

Where Canada Stands

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*A Sustainable Development
Goals Shadow Report*



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The **British Columbia Council for International Cooperation (BCIC)** is a network of civil society organizations and individuals moving toward a better world based in British Columbia, Canada. Through coordinating this report, BCCIC hopes to contribute informed and reputable voices from civil society into the critical debate on Canada's role in developing and achieving the Sustainable Development Goals (SDGs).

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FOREWORD

We are pleased to offer this fourth report in a series on Canada and the SDGs. September will mark one fifth of our way on the journey toward 2030 and the hoped for transformation of our world. The UN has concluded we are dangerously behind in that journey and here at BCCIC we believe Canada has not pulled its weight. The purpose of a Voluntary National Review, which Canada will undertake this year, has always been to give a genuine progress report such that we can increase our collective chances of surviving this perilous journey. We offer this report in that spirit. Canada is a unique country, with a globally significant role to play, and this report asks us to up our game.

This past year, BCCIC undertook a formal inquiry through the auditor general's office regarding Canada's contributions toward the SDGs. It coincided with the Environmental Commissioner's April 2018 report that concluded Canada was woefully unprepared. Our country lacks coordination and the will to demonstrate leadership despite being uniquely positioned. Individual departments, through outstanding initiatives such as Global Affairs Canada's Feminist International Assistance Policy or Statistics Canada's SDG portal, prove that we can be innovative and forward thinking. However, our country lacks a whole of government approach. This is compounded by the federal nature of our political system in which provinces and cities have jurisdiction over key components, if not entire goals and sub targets of the SDGs.

We are encouraged that Canada has committed \$100 million dollars this year toward SDG implementation and coordination. Clearly, this commitment would benefit from a multi-stakeholder approach and creative governance structure. We believe it would benefit enormously from direct civil society engagement. Civil society has much to offer as demonstrated by our reports. We are proud to encourage youth to be meaningfully engaged. We are disappointed that neither CSOs nor youth in Canada have been meaningfully engaged in the lead-up and involvement at the HLPF.

More than 25 people will attend the HLPF this year from BC, of whom at least two thirds are young people. Youth, in particular, are an important voice to help tackle the SDGs intergenerationally. Our community roundtables and BC 2030 campaigns have engaged 32 communities and almost 1,000 leaders across British Columbia to drive home the point that the goals will never be achieved without effort at multiple scales. In short, more effort, more perspectives, more people and more energy are required to meet the greatest challenge of our time. The creation of Alliance 2030 bodes well in this regard. BCCIC is proud to be a founding member.

We appreciate the time and energy of all of the contributors to this report. Our Movement Map has proven that there are thousands of people like them equally motivated in British Columbia to turn our country's performance around. We look forward to the next 12 years of meeting this challenge and hope this report serves us all in that direction.



Michael Simpson
Executive Director, BCCIC

EXECUTIVE SUMMARY

Canada is presenting its Voluntary National Review on progress toward the 2030 Agenda and its attendant 17 Sustainable Development Goals (SDGs) this year at the UN High-Level Political Forum (HLPF). Assessing performance on 65 targets across Canada is a large task, with targets falling under the jurisdiction of various municipal, provincial, and federal departments. A diverse population spanning nearly 10 million square kilometers further poses a risk that subnational nuances will be overlooked in an official national review. With the aim of providing a fuller picture of sustainable development in Canada, BCCIC presents this shadow report to the official Voluntary National Review (VNR). The British Columbia Council for International Cooperation (BCCIC) analyzed national quantitative data, interviewed experts, and gathered regional case studies to provide a balanced view of how well SDG targets are being met through the subnational and civil society lens.

Within civil society there is overall consensus that Canada is not on track to implement the 2030 Agenda. First, Canada is lagging behind in meeting many of the indicators, as was the finding of a 2017 report by the Brookings Institution. Of the 169 quantitative SDG indicators assessed, they found that Canada is on track for 17 indicators; needs acceleration for 12; needs a breakthrough on 26; and requires a reversal of negative trends on 18.¹ Faster progress is required on at least one target under each of the goals, highlighting the need for a stricter commitment to meeting the targets in all areas of Canadian society.

These findings are synonymous with the findings of this report. At the end of 2017, 67 rural and Indig-

enous communities across the country do not have access to clean drinking water, and 40 of them had been under boil advisories that were standing for over a decade. Canada must adjust its recycling and waste management programs to ensure that the sector can continue to ensure long-term environmental and economic sustainability, and to adapt to the emerging trend of developing countries refusing to import our waste. Transportation planning in urban centres punishes residents who opt for more sustainable modes of transportation, as cyclists and pedestrians see higher mortality rates in traffic accidents due to automobile-biased urban planning. Half of Canada's monitored species have been under decline in the past several decades, and several populations of iconic Canadian wildlife such as mountain caribou are on the brink of extinction.

A primary reason Canada is not on track to achieving the SDGs is because the government has not established the necessary governance, monitoring, and reporting structures for the successful implementation of the 2030 Agenda. In 2017, BCCIC submitted a petition to the Commissioner of the Environment and Sustainable Development asking for clarity on the roles and responsibilities of federal agencies in achieving the SDGs, as well as how civil society, subnational governments, and youth will be engaged in the process. The findings from the petition process showed a lack of coordinated federal leadership, an absence of a robust and transparent data collection and monitoring framework, and no government-led opportunity for civil society consultation and input into the process. Similarly, a report from the Office of the Auditor General identified a lack of leadership at the federal level and concrete plan to implement

¹ McArthur, John, and Rasmussen, Krista. *Who and what gets left behind? Assessing Canada's domestic status on the Sustainable Development Goals*. Brookings Institution, 2017.

the 2030 agenda.² As per the Auditor General’s recommendations, the Government of Canada would need to coordinate among five main government bodies—Employment and Social Development Canada, Environment and Climate Change Canada, Global Affairs Canada, Status of Women Canada, and Indigenous and Northern Affairs Canada— to develop a clear national implementation strategy with clearly defined roles for government bodies, a framework for stakeholder engagement, a monitoring and reporting system, and a set of national targets that are sensitive to the Canadian context. Statistics Canada’s SDG Portal—Canada’s intended single source for indicator data— is still quite nascent and its contribution to the needed whole-of-government approach is yet to be seen.

A key guiding principle of the 2030 Agenda is that no one should be left behind. As detailed in this report, many groups are currently “left behind” in Canada under the goals under review this year, including Indigenous communities, youth, and women and girls. Natural ecosystems are also being left behind as progress is made toward economic targets. In order to reverse this trend, these key groups must be involved in Canada’s overall SDG implementation strategy, from planning to monitoring and reporting. Most importantly, these groups, along with subnational governments should receive support from the federal government to carry out on-the-ground initiatives to meet SDG indicators, as these groups best understand the idiosyncratic needs of individual regions and communities.

² Report 2—Canada’s Preparedness to Implement the United Nations’ Sustainable Development Goals. Office of the Auditor General of Canada. 2018 Spring Reports of the Commissioner of the Environment and Sustainable Development, 2018. http://www.oag-bvg.gc.ca/internet/English/parl_cesd_201804_02_e_42993.html#

“Canada has not established the necessary governance, monitoring, and reporting structures for the successful implementation of the 2030 Agenda.”

Building on *Where Canada Stands*³ - last year’s civil society assessment of Canada’s progress on the SDGs - this report assesses SDG implementation in Canada through the guiding question: “*who is getting left behind?*” For each SDG under review this year, both the national and sub-national contexts were considered through regional analysis and the presentation of case studies. Experts interviewed in these areas represent Indigenous communities, universities, think tanks, NGOs, CSOs, youth, industry, and various levels of government. The case studies were selected to represent a diversity of regions, and to highlight success stories where targets were met and no one was left behind.

³ <https://www.bccic.ca/wp-content/uploads/2017/07/HLPF-Report-Online-Version-v3-24072017.pdf>

REPORT LIMITATIONS

At BCCIC we acknowledge the limitations of this report, such as the lack of standardized data. Much of the data we do have is aggregated and does not reflect Canada's regional and demographic diversity. We have supplemented the views of our experts with data that is more specific to the Canadian context; however, we recognize that there may be omissions and inconsistencies in the measurements used.

We acknowledge that the scope of this report is curtailed by the limitations and global nature of the SDGs themselves. Notably, the SDGs presume a binary notion of gender. However, gender equality must be inclusively defined across all genders, including members who identify as transgender, in recognizing progress towards attaining equality.

Other areas where the SDGs are lacking include, but are not limited to, emphasizing the importance of providing services for good mental health, ensuring the rights of internally and externally displaced persons, and evaluating supports for youth in care. As Canada develops their own indicators, these limitations of the SDGs must be address and incorporated in the national reporting strategy.

Since Canada is a heterogeneous country in race and ethnicity, we recognize that there is always room to capture as much of Canada as possible, though there are limitations in doing so, such as the lack of disaggregated data. Despite our best efforts to reach out to diverse experts on the goals, we were unable to incorporate the perspectives of the LGBTQ+, immigrant, and refugee communities into this report.

Furthermore, we approached Indigenous experts to speak on each of the SDGs under review, keeping in mind the principle of “no one left behind”. However, while we were able to interview Indigenous experts for goals 7, 11 and 17, we were not able to arrange interviews with Indigenous experts for goals 6, 12 and 15 within our timeline.

In February 2018, the British Columbia Council for International Cooperation (BCCIC) held a civil society led workshop with various government departments - including Global Affairs Canada, Indigenous and Northern Affairs Canada, Environment Climate Change Canada, and Statistics Canada - to provide

national input and recommendations to Canada's Voluntary National Review (VNR) in the hopes that civil society and the Government of Canada would be able to collaboratively develop a VNR that reflected inclusivity and showed global leadership. Unfortunately, the federal government declined the opportunity to co-create a VNR that incorporated civil society input in a meaningful way and instead chose to solicit "vignettes" from organizations across Canada to use as highlighted case studies in the official VNR. As a result, BCCIC produced this shadow report to supplement Canada's VNR in an effort to represent an "on-the-ground" civil society perspective that is more geographically and demographically diverse. We also made efforts to outreach to various ministries at a federal and provincial level for their input and partnership on this report but they all declined to contribute. Most Cited that as public servants, it was not appropriate for them to comment on Canada's actions and progress in implementing the 2030 Agenda.

As a final note, many of the views expressed in the report are the opinions of the experts we interviewed. Such diverse representation brings with it diverse recommendations for solutions and you may therefore find expert advice that appears to contradict one another. However, at BCCIC we acknowledge that value of a plurality of approach to sustainable development. Whether it is changing individual values and behaviours, or focusing on systemic change and evolving cultural norms, we at BCCIC believe that all the recommended solutions presented in this report hold value and that together they can provide a multi-faceted approach to sustainable development.

SDG PROGRESS REQUIRES RECONCILIATION

We would be remiss if we did not outline that the lagging outcomes for Indigenous Peoples are largely a product of Canada's colonialism. The Canadian government created a systematic plan to assimilate Indigenous Peoples, including taking Indigenous land without permission, banning traditional culture and languages, and placing children in residential schools where they were abused physically, emotionally, and sexually. The Truth and Reconciliation Commission (TRC) declared that Canada's treatment of Indigenous peoples amounted to a cultural genocide.

The federal government has expressed a commitment to moving toward reconciliation with Indigenous Peoples, which is an improvement over previous governments. There are a few clear steps to making progress; namely, the government must expediently implement the TRC's Calls to Action and the UN Declaration on the Rights of Indigenous Peoples (UNDRIP).

ACKNOWLEDGEMENTS

We would like to extend our deepest gratitude to all those who contributed to the creation of this report, without whom its production would not have been possible.

Specifically, thanks must go to our expert interviewees, listed in alphabetical order of their last name: Dr. Zafar Adeel, Christopher Bell, JP Bervoets, Oliver Brandes, Gavin Charles, Naiara Costa, Neil Fletcher, Dr. Penelope Gurstein, Chris Henderson, Dr. Meg Holden, Stefan Jungcurt, Jamie Kaminski, Christine Korol, Ugo Lapointe, Tony Maas, Satnam Manhas, Rosanna McGregor, Dr. Jatin Nathwani, Andrea Reimer, Chris Rider, Rikia Saddy, Helen Scott, Kim Scott, Dr. Wynet Smith, Dr. Eric Taylor, Yannick Touchette, Julie Wright.

We would like to recognize the incredible hard work and dedication of Colton Kasteel, Keila Stark, Gen Nacionales, Grayson Barke, and Iqra Manzoor, who all played a leading role in the development and writing of this report. Special thanks to Deborah Glaser as well, who coordinated and edited the report.

