasca Delta Institute, resolving the interjurisdictional issues that undermine good water governance and securing sustained funding” (Mikisew Cree, 2021).

Image from Allan Lissner during COP25. Youth holding banners.

Conclusion

“Transformation of our global society will be possible if the leadership of Indigenous Peoples is respected” (Onjisay Aki International Climate Calls to Action, p. 3)

Through investigating these questions, looking at these maps and exploring this case study, we see clearly that although Indigenous Peoples have our own powerful practices of fostering solutions through our relations with our lands and waters, these are not the kinds of conceptions and practices being promoted and funded through this new NbCS trend in climate policy. These ‘solutions’ are being defined and designed by non-Indigenous governments, NGOs, and policy makers. These approaches seriously risk becoming no better than other carbon offsetting and conservation schemes that have again and again, around the world, violated our rights and stolen our land.

We will fight this new trend in climate policy. We will fight - at COP 26 and beyond - for our voices and our solutions to be heard among the endless barrage of false solutions. We need our allies to show up and resist the NbSC approaches that replicate the profound injustice of offset schemes and ‘fortress conservation’. We will fight for real solutions - the solutions that respect our rights, our responsibilities and all our relations. We’ve said it before, and we’ll say it again:

Colonialism caused climate change; Indigenous rights are the solution.

To help guide this fight for real solutions, we offer these KEY DEMANDS:

1. **Refuse** to participate in climate policy development or implementation that **excludes Indigenous Peoples** as rights holders and decision-makers or that in other ways violates our rights.
2. Reject all solutions that allow the continued extraction of fossil fuels. **Rapid decarbonization** must happen alongside other approaches to climate mitigation and adaptation.
3. Develop, support and fund **accountability and enforcement mechanisms** to hold industry and governments accountable for ecocide and genocide.
4. Support and enact climate solutions that **transform power inequities** and social hierarchies.
5. Fund research by Indigenous Peoples about **how Indigenous Peoples around the world have been taking care of our lands and waters**, filled with biodiversity and carbon rich ecosystems[5]. Build climate solutions based on these approaches. *Fund these practices.*
6. Fund Indigenous-led and Indigenous designed and determined relation-based solutions; of **getting more Indigenous folks out on the land**, to support more people relearning how to listen to what the land is telling us.
7. Develop **holistic solutions** that take into account not just climate and carbon, but also biodiversity, language, health, food security, livelihoods and more. Siloed thinking got us into this mess, it will not get us out.
8. Support and fund Indigenous **language revitalization** as climate solution; it is through our languages that we can best listen to the land and hear its solutions.
9. Design, promote and fund climate solutions that **return Indigenous lands** to the Peoples from whom it was stolen.
10. Climate solutions need to fundamentally be about healing. It is not okay to try to use nature to fix the problems that we continue to create. Climate solutions should be about doing whatever we need to do to **let the land heal**.

[5] We acknowledge Deborah McGregor for sharing this idea with us.

“We can repair the relationships and establish certain relationships anew. That is a very powerful form of climate action”

(K. Whyte, Interview, Oct 6, 2021)

“NbCS should be about opportunities for people to reconnect with the land wherever they are... being on the land, learning what the land is telling you... having faith in your own senses. We need to support projects that create this kind of access"

(D. McGregor, Interview, Oct 6, 2021)

“As Native people, we understand that there are all sorts of different ways to conserve land and conserve territory that would really contribute to lowering carbon footprints. We also know that the type of biodiversity that we're seeking also includes human diversity. Those same lands need to be places where people can be educated, where people can engage in cultural and ceremonial activities, where people can exercise their sovereignty, exercise harvesting and other practices that have been handed down to them...The lands need to be regenerative, restorative, and conducive to rebuilding our communities. The types of initiatives that need to be supported, are these much more regenerative and holistic Indigenous approaches to conservation, which are going to go far in reducing carbon footprints, but are really going to make sure that that next generation has the confidence, the motivation, the education, and the leadership potential, to continue these important environmental behaviours”

(K. Whyte, Interview, Oct 6, 2021)

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