We would like to recognize the incredible hard work and dedication of the many volunteers, interns, and staff who contributed to outreach, research, writing, design, and editing of this report. The original artwork featured for each SDG in this report was created through a cooperative process, sharing the themes between 3 artists: Emily Thiessen, Kristin Agnello, and Adrian McKerracher, who also created the cover image. Thank you to Courtenay McKay for the design work and to Diane Connors for coordinating the design.

SUSTAINABLE DEVELOPMENT GOALS

The United Nations Sustainable Development Goals (SDGs), also known as the “Global Goals”, are a framework of 17 goals that aim to address the world’s environmental, social, economic, and security challenges. Unprecedented in nature, these new goals are:

- **universal:** the goals apply in every country, including Canada
- **integrated:** achievement of any goal is linked to the achievement of all the others
- **aspirational:** acknowledging the need to move past business as usual and seek transformative solutions

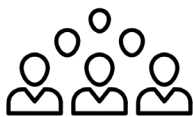


THE GLOBAL GOALS For Sustainable Development

Some say the goals are unrealistic, there are too many and the expectations are too high. Can we really eradicate poverty everywhere in all of its forms including extreme poverty in only fifteen years? They point to too many specifics and claim the agenda, estimated to cost trillions, will be too expensive. The entire process, they claim, is unrealistic. These critics fail to see the point. The SDGs were developed from the bottom up, across the entire planet over a period of years, based not on what is realistic in our time but on what our species aspires to. When we first proposed walking on the moon it must have seemed unrealistic and expensive. The SDGs are a dream statement, not of what we can currently accomplish but what we must accomplish. Like a stretch goal it is a statement about imagination and hope and what our vision should be in its purest form. Anything less is a disservice to future generations. Worrying about cost is to miss the point. The original motivation for international cooperation and the UN itself is wrapped in the history of conflict. War is more expensive than peace and without the foundations of sustainable development we risk this more expensive option. We easily find the motivation today to spend trillions in regional conflicts. Finding trillions to solve our greatest challenges to life on this planet is a matter of perspective and motivation. The SDGs provide the visionary framework for us to move toward this better world.

CROSS-CUTTING THEMES

Across the goals, the report addresses four cross-cutting themes: Indigenous communities, gender, youth voices, and climate change. These themes highlight the intersectional nature of the SDGs and emphasize four key aspects of Canadian society that deserve attention and focus.



Indigenous Communities

Canada must build true nation-to-nation relationships between the federal government and Indigenous communities, affirming self-governance structures for community-led change.



Climate Change

All levels of government must consider the climate impacts of each policy to ensure long-term resiliency and sustainability.



Gender

Gender equality means supporting human rights and advancing full participation across all genders. Specifically, women and girls must be empowered to reach their full potential so they can earn and contribute equally within their communities.



Youth

Youth must be recognized as a vulnerable population and their voices universally included in decision-making.

Community by Shashank Singh from the Noun Project.

Gender Equality by Nakul Dhaka from the Noun Project

PROTECT THE PEEL: A CANADIAN CASE STUDY OF CROSS CUTTING-THEMES

Expert Contributor

Chris Rider, Executive Director, Canadian Parks and Wilderness Society (CPAWS) Yukon

Background

The Peel watershed, located in the Northeast of the Yukon Territory, is one of the last remaining large-scale watersheds left largely intact in North America. It is critical to the territory, maintaining clean water and land, hosting abundant wildlife and a rich biosphere on which local communities depend. The Watershed is the traditional territory of three Yukon First Nations, the Na-Cho Nyak Dun, Tr'ondëk Hwëch'in and Vuntut Gwitchin, as well as the Tettit Gwich'in First Nation of the Northwest Territories.



“When it comes to SDG 15, there are so many people from First Nations who expressed the fact that they have a relationship with that landscape which has lasted millenia, and preserving that relationship is key.”

—Chris Rider, Executive Director of CPAWS Yukon.

Source: Peter Mather, Protect the Peel Photo Gallery.

In 1998, in response to the territorial government's call to open a significant portion of the watershed up to natural resource extraction projects, the Protect the Peel campaign began with Juri Peepre, the founder of Canada's Parks and Wilderness Society (CPAWS) Yukon, with the intention of protecting large-scale wilderness. It was a particularly unique campaign in that it brought First Nations, conservationists, youth, and other groups together to make a powerful statement on local land-use planning.

Above all else, the campaign was / is tied most closely to the health and rights of local Indigenous peoples. There are a multitude of threats posed to the health of Indigenous communities across Canada. Additionally, communities such as Old Crow (whose residents belong primarily to the Vuntut Gwitchin First Nation, located near the Peel watershed) are at the forefront of climate change. Across the Northern landscape of Canada, for predominantly Indigenous and remote communities like Old Crow and Inuvik, the impacts of climate change are starkly visible even today. Changes to the landscape, including melting and shifting permafrost and collapsing ice shelves, are not hypothetical impacts for the local residents. "They're happening right now. It is really easy to forget that, when you don't spend time in those communities. They seem so remote and so far away from day-to-day life [for an average

person] in a large city like Vancouver", remarks Chris Rider, Executive Director of CPAWS Yukon. Climate change, on the ground, does not impact large urban centres in the south of Canada like it does in remote communities. For people living in the remote Northern communities of Canada, it is a reality they are face every day. In addition, these small communities also face extraneous threats, such as the United States government trying to open the Arctic National Wildlife Refuge in Alaska to oil and gas development. Rider notes, "[this has] potentially huge impacts on the Porcupine Caribou herd; a herd which, for people in nearby communities, particularly those in Old Crow and the Alaskan Gwich'in communities, have depended on and built their lives around for millenia." Impacts on the Caribou herd and other local wildlife in this region will have immeasurable impacts on the nearby Indigenous communities, particularly given the cost of food in the north. For local residents, it is not as simple as commuting to a local grocer and buying meat and vegetables for a small price. Almost all the remote Indigenous communities in question are fly-in communities, which rely heavily on their traditional practices of collecting and hunting from the land in a sustainable manner. Without conservation and protection, their livelihoods are at risk. The Peel watershed is an excellent example of the multitude of services local lands offer Indigenous peoples in Canada, when cared for and conserved. "Local rivers have been described as a breadbasket for the First Nations who rely on that land", Rider remarks. They provide and feed a plethora of resources to the communities, from medicine to food, water, caribou, fish, and more, there are simply countless services provided by the landscape. This is a stark contrast to the south of Canada: "When your entire experience of food gathering is going to the supermarket, it doesn't really compare", Rider adds. With this in mind, broad protection of the watershed is of critical importance.

Overview of Differences between the Peel Planning Commission’s Final Recommended Plan and Yukon Government’s Peel Watershed Regional Land use Plan

Peel Commission’s Plan	Yukon Government’s Plan⁴
<p>55% Special Management Area: Permanent protection from mining and oil and gas exploration and development. Existing mining claims continue but no surface access to them.</p> <p>25% Wilderness Area: Interim protection from mining and oil and gas exploration and development – to be reviewed at the next Plan review in approximately 10 years. Existing mining claims continue to exist but no surface access to them is allowed.</p> <p>20% Integrated Management Area: Roads and industry are allowed.</p>	<p>29% Protected Area: No new mineral staking or oil and gas exploration. Existing mining claims continue and “temporary” surface access to them is allowed for advanced exploration and mine development. All of the “Protected Areas” have mining claims in them except Landscape Management Units 11 and 12, the Blackstone and Hart Major River Corridors, and parts of the Peel main stem and Snake River Wild River Parks. Therefore the amount of “Protected Areas” where roads and mines could not occur adds up to only approximately 14% of the Peel region.</p> <p>44% Restricted Use Wilderness Areas (RUWA): New claim staking, roads and mines allowed within a .2% surface disturbance limit. No oil and gas development allowed AT THIS TIME.</p> <p>27% Integrated management Areas: Roads and industry are allowed.</p>
80% of Peel region protected from roads and industry.	Approximately 14% of the Peel region protected from roads and industry.
New mineral staking allowed in 20% of Peel region.	New mineral staking allowed in 71% of Peel region.
Oil and gas development allowed in Integrated Management Areas: 20% of Peel region.	Oil and gas development allowed in Integrated Management Areas: 27% of Peel region. Although oil and gas development is not allowed in RUWA’s at this time, the plan allows for this to change in the future.
Uranium exploration and development: Not allowed anywhere in the Peel until Yukon government develops policies and guidelines for uranium exploration and mining.	No specific mention of uranium exploration and development, so they are allowed in Integrated Management Areas and RUWA’s.
Air access in Special Management Areas and Wilderness Areas: no new air strips.	In Protected Areas: New air strips allowed for “reasonable access” for mining of existing claims.
Dempster Highway subregional plan is required.	Dempster Highway subregional plan is required.
Wind River Trail no longer recorded as an existing route under the Yukon Highways Act. Wind River Trail cannot be developed into a winter or all season road because it is in a Special Management Area.	Wind River Trail no longer recorded as an existing route under the Yukon Highways Act. But it could be developed into a winter or all season road since it is in a RUWA. An environmental assessment would be required to develop it into a road.

Source: *Protect the Peel Public Dropbox*

4 Since the 2016 territorial election, a new Liberal government has been in power. The plan outlined here was proposed by the previous Yukon government and made void by the Supreme Court of Canada’s decision.

Agenda 2030

In response to how the SDGs intersect with the Protect the Peel movement, Rider notes: “The SDGs are a framework for a more equitable world... [and] the Protect the Peel case was an example of how we can work together to achieve that. While it doesn’t touch on every SDG, it meshes nicely.” As noted, the watershed is vitally important to local communities and wildlife, which depend on the health of land and water to sustain themselves. As a result, its purpose and protection are closely aligned with SDG 14 and 15 (Life Below Water and Life on Land). “When it comes to SDG 15, there are so many people from First Nations, three of which we worked with in the Peel legal case (and another as an intervenor), who expressed the fact that they have a relationship with that landscape which has lasted millenia, and preserving that relationship is key”, Rider adds. This intergenerational preservation of land is not just a matter of wildlife protection and cli-

mate action, but also an example of decolonization, in that it connects Indigenous youth with their ancestral roots to the land and their elders. The watershed also has implications for Canada’s broader climate change goals, in alignment with SDG 13 (Climate Action). The Peel is the definition of large scale wilderness, totalling approximately 68,000 km² (equivalent to the size of the entire province of Nova Scotia). Keeping its functions intact is vital to climate change mitigation in Canada, especially from a migration perspective for the animals who depend on the land. As climate change alters the landscape, keeping large-scale wilderness that allows wildlife to adapt will be, and is, incredibly important in maintaining biodiversity. Lastly, SDG 17 is undoubtedly tightly intertwined with Protect the Peel, as partnerships were of the utmost importance in the movement’s success. Its partnership intersections are a key example of how the case came together so well.



Source: Peter Mather, Protect the Peel Photo Gallery

Youth

In addition to including youth as a stakeholder, the Protect the Peel movement spurred new local initiatives furthering youth environmental engagement in the region. For example, “Youth of the Peel” was originally a project CPAWS helped establish with youth from the Peel First Nations, which comprises the Na-Cho Nyak Dun, Tr’ondëk Hwëch’in and Vuntut Gwitchin and Tetlit Gwich’in First Nations. This program brought together youth from the aforementioned communities into the Peel watershed on a canoe trip, to learn about tourism training and to connect with the land. Rider notes, “After completion, three youth involved in the project decided there was such value in that trip, bringing youth onto the land and training them with those tourism wilderness guide skills, that they formed their own organization, Youth of the Peel.” The organization has since completed two trips through the new organization and brought several youth out to experience the beauty of the Peel watershed. It is a testament to both the success of the movement and to the unique importance of the Peel, that First Nations youth were inspired to take on ownership, and reclaim their lands both spiritually and environmentally.

Outcome

The legal case, which had the Supreme Court of Canada hearing in March 2017, was the first time that First Nations and conservation groups appeared in front of the Supreme court on the same docket as co-litigants, noted Chris Rider. Environmental organizations such as CPAWS were not there as conservation groups providing moral support, and First Nations were not there providing their voice to elevate a conservation campaign, rather, the two groups were united in the legal battle. “[It was] pretty special to see the way the environmental community and First Nations came together”, reflects Rider. The court case’s outcome recognized that when it came to the question of climate change, having protection for such a large landmass is critical to preserving biodiversity in the local communities. In the coming years, wildlife will require space to adapt to the changing environment. Moreover, it noted that First Nations communities will need adequate landscapes available to them to continue to access the meat and plants that they’ve relied on for generations. Finally, it also acknowledges the importance of land acting as a carbon sink. Not only does land help to adapt to climate change, but large-scale protection like that with the Peel acts as a climate change mitigator by keeping that carbon in the ground and providing plants and trees to absorb CO₂.

“The legal challenge is now complete, and I could not be happier with the outcome” Rider says. The basis of the case was to uphold the text and intent of the final agreements signed by First Nations and the Yukon government on behalf of all Yukon residents. By preserving the agreements, the court ensured that the government of Yukon is forced to act in a way that upholds the honor and integrity of the crown. Moreover, the language of the ruling limited the amount of change able to be made in the future, which helps to ensure that future governments preserve the agreement in an honorable and forthright way, and are held to account. Now concluded as of June 2018, negotiations are back “to where they should have been in 2011, where consultations will need to happen on the final stage of the final recommended plan”, Rider adds. Government and First Nations are putting out minor modifications, with community members and environmental groups waiting to see how those consultations will be shaped. Once complete, the plan will be finalized.

Implications

Reconciliation

In terms of livelihoods, particularly for the Porcupine caribou herd and the work done to-date with the Vuntut Gwitchin to elevate their voices and support them in their fight to protect the herd, the Peel's protection is critical to ensuring that their traditional way of life can be sustained for millennia more. Rider remarks: "There's been a history of colonialism in the conservation sector. Conservation groups like Parks Canada have had a long history of determining what's best for the land, and forcing that upon First Nations whether that's something they want to see or not." The Peel watershed case is an example for how conservation should be pursued in the future. Listening to First Nations and supporting them where they want to conserve land and livelihoods in the spirit of partnership is critical to moving towards a new era of reconciliation in Canada.

Canada's Land-Use Planning Future

The Peel Watershed case is an important example for the conservation sector, demonstrating the importance of listening, engaging and working with First Nations in partnership, rather than determining personal interest in advance and pursuing them over the rights and preferences of Indigenous peoples. The final agreements signed by First Nations in the Yukon has the potential to be a model for Canada, as it provides an outline for how Yukoners and First Nations, working together, hold immense power and leverage over the direction of land-use planning. "It's exciting work and something that Canada could benefit from", Rider adds. This example advances the importance of partnerships in building a sustainable future. Canada possesses almost an incomparable wealth of resources and land, which is host to countless species and provides countless for public services, unaccounted for in our economy. Indigenous peoples, keepers of generations of traditional ecological knowledge for land-management, are best situated to take the task of stewardship. Canada must not undervalue the knowledge of First Nations, and the value of the land that their livelihoods rely on.

In sum, Canada has a lot to do when it comes to listening to, and working with, First Nations. "As a country, there has been a lot of lip service paid to consultation, but consultation doesn't

just mean asking the questions, it means actually listening and learning", says Rider. That's where Canada needs to improve, and where the Yukon and Protect the Peel movement is a lesson for the rest of Canada, as it has ensured that that conservation has to happen, and happen in a meaningful way. Canada's has a long way to go to reach its 2030 and 2050 targets (as well as those beyond), particularly in light of recent decisions to proceed with large-scale fossil fuel infrastructure that passes through the territories of objecting First Nations. Nonetheless, Protect the Peel serves as an excellent example of how Canada could achieve sustainable development through intersectional initiatives that center upon the rights, health and prosperity of First Nations.

"The legal case was the first time that First Nations and conservation groups appeared in front of the Supreme court on the same docket as co-litigants."

—Chris Rider,
Executive Director
of CPAWS Yukon

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CLEAN WATER AND SANITATION



TARGETS



Ensure availability and sustainable management of water and sanitation for all.

TARGET 6-1

SAFE AND AFFORDABLE DRINKING WATER

By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

TARGET 6-5

IMPLEMENT INTEGRATED WATER RESOURCES MANAGEMENT

By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.

TARGET 6-2

END OPEN DEFECTION AND PROVIDE ACCESS TO SANITATION AND HYGIENE

By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

TARGET 6-6

PROTECT AND RESTORE WATER-RELATED ECOSYSTEMS

By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.

TARGET 6-3

IMPROVE WATER QUALITY, WASTEWATER TREATMENT AND SAFE REUSE

By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

TARGET 6-A

EXPAND WATER AND SANITATION SUPPORT TO DEVELOPING COUNTRIES

By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.

TARGET 6-4

INCREASE WATER-USE EFFICIENCY AND ENSURE FRESHWATER SUPPLIES

By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

TARGET 6-B

SUPPORT LOCAL ENGAGEMENT IN WATER AND SANITATION MANAGEMENT

Support and strengthen the participation of local communities in improving water and sanitation management.

EXPERT CONTRIBUTORS

- **Zafar Adeel**, Executive Director, Pacific Water Research Centre, Simon Fraser University
- **Tony Maas**, Director of the Forum for Leadership on Water (FLOW) and Manager of Strategy with Freshwater Future
- **Oliver Brandes**, Director, POLIS Water Sustainability Project

CROSS-CUTTING THEMES



Indigenous Communities

The negative consequences of contaminated water or water shortages on Canada's First Nations communities cannot be overstated. The stress and difficulty of living without reliable access, or the anxiety of being forced to use contaminated water, affects all aspects of individual and community life – from education, to economic activities, to human health, and traditional and spiritual practices.



Gender

Gender is not explicitly considered in the Federal Sustainable Development Strategy and therefore gender issues when it comes to Water and any of the other SDGs are in danger of being overlooked. For example, pregnant and nursing women are particularly vulnerable to health problems from a lack of clean water in communities under boil advisories.



Climate Change

An increase in reach, frequency, and severity of floods and droughts are likely to affect all Canadians to some degree under climate change. Some consequences may include floods damaging homes and communities, droughts reducing agricultural and industrial output, and greater disaster relief and insurance costs for taxpayers and private landowners.

The warming of lakes and other freshwater ecosystems can completely alter their functioning through changes in water levels, algal blooms, and overall shifts in food webs, which can in turn threaten drinking water quality, as well as the recreational value of these bodies.



Youth

Children and young people are more vulnerable to the health consequences of contaminated water. There have been a few reports in the past two years of unsafe lead levels in drinking water in Ontario and BC schools and daycares.

NATIONAL DATA

- Canada has approximately 20% of the world's freshwater in the form of lakes, rivers streams, glaciers, and groundwater, however it has only 6.5% of the worlds annually *renewable* freshwater
- In total – 2.6% of the world's renewable fresh water is available to the 90% of Canadians living along the Canada-US border
- Canada "has the third largest renewable freshwater supply worldwide and the second largest amount per capita among developed countries, at 103,899 m³ per person."
- There are over 2 million lakes in Canada, 14% of world's total lakes exceeding 500 km² in area
- The majority of Canadians place a high value to water, and see fresh water as our most important natural resource. However, sustainable water management is not a top priority in the policy sphere and our water challenges persist, grow and multiply as a result – the myth of water abundance persists in Canada and we don't fully appreciate how important it is to our health, economy, agriculture, and environment

Introduction

Canada is a leader on clean water and sanitation relative to other nations. There are three areas in particular where Canada has performed well with respect to the targets under SDG 6: access to safe and affordable drinking water (Target 6.1), access to equitable sanitation (Target 6.2), and transboundary cooperation on water management (Indicator 6.5.2). All targets under SDG 6 see room for improvement in certain subnational cases.

Overall, the expert interviewees expressed that Canada is an example of a nation with an abundant supply of water that does not manage it particularly well. Thus far, shortcomings in our water management strategy have not caused widespread problems due to our abundance of available clean water and sprawling population. Moving forward, however, with increasing pressures from industry, population growth, climate change, aging infrastructure, and lack of robust water laws and standards – these shortcomings may prevail, leaving more communities behind in Canada.

Despite Canada's relatively universal access to clean water, there are still groups that are left behind: rural and Indigenous communities, and natural ecosystems. In the future, however, all Canadians may be at risk of restricted access to clean drinking water because we are not identifying and responding to emerging challenges. Floods and droughts due to climate change and contaminate water due to aging infrastructure and polluted watersheds may threaten the health, safety, and sustainable growth of all Canadian communities.

Dr. Zafar Adeel, Executive Director of the Pacific Water Research Centre at Simon Fraser University, outlines a series of accessibility challenges surrounding clean drinking water that are particularly serious in Canada.

Canada has approximately 20% of the world's freshwater in the form of lakes, rivers streams, glaciers, and groundwater, however it has only 6.5% of the worlds annually renewable freshwater.

Boil Advisories

Chronic boil advisories in remote communities affect approximately 1% of the population, but that 1% is truly being “left behind.” The government has committed to ending all long-term advisories by March 2021, however several observers are concerned that this deadline may not be met. The Parliamentary Budget Office estimates that the minimum funds required to meet the current and future needs of these communities affected by boil advisories is approximately \$3.2 billion.

As of the end of 2017, there were 67 boil advisories in Canada, 40 of which had been in place for over a decade. Neskantaga in Northern Ontario has been in a boil advisory for over 20 years due to a long-defunct water treatment plant. Consequently, each household lives on rationed bottled water which must be budgeted for cleaning, cooking and drinking. The repercussions of water scarcity may compound with other social and health struggles in the community: 50% of band members are addicted to prescription drugs and there is a suicide crisis in the community. Many young people move away for health reasons. The boil advisory crises in rural Indigenous communities are inexcusable, given that the technology and funds to rectify these situations are easily available. If the government is serious about beginning the path to Reconciliation, it will achieve its 2021 goal as soon as possible.

“As of the end of 2017, there were 67 boil advisories in Canada, 40 of which had been in place for over a decade.”

Aging Infrastructure for Drinking Water and Sewage Treatment

Most urban water infrastructure in Canada is 50-100 years old and will require replacements or upgrades in the near future in order to avoid serious public health crises. The Federation of Canadian Municipalities estimates at least \$18 billion is required just to bring urban wastewater systems up to standard. Already, there have been accounts of lead in drinking water in public schools in areas not so far from urban centres in British Columbia and Ontario. Carelessness surrounding the destination of sewage has also polluted our waterways, affecting the health of living aquatic resources and ultimately, of human communities. A recent norovirus outbreak in aquaculture oysters in central Bayes Sound near Vancouver Island has resulted in health problems, and the resulting closure of the BC shellfish fishery has stressed small businesses in particular.

Threats to Aquatic Ecosystem Health and Implications for Human Water Use

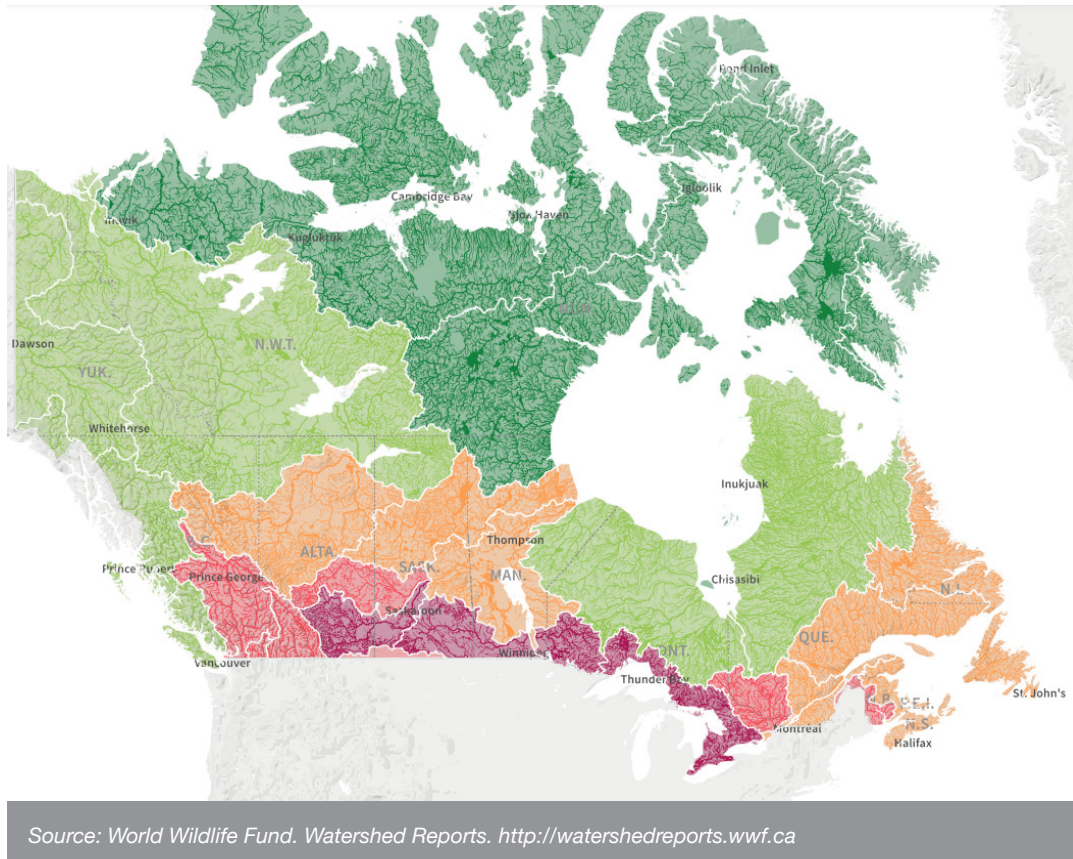
World Wildlife Fund Canada released a watershed health report using seven indicators- pollution, habitat loss, fragmentation, water use, invasive species, alteration of flows and climate change – to assess watershed-mediated threats to aquatic biodiversity and drinking water. Two key findings were that data on these indicators are lacking, and that where data are available, it appears that watersheds are suffering from several anthropogenic stressors:

- 110 of 167 sub-watersheds were data deficient;
- 53 of 167 are stressed (especially those in southern Canada);
- 60 of 167 show pollution is a serious concern;
- 21 of 167 are experiencing high impacts from climate change

Pollution in watersheds in particular can adversely affect natural ecosystems and human communities alike. With increased development activities meeting the needs of a growing population, watersheds will become more susceptible to pollutants such as toxins and carcinogens from pesticides and herbicides, industrial pollution from mining and fossil fuel extraction, plastics & microplastics, nutrient overload from agricultural fertilizers and sewage, dams and methyl-mercury.

The interviewees expressed concern that the government is not placing enough emphasis on the watershed as a unit of conservation as insurance for future water use. While Canada's 2020 commitment to 17% protected terrestrial and inland freshwater areas is commendable and will contribute to watershed

health, we must explicitly consider protecting an adequate number of wetlands and aquifers from paving and irrigation to avoid drought or flooding, and in so doing protect potentially invaluable groundwater sources under future climate change.



“It is impossible to have healthy, functioning communities without clean water.”

—Oliver Brandes, Co-Director of the POLIS Project on Ecological Governance at the University of Victoria’s Centre for Global Studies

WATER AND AGENDA 2030

Of the goals under review at the High-Level Political Forum this year, SDG 6 intersects most of the 2030 Agenda and a failure to meet the targets would have major implications for meeting the other goals. As Oliver Brandes, Co-Director of the POLIS Project on Ecological Governance at the University of Victoria's Centre for Global Studies, points out, "it is impossible to have healthy, functioning communities without clean water." Meeting SDG 6 can have implications on meeting the targets of other SDGs in Canada in the following ways:

SDG 1: No Poverty – Poor access to clean water can act in a vicious cycle with poverty. Impoverished communities tend to have poor sanitation infrastructure due to lack of funds for water treatment and sanitation facilities. They also tend to be situated closer to industrial activities and water stressed areas (polluted water, outdated water treatment and sanitation). Poor communities are therefore less able to adapt to climate change impacts on water or upgrade their treatment systems. Poverty and water interactions are chronic issues in many First Nations communities – 400 of 618 First Nations communities had some kind of water problem between 2004 and 2014 according to a CBC investigation.

SDG 3: Good health and well-being – Clean water for drinking, cooking, and personal hygiene is crucial for good health. Without robust source protection, sufficient treatment, and well-maintained lead-free infrastructure, Canadians could consume water contaminated with bio-toxins, pathogens, pharmaceuticals, plastics, lead, and industrial chemicals. Water rations or contamination of the supply can cause psychological stress. Lack of reliable clean water supplies is a key factor affecting the health of people in many First Nations communities and youth and pregnant women are especially vulnerable to contaminated water. According to the *Globe & Mail* – 57,000 people in 101 First Nations communities are faced with high health risks from their drinking water supply.

SDG 4: Quality Education – Clean water is linked to education in two important ways. First, successful learning outcomes depend on proper nutrition and reliable access to clean, lead-free water. Exposure to water-

borne toxins such as lead in childhood can cause life-long learning and behavioral problems. Second, education is an important tool for promoting water quality values, and equip current and future generations with the proper skills and knowledge to maintain water infrastructure and conserve watersheds.

SDG 5: Gender equality – Target 5.2 articulates the need to pay “special attention to the needs of women and girls and those in vulnerable situations” – however gender is not discussed in the indicators under SDG 6, nor is it considered in Canada’s Federal Sustainable Development Strategy. As a result, women and girls could be at risk of being left behind. For example, pregnant and nursing women are at higher risk of health complications due to poor drinking water.

SDG 7: Affordable and Clean Energy – the bidirectional relationship between water and energy is described by Policy Horizons Canada as the “Water-Energy Nexus”. Wise water management is critical to providing sustainable access to Canadian communities in the coming decades, and access to renewable energy is necessary to provide treatment and sanitation services for water. A concrete example of the water-energy nexus is hydroelectricity, which accounts for approximately 60% of the energy produced in Canada. Though it is considered to be a renewable energy source, hydro still has some negative consequences. Hydroelectric dams by their very nature stop the flow of water, which can drastically alter ecosystems (ie. by blocking fish migration pathways). The trapping of organic sediments in dams also results in high emissions of methane, which is a stronger greenhouse gas than carbon dioxide.

The large volumes of water required by other energy and resource sectors act as a double stressor- excessive amounts of water are diverted from their natural sources and from other uses such as drinking, *and* this water often contains accumulated pollutants and re-enters watersheds, posing health risks to humans and natural ecosystems. For example, high quantities of water are used to extract fossil fuels through hydraulic fracturing, steam-assisted gravity drainage extraction of bitumen from the oil sands, and processing and upgrading the oil sands. The production of fossil fuels generates large volumes of contaminated water which are stored in tailings dams or in the case of fracking, injected back into the ground. Open-pit mining of metals also make nearby waterways vulnerable to contamination with heavy metals.

SDG 14 and 15: Life on Land and Life Under Water - Development activities heavily impact flora and fauna in freshwater ecosystems. Eutrophication- or excessive nutrients such as nitrates and phosphates from agricultural fertilizers infiltrating waterways- causes uncontrolled algal blooms in lakes and other wetlands. These blooms can have negative implications for the human use of lakes; along with preventing the recreational use of these water bodies, many species of algae can be toxic to humans and animals, resulting in fisheries closures and possibly health risks if these water bodies are linked to drinking sources.

RECOMMENDATIONS

- Mobilize assets as soon as possible to permanently end all boil advisories in rural communities.
- Explicitly designate the watershed as a unit of conservation, and consider aquatic ecosystems that are connected to drinking water sources as warranting protection under Canada's Biodiversity Target 1.
- Canada lacks a national water strategy that will be resilient to emerging threats such as climate change and ageing infrastructure. Experts across the country recommend the drafting of a Pan-Canadian framework on water that outlines rigorous standards for water quality, access and waste treatment.

CASE STUDY: PARTNERSHIPS FOR ADDRESSING CHALLENGES IN THE GREAT LAKES BASIN

Background

Lake Erie, Lake Huron, Lake Michigan, Lake Ontario, and Lake Superior – collectively known as the ‘Great Lakes’ of North America – cover 244,106 km² and contain 22,671 km³ of water, which equals 84% of North America’s surface fresh water and nearly 20% of the world’s surface fresh water. The Great Lakes drainage basin is home to 30% of Canada’s population and 10% of America’s, totaling around 32 million people. The basin supports close to 25% of Canada’s agricultural production, and billions of dollars’ worth of economic activity such as manufacturing, shipping, fishing, mining and tourism occur in the region.

Finally, the lakes are the direct source of drinking water for 10 million Canadians. Despite their iconic status, however, there is a myth of abundance in the region that ought to be shattered; 1% of the water is renewed annually.

Every potential challenge that water sources face- pollution, improper sewage treatment, invasive species, overfishing, heightened water level fluctuations and effective transboundary management- applies in the Great Lakes. In spite of this, many water management success stories have arisen from the region. Networks and partnerships of individuals, organizations, universities, communities, and all levels of government in Canada and the United States have been a critical tool for tackling the multiple challenges faced in the Great Lakes Basin. The overall takeaway message from the case study in the Great Lakes is that cooperation and collaboration among diverse actors and stakeholders can yield positive results for sustainable development.



Canada's Great Lakes. Image was taken by the Expedition 31 crew from the International Space Station, June 14, 2012 (<https://earthobservatory.nasa.gov/IOTD/view.php?id=78617>)

Challenges and Solutions

Invasive Species

Invasive species are flora and fauna that are inadvertently introduced to waterways that can alter the health of ecosystems and threaten the survival of native species, with potential negative impacts on local economy, recreation, and culture. Initiatives from the Great Lakes region have demonstrated leadership mitigating the threat of invasive species. Since the discovery of invasive zebra mussels in Lake St Clair, there have been concerted efforts to reduce their spread by implementing ballast water management tests on foreign ships coming into the St. Lawrence seaway. This was the first initiative of its kind globally when it was implemented in 1989. Another well-known invasive species control success story is of the sea lamprey- a

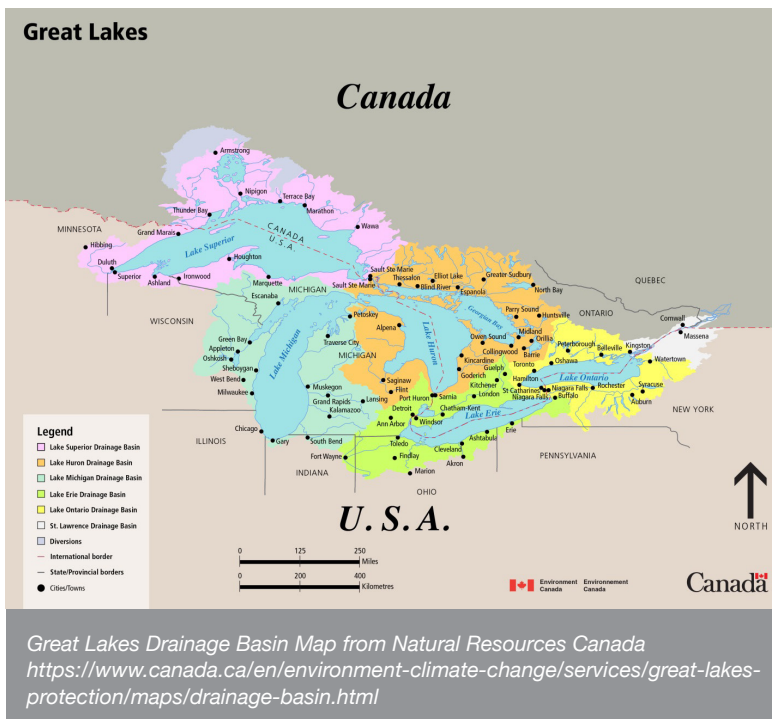
parasitic fish that is considered a pest in the Great Lakes region. The lamprey- which typically causes mortality in its hosts to due excessive fluid loss and infection- threatened several species of commercial and cultural importance such as lake trout, whitefish, and chub. A joint US-Canada initiative- the Great Lakes Fishery Commission- has successfully reduced the sea lamprey population by about 90% through a variety of physical and chemical techniques recommended by researchers from both sides of the border.

Innovation

There are multiple examples of technological innovation for water management and treatment in the Great Lakes. Trojan UV treatment, developed in London Ontario, is a small-scale water disinfection system that poses a safer alternative to chemical water treatment. While water treatment can be a very energy-intensive process, innovative thinkers from the Great Lakes region (in particular, the University of Guelph and the McMaster University) are investigating the feasibility of harnessing energy from the sewage treatment process to render it energy-neutral. Dr. Adeel notes that more effort could be allocated to scaling up innovations from the region to provide solutions to anticipated challenges in water management.

Transboundary governance and collaboration

Experts note that the Great Lakes has seen several novel transboundary agreements for water governance, largely owing to the fact that Canada and US share the largest de-militarized border in the world upon which several of the Great Lakes span. The Great Lakes Water Quality Agreement was originally signed between Canada and the United States in 1972, with a mandate to “restore and maintain the chemical, physical, and biological integrity of the Waters of the Great Lakes”. It has since been amended to articulate specific objectives pertaining to water quality and ecosystem health, such as preventing nutrients causing algal and cyanobacterial blooms, eliminating the contamination of groundwater, and developing climate models to better predict climate change impacts in the Great Lakes region. The International Joint Commission (IJC) is the key administrative body of the Act. It regulates shared water uses such as hydroelectric power generation, drinking water, fishing, and commercial shipping, and also proposes solutions on specific disputes over the use of these waters.



“Every potential challenge that water sources face- pollution, improper sewage treatment, invasive species, overfishing, heightened water level fluctuations and effective transboundary management- applies in the Great Lakes.”

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AFFORDABLE AND CLEAN ENERGY



TARGETS

7 AFFORDABLE AND CLEAN ENERGY



Ensure access to affordable, reliable, sustainable and modern energy for all.

TARGET 7-1



UNIVERSAL ACCESS TO MODERN ENERGY

By 2030, ensure universal access to affordable, reliable and modern energy services

TARGET 7-B



EXPAND AND UPGRADE ENERGY SERVICES FOR DEVELOPING COUNTRIES

By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programmes of support

TARGET 7-2



INCREASE GLOBAL PERCENTAGE OF RENEWABLE ENERGY

By 2030, increase substantially the share of renewable energy in the global energy mix

TARGET 7-3



DOUBLE THE IMPROVEMENT IN ENERGY EFFICIENCY

By 2030, double the global rate of improvement in energy efficiency

TARGET 7-A



PROMOTE ACCESS TO RESEARCH, TECHNOLOGY AND INVESTMENTS IN CLEAN ENERGY

By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

There are 311 renewable energy projects in various stages of development in 194 Indigenous communities across Canada. British Columbia, with its own provincial clean energy fund for Indigenous communities has by far the most developments with approximately 153 at last count. Ontario, Canada's most populous province, falls a distant second at 82" OR "British Columbia is home to the largest share of Canadian Indigenous clean energy projects with 52%, followed by Ontario at 24% and Quebec at 10%. The remaining 14% is spread between Canada's 10 other Provinces and Territories.

EXPERT CONTRIBUTORS

- **Jatin Nathwani**, Professor, University of Waterloo; Founder & Executive Director, Waterloo Institute for Sustainable Energy; Ontario Research Chair in Public Policy for Sustainable Energy.
- **Julie Wright**, General Manager, Waterloo Global Science Initiative.
- **Chris Henderson**, Founder & President, Lumos Energy.
- **Kim Scott**, CEO, AKI Resources; Co-Chair, Indigenous Clean Energy Advisory Council.

CROSS-CUTTING THEMES



Indigenous Communities

Throughout history, Indigenous territories have been exploited for resource extraction, leaving local communities and Indigenous peoples to bear the consequences of mega-projects that pollute soil and waterways, and displace local wildlife. To scale clean energy in a way that aligns with the framework of the SDGs, Indigenous Peoples must be central partners in Canada’s energy policies and investments.



Gender

Women play a key role in accelerating not only Canada’s, but the world’s clean energy future. Gender equality is closely tied to both access to, and the provision of, energy. Women in entrepreneurship, finance, and policy have led the transition to date, and must be empowered both domestically and abroad with comprehensive social and economic resources to achieve the energy solutions we desire.



Climate Change

There is perhaps no issue more closely tied to climate change than energy. As a top per-capita consumer of energy and the country possessing the world’s third-largest oil reserves, Canada has a key role to play in exhibiting leadership on the transition away from fossil fuels and towards a clean energy future.



Youth

Youth are and will be disproportionately affected by the outcomes of today’s energy decisions. Inter-generational equity is of the utmost importance in the development of both energy policy and the reorganization of energy markets. Moreover, as Millennials and Generation Z will be recipients of the largest transfer of wealth in human history, they are well positioned to make significant investments to spur the growth of the clean energy industry.

NATIONAL DATA

- Canada provides some data through its SDG Data Hub to demonstrate its progress towards SDG 7 targets. Three indicators currently have accompanying data: 7.1.1, 7.2.1 and 7.3.1. The rest remain in development as Statistics Canada searches for the best source of data.
- For 7.1.1 (Proportion of population with access to electricity), consumption was measured at 92.5 gigajoules per capita in 2015, down from 97.5 in 2013;
- 7.2.1 (Renewable energy share in the total final energy consumption) showed 18.9% in 2015, a slight drop from 2014's figure of 19.1%;
- And 7.3.1 (Energy intensity measured in terms of primary energy and GDP), measured in Terajoules per million dollars of real GDP, also fell, totalling 5.37 in 2015 and 5.44 in 2014.

Introduction

Reliable and affordable energy is the founding pillar of modern industrialized civilization. It has enabled countries across the world to transform their economies, lifting hundreds of millions out of poverty and enabling the largest wave of economic growth in history. However, this progress was made at the expense of globe's environmental health, deteriorating the world's waterways, soil, biodiversity, and more. To address climate change and sustainable development, it is critical that we scale up hydro, solar, wind, biomass, community energy planning, geothermal, and transmission projects at an accelerated rate, with every policy, investment and community-based tool available.

This section will examine Canada's progress, shortcomings, and areas for improvement in relation to SDG 7, Clean and Affordable Energy, with emphasis on its intersections with climate change and Indigenous communities, from the perspective of energy experts across the country. As it stands in relation to other nations across the globe, Canada has a ways to go before it can call itself a leader in renewable energy.

Getting to 100% Clean Energy

Getting Canada to 100% renewable energy is a multifaceted and intergenerational challenge. Because of the scale and differentiation of Canada's energy system and its multigenerational impacts, 2030 is a cursory timeline to make evaluations on the long-term transition ahead. In reference to this issue, Julie Wright, General Manager of the Waterloo Global Science Initiative, notes:

"It is more practical to look at a 60 or 70 year energy transition... [yet,] from the benchmarking that has been done to-date on Canada's submissions, we're not moving fast enough to meet our 2030 goals, let alone our 2050 goals; and the fact that we're not on track to meet our 2050 goals is far more alarming than the 2030 issue because that means we're going to be seriously lagging in terms of [a] full system transition".

Canada has yet to effectively examine all aspects of a national energy ecosystem and how it needs to move forward. Looking at the status of Canada's transition, 2030 represents an important milestone, and "there are initiatives that should be well underway at this point that we're clearly moving backwards on, and in cases where we need absolute complete breakthroughs", adds Wright.

Furthermore, with an abundance of energy supply across Canada, relatively little has been done to advance the efficiency of the energy being generated. For instance, Quebec and British Columbia have an abundance of renewable hydroelectricity, and other provinces such as Ontario have eclectic energy generation portfolios. However, these provinces remain tied to legacy infrastructure, including large-scale hydro dams and generation plants, which make it difficult to diversify as capital costs keep governments tied to that existing infrastructure. Canada is doing well province-to-province, relative to global progress. However, as this comes largely from an advantage of easy access to these resources, Canada should be doing much more to leverage its expertise and build capacity, as it has the potential to demonstrate policy leadership across not just the provinces but internationally as well.

“[The transition requires] a full spectrum policy suite that incentivizes, supports and regulates a market towards clean energy” says Kim Scott, Chief Executive Officer of AKI Resources and Member of Kitigan Zibi First Nation . There remains a gap in the existing regulations of energy markets in Canada; they have yet to be in line with our climate agenda. A majority of policy leadership that is occurring, adds Scott, “is happening at a sub-national level”. British Columbia’s carbon tax, Ontario’s cap-and-trade program and its green energy and economy act, and policies of a similar nature are examples that should be scaled nationally. While the Pan-Canadian Framework on Clean Growth & Climate Change mandates a carbon price nationally, there are additional favorable initiatives, programs and policies that need to be scaled for renewable energy technology and the distributed production of power to grow so that homeowners, mini grids and a fringe of microgrid solutions can be accommodated, as not all emissions are covered by carbon pricing. Chris Henderson, President of Lumos Energy, adds:

“If we try to think top-down, we’re going to fail. We don’t need to perpetuate the whole structure we have in the current energy market with large, dominating companies... we want to make sure that local leadership, because of distributed generation where people are energy consumers and producers at the same time, plays in that space”.

Moreover, the involvement of Indigenous communities is of critical importance in this context. To follow an SDG-guided policy framework that is truly impactful, Indigenous involvement and consultation must occur at every level, particularly locally.

“Our own Indigenous communities...are electricity constrained,”

—Jatin Nathwani, founding director of the Waterloo Institute for Sustainable Energy

Indigenous Participation

Indigenous leadership is inexorable in the development and scaling of renewable energy initiatives across Canada. Not only is the inclusion and empowerment of Indigenous communities critical to true and equitable reconciliation, but it is also critical to building the localized, decentralized, resilient systems of energy our future depends on. “We cannot get to 100% renewable energy [in Canada] without having local leadership and local participation in energy democracy, and that includes municipalities, rural communities and Indigenous communities” says Chris Henderson. Currently, one-fifth of all Canada’s electricity generation capacity is either owned, co-owned or has a defined benefit agreement with fiscal payments to Indigenous communities. Funding plans by First Nations, non-profits, advisory firms, and federal and provincial governments are integrating Indigenous Peoples into decision-making and assisting communities with both the financial and personal capacity to have control over the projects in their territories.

“A review of the sources cited previously in 2015 resulted in the identification of approximately 311 renewable energy projects in various stages of development in 194 Indigenous communities across Canada... British Columbia, with its own provincial clean energy fund for Indigenous communities has, not surprisingly, by far the most developments with approximately 153 at last count. Ontario, Canada’s most populous province, falls a distant second at 82” (Lowan 2017).

In *Indigenous Clean Energy’s* report “Powering Reconciliation”, they identified the respective regional shares of Indigenous-led projects across Canada. British Columbia is home to the largest share of Canadian Indigenous clean energy projects with 52%, followed by Ontario at 24% and Quebec at 10%. The remaining 14% is spread between Canada’s 10 other Provinces and Territories.

While there are a number of examples of developments across the country and policies working to accelerate the participation and capacity of First Nations to adopt clean energy projects or standards in their communities, a few are outlined here:

Existing / Previous Examples

Vancouver Island - The Tla-o-qui-aht First Nation, located in Clayoquot Sound, near Tofino, followed their traditional principles of focusing on long-term sustainability over short-term profit by building two renewable energy projects through partnership programs and a third on their own, including a 75% ownership of the Canoe Creek run-of-river hydro project, emphasizing the potential for capacity building and Indigenous self-determination. In a 2017 interview, Tla-o-qui-aht Natural Resources Manager, Saya Masso, remarked: “This economic engine we’re creating in green energy will help us get other projects, like language revitalization, totem pole restoration and cultural activities off the ground”. The scaling of these projects is critical, as they offer First Nations communities economic, social and environmental benefits in unison.

Similarly, the Hupacasath First Nation built a 6.5 MW run-of-the-river hydro project at China Creek, electrifying the equivalent of 6,000 homes in Port Alberni.

BC - First Nations Clean Energy Business Fund (FNCEBF) is a policy example developed from the provincial government in coordination with First Nations communities, which aimed to promote increased Indigenous community participation in the clean energy sector within their asserted traditional territories and treaty areas. The First Nations Energy Efficiency Building Policy Program is another policy which, delivered from 2011 - 2016, supported energy efficiency in First Nations housing through funding innovation, policy support, and community training / awareness measures.

Canada - The Federal Sustainable Development Strategy (FSDS) works with territorial governments, Indigenous organizations and communities, and oth-

er federal departments to develop a plan and timeline for deploying innovative renewable energy and efficiency alternatives to diesel. It provides direct funding support to northern communities, governments, and organizations (eg. Northern Responsible Energy Approach for Community Heating and Electricity program) to plan and construct renewable energy and energy efficiency projects that reduce diesel use for electricity and heating.

Just Transition

Just transition is a critical component of the movement to a low-carbon economy. Particularly in Canada, where the total estimated upstream jobs in the oil and gas sector have been estimated to be as high as 533,000. In 2016, at the 23rd Conference of Parties (COP 23), Canada announced that, in partnership with the United Kingdom, it would be leading the

Powering Past Coal Alliance to accelerate the phase-out of coal-fired electricity generation across the world. While many major consumers of coal remain non-members, as of April 2018, the alliance includes over 60 national and sub-national actors, and has had the support of businesses and non-profit organizations alike. To address the vast employment displacement of coal workers, the govern-

ment announced a Just Transition taskforce in 2018, which has been commissioned to provide recommendations on how to make the transition in a low-cost, equitable manner.

Nonetheless, a gap remains between the needs of oil and gas workers and what is currently available to support them. Just transition is deeply connected to Indigenous communities, says Henderson, “as 10,000 people were employed in Fort McMurray First Nations’ companies, in the oil and gas sector.” He adds that as of today, that number has fallen to

“We’re not moving fast enough to meet our 2030 goals, let alone our 2050 goals; and...that means we’re going to be seriously lagging in terms of [a] full system transition.”

*—Julie Wright,
General Manager of the Waterloo
Global Science Initiative*

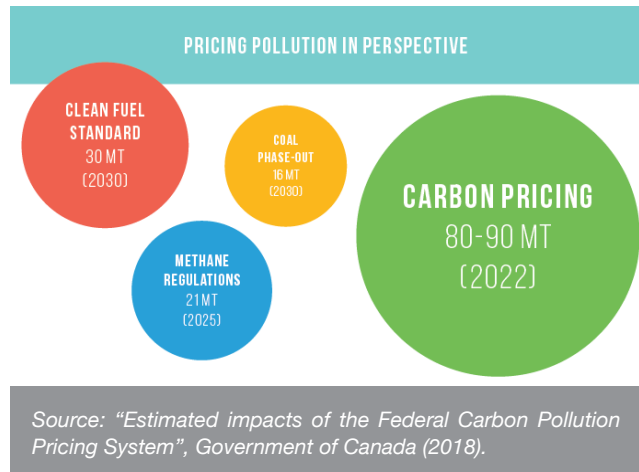
4,000. Indigenous clean energy is part of the solution, but not necessarily the whole picture as it creates a majority of jobs in construction rather than operations. As the transition is undertaken, better jobs in the industry will be in IT systems, smart grids and energy efficiency monitoring, which is why including energy and conservation, advanced energy systems and green infrastructure in the consideration of varied development paths is crucial. The clean energy sector cannot make up for all the displacement from the hydrocarbon sector, but it can play an important role. A robust national transition program and multi-sector retraining will be required for all the employment losses to be offset.

Furthermore, in resource-dependent economies like Alberta, providing an economic floor for workers to make the transition could be an important tool moving forward, says Julie Wright. Economic growth and secure jobs go hand-in-hand with the development of a clean energy economy; however, with Canada aiming to follow a carbon budget which expires in 2050, investment in the transition of workers and their livelihoods must occur at a far higher rate. Existing energy companies are looking to transition and diversify energy generation, and there is tremendous technical capacity in both Saskatchewan and Alberta to do so. It is critical that both the public and private sector think actively about where that capacity be redirected and a reasonable timeframe may be. “I think part of the problem is that we’re looking in 4-year cycles instead of looking at a full 30 years from now, looking more at the 2050+ lens, because you really want to set up those provinces for success in the transition”, adds Wright. “[As it stands], Canada as a whole is not doing a good enough job of thinking about how embedded the service economy is in the oil and gas sector.” Unskilled labour, specifically energy sector skill-sets and the construction trades, represent a large portion of the service industry that is dependent on the Oil and Gas sector. Canada needs to ensure that its rural economies in particular are diversified sufficiently to mitigate the impacts of the industry’s phase-out. This transition is closely tied to other SDGs beyond just goal 7, due to the need for decent work (SDG 8) and the persisting urban / rural divide across the country, particularly pronounced in the prairie provinces (SDG 10); which “provides a fodder ground for very divisive dialogue.” The importance of inclusion cannot be underscored. It is vital that more national-scope

solutions and innovations arise from rural economies, and that we support and invest in rural economies for their priorities to be heard in order to build a just transition plan that fits into the SDG framework.

Gaps in Public Policy

Comprehensive and ambitious energy policy is critical to the achievement of the SDGs. Canada has taken existing steps towards developing stronger clean energy policies, but there still remains a significant gap between what is needed and what has been pledged, according to experts.

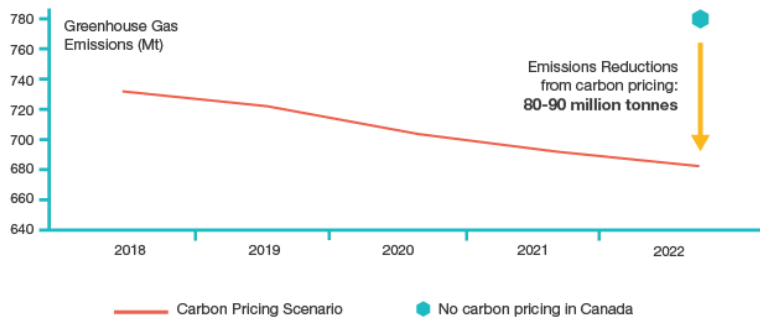


Carbon Pricing

Carbon Pricing is a key policy in the path towards implementing clean and affordable energy for all. By pricing GHG emissions according to their true cost and thereby internalizing the market externalities they generate, governments can correct market failures and provide the clean energy sector with the competitive edge it deserves.¹ Canada is part of the *Carbon Pricing Leadership Coalition*, a group of national and sub-national actors working to advance carbon pricing across the world and interweave carbon trading and taxation policies within the global economy. In its recent report, “[The] Estimated Impacts of the Federal Carbon Pollution Pricing System”, the government of Canada also used a gender-based + (also known as

¹ It should be noted that at the time of writing this report, Ontario premier-designate Doug Ford has announced his intention to end his province’s cap-and-trade policy. The government of Canada will respond by implementing a provincial pricing system and returning all revenues to Ontario.

PROJECTED GREENHOUSE GAS EMISSIONS IN CANADA WITH AND WITHOUT CARBON PRICING



Source: “Estimated impacts of the Federal Carbon Pollution Pricing System”, Government of Canada (2018).

intersectional) lens in its analysis, outlining diversity implications of carbon pricing. Findings on the outcomes of an output-based system included: lower risks of carbon leakage benefiting men more than women, due to the gender composition of energy-intensive industries; low-income households’ cost changes being contingent on facility-level decisions; and the impacts on low-income, as well as Indigenous communities (particularly fly-in communities), being highly dependent on how carbon pricing revenues are recycled, which is the choice of respective provincial and territorial governments, whether that be through direct rebates, incentives, public infrastructure or otherwise.

Outside of government, *Canada’s Ecofiscal Commission*, a group of Canadian economists informing the public and private sectors on the benefits of carbon pricing, have outlined in numerous reports and research papers why carbon pricing is critical to minimizing the cost of a clean energy transition. Their findings include recommendations such as increasing the stringency of prices over time to drive greater emissions reductions, communicating the details and implications of carbon pricing policies to everyday Canadians, and monitoring the isolated progress of the policies over the medium and long term.

All experts interviewed agree Canada is not on track to reach the social cost of carbon or methane for existing industry to be displaced in a time frame that aligns with our emissions reduction targets, as our price schedules both nationally and provincially remain modest. Nonetheless, carbon pricing programs such as cap-and-trade or carbon taxation programs are critical to achieving the clean energy acceleration we require. Namely, a steady and consistent rise in the price of carbon is of the utmost importance, as it sends a reliable signal to business interests on how the value of GHGs will change over time. A combination of the policy apparatuses of the electricity market and the electrification of energy, along with carbon pricing, will make the necessary economic impact to shift investment towards clean energy sources.

“A majority of policy leadership that is occurring is happening at a sub-national level” —Chief Executive Officer of AKI Resources and Member of Kitigan Zibi First Nation

Public Investments

Public investments are exceedingly important to give signals to the private sector and provide leverage. Despite this importance, Canada still has a large gap between the supply and need for public investment. Wright notes: “we’re not invested in innovation in our electricity systems. We’re invested in reliability and legacy infrastructure.” This is a significant mistake which could be consequential for the scalability of Canada’s clean energy economy. “Once [a large wave of] electric cars come on the road, you need the capacity”, she adds. A legacy of policy decisions has been largely responsible for poor allocations of investments. Nonetheless, there has been some progress. Reductions in the use of diesel fuel in Canada’s North could likely not be achieved without the Federal government’s fiscal stimulus accelerating the transition. “Other forms of public policy are even more important”, notes Henderson, “particularly at the Provincial and Territorial level”. There are 155 small, medium and large-scale clean energy projects with Indigenous participation across the country because provinces like Ontario and BC paved the way for procurement mechanisms that give preferences to First Nations participation. Without discounting the importance of fiscal investments, Henderson states that the right kind of economic and procurement signals at the policy level are the number one priority. “Fiscal support without policy reform would be ineffective.”

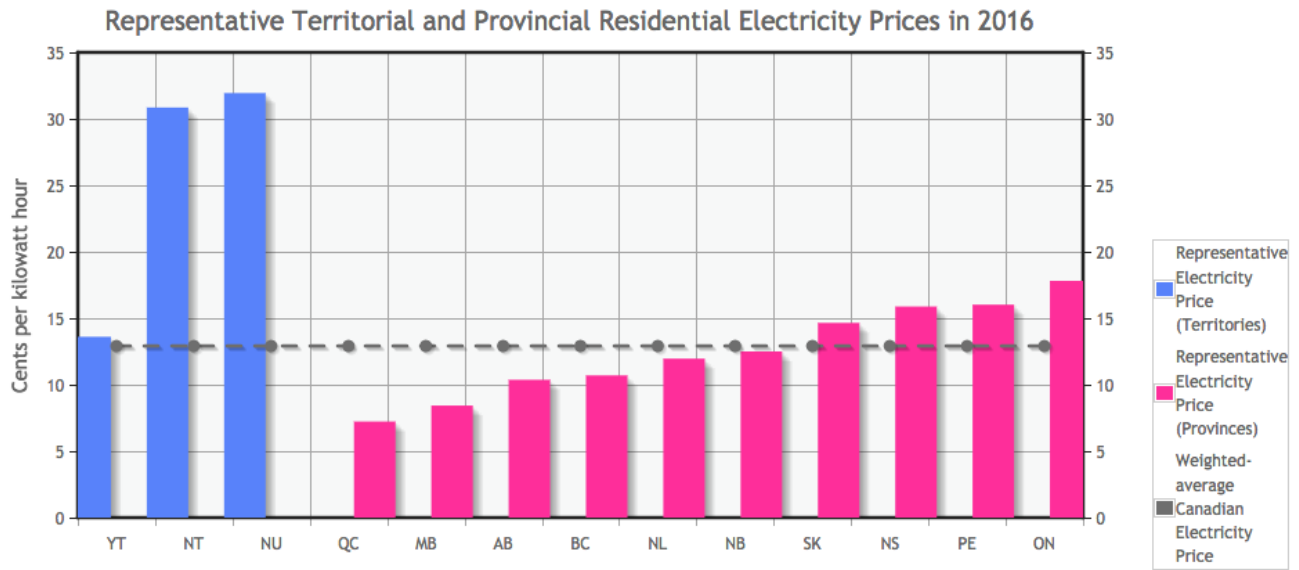
Innovation & Leading Up to 2030 and the 2050 Targets

In terms of global agreements and Canada’s pledges on the international stage, Canada is not currently doing enough to achieve its targets, says Henderson. Canada has major pressure points including significant oil and gas emissions and complementing growth in the heavy oil sector that is obstructing progress. It is essential that Canada counters that growth while making improvements towards our clean energy aspirations. In renewable energy, we have come far, but the present opportunities lie in the electrification of transportation, heating and cooling. The key question is ‘how will Canada work harder to use these developing sources of clean electricity to replace existing oil and gas-based infrastructure for heating and transport?’

Rural & Northern Support

Rural and Northern communities in Canada face asymmetric barriers to clean energy development and affordability. “We’re not looking at energy through the right kind of lens... we’ve come to a point where we’re so used to the reliability of it, especially in our more southern geographic, population-dense range of Canada” says Wright. As a result, energy policy in Canada is almost entirely focused through an urban, southern lens.

Furthermore, Canada has made limited progress in interpreting how its energy distribution intersects with housing stock, housing affordability and a host of other issues. “We don’t think about our 279 remote communities that completely rely on diesel, and we’re not thinking about the entire package, from generation of energy to management of energy through to the efficiency and conservation of energy”, adds Wright. There remain significant issues surrounding evaluating the impacts of diesel generator reliance in the North. “Off-grid access is a global problem, in terms of the third of humanity that has no electricity access or reasonable quality of energy services. This is mainly a problem of Sub-Saharan Africa, Latin America somewhat, and parts of Asia; but we have that same problem in a slightly different disguise within our own Indigenous communities, they are electricity constrained,” notes Jatin Nathwani, founding director of the Waterloo Institute for Sustainable Energy. The issue is an exhibition of energy poverty in Northern communities and the load restrictions they face. The full cost of diesel is still unaccounted for. “If you’re a constrained community with respect to energy services (constrained meaning the population of the community is growing), your ability to build businesses and grow economic opportunity is somewhat limited without energy access,” Nathwani adds. The market cost is available, but doesn’t demonstrate the scale of diesel contamination in the North when evaluating energy alternatives, or the opportunity cost of better energy alternatives. The Federal Government of Canada has yet to provide an inventory of sites with reliable information on diesel contamination, without which it is virtually impossible to determine a social cost. In terms of the scale of generating new electricity sources for communities that are non-diesel, which can be in the hundreds of millions, evaluating the perspective of legacy infrastructure is critical. From a policy perspective, these decisions must be made in a holistic way.



Source: National Energy Board (2016).

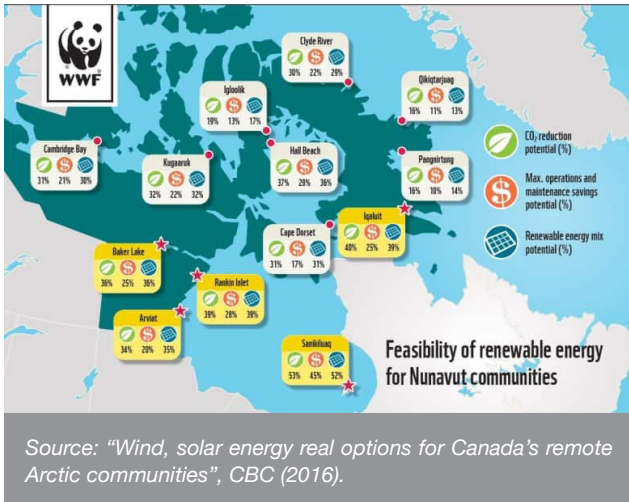
Over 250 communities in the North rely on diesel for heat and power generation. For example, in a remote community in Canada’s North, there would be exorbitant costs to set up a micro grid. Those types of rural projects must be subsidized to get communities off of diesel in a way that’s appropriate for the context. Expertise needs to be shipped in, if there is limited capacity locally, and all the relevant feasibility and pre-feasibility costing measures need to be recognized and planned for. In the 2016 Federal budget, the government made a \$10.7 million commitment over two years to reduce Northern community dependency on diesel fuels. However, Henderson remarks that this would not have likely been possible without the important push from *Indigenous Clean Energy*, which is a key partner in building capacity for Indigenous communities across Canada to reach renewable energy objectives, working with 5-10 Northern communities a day on different projects. While it is an important issue, Henderson notes, “Diesel emissions are 0.3% of Canadian emissions”, and emphasizes that the issue is more a livelihood and health issue than a significant contributor to climate change.

“We cannot get to 100% renewable energy [in Canada] without having local leadership and local participation in energy democracy.”

*—Chris Henderson,
President of Lumos Energy*

Decentralization

Moving Indigenous and rural communities to a clean combination of either bio-energy, hydro, solar, wind and/or geothermal energy, is the basis of rebooting their energy systems so that there are no constraints to capacity, the transportation expenses associated with diesel fuel are eliminated, and energy systems are easier to maintain and manage.



For remote communities, “with most of the projects that come online, they are subsistent projects (the outcome of diesel generator approaches)... so it’s constantly band-aiding issues over decades.” states Wright. A change in the energy paradigm by diversifying energy sources is a step in the right direction towards self-sufficiency and resiliency. Nonetheless, completely decarbonizing all Northern rural communities immediately, for the sake of resiliency, is not necessarily the optimal option as many need to have some sort of backup generation capacity. However, this provides opportunities to create the conditions for growth in those communities. For example, Wright adds that recognizing and investing in the capacity within those communities to manage projects is key. For example, ensuring there is support over successive council generations is important to the continuity of productive project management.

Distributed energy generation remains a small factor in the role of clean energy generation across Canada, we should be cautious to overplay distributed generation, says Henderson. He notes that it will likely take at least another 10 years before it makes a more significant impact on the domestic market. Baseload generation is still critically important and Indigenous communities are playing an even larger role than municipalities, as the number of Indigenous coalitions for project developments vastly outnumbers that of municipalities in the clean energy sector. Larger scale renewables are important currently and will be into the future, and distributed generation capacity will have a role to play in the future as well, however it is part of the transition process, Henderson emphasizes. In the meantime, investments in smart and local grids allow distributed generation to be more pertinent. As it stands, Canada simply does not have the existing infrastructure in these sectors to support localized electric vehicles. Investments in smart grids take time, and when appropriately scaled, they will be important; but so will large-scale renewable baseload electricity.

AFFORDABLE & RENEWABLE ENERGY AND AGENDA 2030

It is essential to have a holistic view of the ways in which clean energy intersects with the SDGs. There is a fundamental difference in the way in which Indigenous and non-Indigenous communities intersect with the clean energy economy. “Because Indigenous communities are place-based and dealing with traditional territory, other issues within the SDG framework are equally as important to them as having an impact on clean energy and climate,” says Henderson. This includes *Climate Action* (Goal 13), because they are disproportionately affected by its effects being on coastal and vulnerable regions; includes the issues of *Life Below Water* (Goal 14) and *Life on Land* (Goal 15) as they are essential to their traditional livelihoods; and it includes *Partnerships for the Goals* (Goal 17),

without which the SDGs could not be successful. All the clean energy projects done with Indigenous involvement include partnerships, whether that is with a public or private company. If the prime impact is looking at affordable and clean energy, then there is a secondary impact which includes Climate Action; Innovation, Industry and infrastructure; Sustainable Cities and Communities; as well as Partnerships. Furthermore, there is a tertiary impact, which gets to some of the broader socio-economic conditions that get realized after projects are completed, such as the reduction of poverty, good health and wellbeing, decent work and economic growth, and so on, notes Henderson.

RECOMMENDATIONS

- Accelerate the national carbon pricing schedule beyond its current levy of \$50/tonne by 2022. The social cost of carbon has been estimated to be as high as \$220/tonne. While the government of Canada’s own 2016 estimates placed the central cost at \$40.7 and its corresponding 95th percentile estimate at \$167 (scaling up to \$74.8 and \$319.8, respectively, by 2050, in C\$ 2012), a price schedule that low cannot move market supply and demand at the speed needed to reach Canada’s 2030 and 2050 targets.
- Continue to grow Canada’s clean energy sector by increasing public investments and subsidies, which not only provide early-stage capital, but also de-risk projects to leverage billions more in private sector financing.
- Commit to clean energy partnerships that center Indigenous communities and have them control local projects, to spur numerous economic benefits for their local communities and provide long-term energy and economic resiliency.
- Continue to scale just transition initiatives beyond the coal sector, to oil and gas workers, in order to accelerate the repurposing of skills towards clean energy projects.

CASE STUDY: DOKIS FIRST NATION OKIKENDAWT HYDRO PROJECT



Source: Indigenous and Northern Affairs, Success stories: Economic development, Dokis First Nation Okikendawt Project

Across Canada, First Nations have grown the number of clean energy projects drastically, providing energy independence, revenues, jobs and resiliency to their communities. The Dokis First Nation, located on the boundaries separating the Districts of Parry Sound, Sudbury and Nipissing in Ontario, is a successful example. In June 2015, the Dokis completed the Okikendawt Project, a hydroelectric facility that served to replace coal-fired electricity across the province of Ontario. The 10-megawatt dam produces enough power equal to the need of roughly 3,000 homes, and collects up to \$4 million in revenue per year for Dokis leadership to allocate towards community infrastructure, social programs, and environmental conservation.

Starting in 2007, the previous Dokis chief, Denise Restoule, took a community-centric approach in consulting with members about the proposal. This eventually led to a significant milestone for the Dokis, when in 2013 they voted against sections of the Indian Act dealing with land, to ratify their own land code and reclaim independence in the management of their resources. This was followed by a 97% vote in favour of the Okikendawt dam.

By building this project, with the support of Chris Henderson and Indigenous Clean Energy Advisors, the Dokis Nation was able to secure a long-term asset for their community, providing years worth of benefits to come. Throughout this project they also protected and rebuilt habitats for local wildlife and spawning beds for fish; employed 35 people from their community, including the two stationary engineers; and gathered income from the project to reinvest in their community infrastructure, local education and economic development. “Project design and partnerships have to be done with that intention up front”, notes Henderson. This holistic approach serves as a model for Indigenous communities across Canada, with access to energy on their lands, to take advantage of their resources in a responsible way.

The Dokis, partnering with Quebec firm Hydro-mega, own 40% of the project. With the province of Ontario committing to buy electricity from the facility until 2055, the outlook for the Nation’s economic growth looks extremely positive. Projects like these are excellent examples of the interlinkages between SDGs. Indigenous clean energy projects across Canada highlight the traditional roles and knowledge Indigenous peoples possess as historic stewards of the land. Offering an alternative to the norm of fossil fuel extraction projects, which have been the centerpiece of the Canadian economy in the past, the Dokis’ Okikendawt project provides a pathway towards reconciliation and decolonization in unison with climate objectives. True and equitable reconciliation requires that Indigenous communities become self-governed and self-reliant, and are not pressured or coerced by settler governments to pursue particular pathways of development.

For First Nations leaders, projects like these grant them independence from reliance on the government of Canada. Fair relationships in the distribution of ownership goes far in ensuring that First Nations are set up well, especially after taking on large sums of debt to start projects (which is often the case). Furthermore, ownership also provides them with leverage to ensure that both training and immediate employment are given to the local nation’s members, as in the Dokis Nation’s case.

As governments play a key role in incentivizing the participation of Indigenous communities in these projects, provincial governments and their Federal counterpart should step up to their reconciliation commitments to Indigenous peoples by continuing to subsidize community ownership in clean energy projects. By doing so, they not only accelerate the transition towards a clean energy future, but also reduce poverty and inequality, spur economic growth, and touch on a host of additional benefits encompassed by the SDGs.

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SUSTAINABLE CITIES AND COMMUNITIES



TARGETS



Make cities and human settlements inclusive, safe, resilient and sustainable.

TARGET 11-1

SAFE AND AFFORDABLE HOUSING

By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

TARGET 11-5

REDUCE THE ADVERSE EFFECTS OF NATURAL DISASTERS

By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

TARGET 11-2

AFFORDABLE AND SUSTAINABLE TRANSPORT SYSTEMS

By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

TARGET 11-6

REDUCE THE ENVIRONMENTAL IMPACT OF CITIES

By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

TARGET 11-3

INCLUSIVE AND SUSTAINABLE URBANIZATION

By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries

TARGET 11-7

PROVIDE ACCESS TO SAFE AND INCLUSIVE GREEN AND PUBLIC SPACES

By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

TARGET 11-4

PROTECT THE WORLD'S CULTURAL AND NATURAL HERITAGE

Strengthen efforts to protect and safeguard the world's cultural and natural heritage

TARGET 11-A

STRONG NATIONAL AND REGIONAL DEVELOPMENT PLANNING

Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning

SUSTAINABLE CITIES AND COMMUNITIES



By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels



Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials

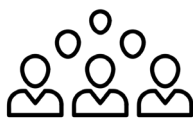
EXPERT CONTRIBUTORS

- **Christopher Bell**, a Masters candidate in Urban Planning at the University of Waterloo, Summer Associate for Infrastructure Ontario, and Regional Focal Facilitator for the United Nations Major Group for Children and Youth.
- **Dr. Penelope Gurstein**, Urban Planning Professor and Director of the University of British Columbia's School of Community and Regional Planning.
- **Dr. Meg Holden**, Associate Professor of Urban Studies and Geography at Simon Fraser University.
- **Rosanna McGregor**, President of the Aboriginal Housing Management Association (AHMA) and Executive Director for the Cariboo Friendship Society in Williams Lake, British Columbia.
- **Andrea Reimer**, Vancouver City Councillor.

In 2016, 83.2% of the population lives inside cities, while only 16.8% of the population lives outside of the urban sector.

From 2006 to 2016, the urban Aboriginal population increased by 59.7%

CROSS-CUTTING THEMES



Indigenous Communities

More half of Aboriginal people live off reserves and in urban areas. However, their voice and participation in developing a sustainable city are still considered an afterthought. Basic health and social services do not always adapt to cultural sensitivities and relevancy due to possible retraumatization.



Gender

The lack of safe and adequate public transportation that connects rural and remote areas to urban areas has resulted in people, particularly women, to resort to hitchhiking. Since the 1970s, there have been 18 reported cases of missing or murdered women to the British Columbia's Royal Canadian Mounted Police with 10 of those cases were identified as Aboriginal women. However, several NGOs and Indigenous groups have referenced approximately 40 women having disappeared or murdered. As a result, Canada launched an independent National Inquiry into Missing and Murdered Indigenous Women.



Climate Change

The rise in sea levels and forest fires have threatened and disturbed the financial and environmental sustainability of many communities. Furthermore, infrastructures are not prepared to accommodate for natural disasters.



Youth

Young people are making sustainable transportation choices by walking or cycling, however, they are disproportionately in traffic-related collisions. Not only are they at most risk of collision with a motor vehicle, but they have the highest portion injury or fatality rates.

NATIONAL DATA

- From 2006 to 2016, Canada's population has grown by 11.2% from 31,612,897 to 35,151,728.
- In 2016, 83.2% of the population lives inside cities, while only 16.8% of the population lives outside of the urban sector.
- Aboriginal people account for 4.9% of the total population with 1,673,785 Aboriginal people in Canada.
- From 2006 to 2016, the urban Aboriginal population increased by 59.7%.
- 44.2% of First Nations people ARE living off reserves.

Introduction

Sustainable Development Goal 11: Sustainable Cities and Communities aims to make cities safe, inclusive, resilient, and sustainable for the ever-growing number of urban dwellers through bettering urban planning practices. Rapid urbanization results in high concentrations of economic resources, making cities an attractive and desirable area for settlement for those hoping or needing to access these resources.

Subsequently, new immigrants and young rural residents moving to urban areas in pursuit of educational and job opportunities put pressure on cities and communities to continually accommodate its diverse and growing population. At the same time, urban growth pushes vulnerable people out of the city due to development projects that increase the value of properties. The lack of access to affordable housing and an adequate public transportation system become barriers for vulnerable groups to continue living in and around the urban core. Urban sectors must provide basic services and adequate infrastructure that promotes a safe, inclusive and resilient community.

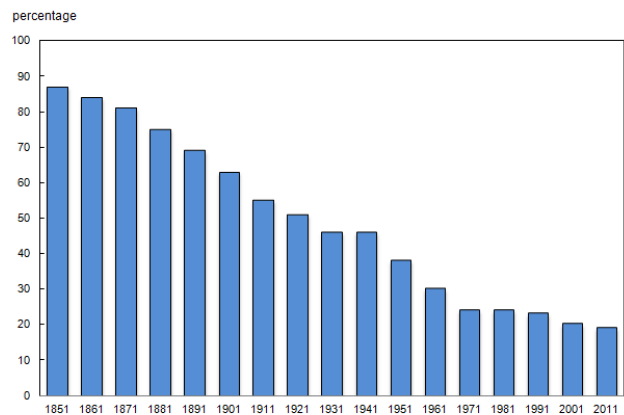
For this chapter, five experts from diverse backgrounds were interviewed to comment on Canada’s progress towards Sustainable Development Goal 11, keeping the principal of ‘No One Left Behind’ in mind. The experts are comprised of civil society leaders, city council government representatives, and university professors who are familiar with both grassroots advocacy initiatives and government-level policies for sustainable cities and communities. Recognizing that “vulnerable groups” is a broad category, this report will focus on the disadvantages faced by youths, Indigenous Peoples, and low-income urban dwellers. Sustainability initiatives at a federal, sub-national and municipal level were reviewed, with particular focus on the provincial progress of British Columbia and the municipal initiatives of Vancouver.

Three themes were identified as encompassing the spirit of the goal and its interconnectedness with the other Sustainable Development Goals: housing, transportation, and natural disasters.

Affordable Housing

Major societal and economic changes in Canada resulted in a steady decline of young adults living in rural areas. Among the G7 countries, Canada has the third lowest portion of the population living in rural areas. According to Dr. Penelope Gurstein, Urban Planning Professor and Director of the University of British Columbia’s School of Community and Regional Planning, northern and southern communities have disproportionate economic development opportunities. Unlike the dense metropolitan communities in the south, northern communities are scattered in remote areas and therefore have limited opportunities for economic development. Drawn by those opportunities and resources, rural migration and new immigrants settling in urban centres has resulted in an upswing in housing prices as land becomes scarce. There is therefore a need to establish a range of affordable housing, beyond homeownership, by strengthening rental agreement and tenant tenure protection policies.

Chart 1
Proportion of the population living in rural areas, Canada, 1851 to 2011



Note: The data presented for the censuses from 1851 to 1951 are based on the definition of rural areas in use at that time.
Source: Statistics Canada, censuses of population, 1851 to 2011.

Source: Statistics Canada, “Census of population 1851 to 2011,” Canada Goes Urban, 2015.

In particular, young adults between the ages of 15 to 29 have been migrating from rural dwellings into urban areas - a figure projected to increase over the coming years. In 2011, only 17% of the young adults lived in rural areas. Chris Bell, a Masters candidate in Urban Planning at the University of Waterloo, Summer Associate for Infrastructure Ontario, and Regional Focal Facilitator for the United Nations Major Group for Children and Youth, notes that cities and communities need to rethink the traditional North American cultural construct of residential landscapes and single family dwellings. Single family dwellings are not only unaffordable, but are not energy efficient in a high density population from an environmental standpoint. Instead, he believes that communities should shift the focus of residential land use toward protecting farmlands that surround the city, and adapt to a more densified community by accept-

Integrated and Sustainable Housing

For an urban sector to be inclusive and for urbanization to be sustainable, vulnerable and minority groups should not be neglected, but rather explicitly considered in urban planning. Even though Canada does not have slums in the traditional sense, there is a low-income population in least-desirable neighbourhoods. Addressing this social issue goes beyond affordable housing and must incorporate accommodative housing that address various social needs.

Integrated housing blends supportive affordable housing units in developments, applying this strategy prevents housing developments from turning into ghettos. This model ensures that subsidized housing is economically sustainable as well as providing affordable housing alongside rentals at market value. The federal government is continually partnering with

“We need to update relevant building codes and regulation policies to integrate and reflect the different cultures within the urban core.”

—Andrea Reimer, Vancouver City Councillor

ing an alternative compact way of living. Living in a more dense and compact lifestyle provides affordable housing and is more apt to supply appropriate homes for young people, Indigenous Peoples, and other vulnerable groups since they can offer better access to services and more supportive community structures. Some communities are beginning to take steps to incorporate a youth perspective into their affordable housing planning by establishing their own youth council and advisory boards. Bell, however, had difficulty seeing the result of these youth initiatives because there has not been a lot of evidence on how youth consultation and engagement will result in changes or what kind of recommendations will show follow through.

Nonetheless, the renewed interest in youth is a stepping stone to incorporating youth voices in addressing problems across all levels of government.

the Canadian Housing Revenue Association and Aboriginal Housing Management Association (AHMA) to provide support for this model, and to create and share new ideas for housing initiatives.

Currently, British Columbia is one of the provinces that is still investing in and interested in providing social housing, with providers keen on recognizing its advantages. Rosanna McGregor, President of AHMA and Executive Director for the Cariboo Friendship Society in Williams Lake, British Columbia, and AHMA have an exemplary transactional relationship between the provincial government and with non-profit organizations spearheading project initiatives that addresses the housing crisis for Aboriginal people, while considering the social and cultural needs in urban planning and in the engineering of housing structures. The Provincial Government of British Columbia recently announced plans for a new affordable rental housing in the Downtown Eastside of Vancouver, us-

ing an integrated housing model that reserves units to be rented at a welfare rate and the remaining units at market cost. Creating alternative housing solutions with the provincial government shows solid partnership with civil society organizations who are on the ground with the people, understanding their needs, recommending and lobbying for programs that are proven to work.

Creating culturally safe spaces through urban planning and housing development allows Aboriginal people, and also different cultural groups, to find and feel a sense of community within the city. Having experienced the residential school system, elderly Aboriginal people often face re-traumatization if they are put back in environments that they consider similar to their residential school experiences such as hospitals or nursing homes.

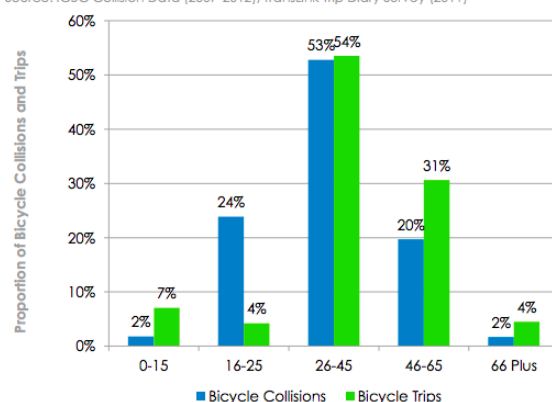
Still, McGregor found that a lot of elderly Aboriginal people would move to Kelowna, BC for the Aboriginal nursing home because of its culturally appropriate and safe environment. Employing the model of the nursing home in Kelowna provides a good foundation in how to implement measures and considerations to provide culturally safe and sensitive accommodative housing. Additionally, Vancouver City Councillor, Andrea Reimer, updated relevant building codes and regulation policies to integrate and reflect the different cultures within the urban core. She speaks to encounters with communities residing in small, inadequate buildings, specifically a South Asian immigrant community from the Punjab region of India. She arranged town meetings, yet not many of them showed up. To meet in the middle, she instructed her engineers to meet with the community at the temple, where they were able to engage with the South Asians and receive feedback on changes to the building codes that would suit their different cultural needs and factor in their different experiences in how they utilize space. This example demonstrates the need to consider cultural sensitivity in all levels of urban planning, especially when providing social services.

Transportation

In addition to the lack of affordable housing, Bell notes young people are making sustainable transportation choices. However, the group is still disproportionately impacted by traffic-related fatalities. Although Statistics Canada has not been able to provide a nationwide report on these statistics, local data from some of Canada's largest municipalities confirms the assertion. Nationally, there is a fatality rate of 8.8 per 100,000 population in all modes of transportation. For comparison, the transportation fatality rate in the Netherlands is 4.8. Within Canadian urban centres, 41.1% of males and females have reported to have cycled in the past 12 months. There is a large disparity in traffic-related fatality rates between motor vehicle occupants, cyclist and pedestrians. In British Columbia, per 100 million person-trips, the rate for drivers and passengers injuries is 713 and 9.6 for fatalities; pedestrians have a 392 injury rate and 14.7 rate for fatalities; bicyclist have a 1398 injury rate and 13.8 rate for fatalities. In Vancouver, young adults, between the ages of 16-25, are more likely to be being involved in a cycling collision. In Vancouver, young adults accounted for 4% of all daily bicycle trips, yet accounted for 24% of all reported cycling collisions. Young adults also make up the highest proportion of injuries and fatalities from cycling, as well as being the highest risk for experiencing the most severe injuries or fatalities as a result of a collision with a motor vehicle. As a result, the current traffic design has negatively impacted youths from choosing more sustainable methods of transportation.

Walking and cycling are sustainable alternatives to motor vehicles as it reduces greenhouse gas emissions but also promotes an active and healthy lifestyle. Dr. Gurstein suggests adopting the European model that uses fewer resources by designing cities to be more walkable and transit-oriented. Bell recommends that local government implement better policies for the design of traffic systems to include more protected bicycle lanes, which in turn will encourage people to use sustainable forms of transportation. In contrast, European countries have lower bicycle and pedestrian injury and fatality rates because their infrastructures are conducive to these alternate forms of transportation. While in Canada and the United States cyclists are placed on roads, often beside moving or parked motor vehicles.

Figure 7.1
Proportion of Reported Motor Vehicle – Bicycle Collisions and Bicycle Trips by Age
Source: ICBC Collision Data (2007-2012), TransLink Trip Diary Survey (2011)



Source: City of Vancouver, "Portion of Reported Motor Vehicle - Bicycle Collisions and Bicycle Trips by Age," *Cycling Safety Study: Final Report, Urban Systems, 2018*

"In British Columbia, per 100 million person-trips, injury rates for: drivers and passengers is 713; for pedestrians is 392; and for bicyclists is 1398."

"In Vancouver, young adults account for 4% of all daily bicycle trips, yet 24% of all reported cycling collisions."

Rural-Urban Transportation

In rural and remote communities, inadequate transportation limits the ability for vulnerable people to access the resources they need — whether it be their place of work, social or health services. With affordable housing as an issue, vulnerable groups are unable to relocate to the urban core to access health and social needs. Therefore, adequate and safe public transportation is vital to connecting remote communities to the larger cities. According to Dr. Gurstein, the lack of proper, safe and accessible public transportation that connects remote areas to larger cities has become a life and death situation.

Highway of Tears



Guardian graphic

Source: *The Guardian*, "Highway of Tears," *The Guardian*, 2017.

For example, Highway 16 in British Columbia, which cuts through the northern part of the province and winds through First Nation reserves, is known as the "Highway of Tears" because of the many women—mostly Indigenous - who have disappeared or been found murdered along the route. Due to poverty and inadequate access to public transportation, people who want to go into the city resort to hitchhiking. Aboriginal women disproportionately represent the number of women reported as missing or murdered along the road. Since the 1970s, British Columbia's Royal Canadian Mounted Police listed the disappearance or murder of 18 women from the Highway of Tears; 10 of the 18 identified as Indigenous women. However, Human Rights Watch states that several Indigenous groups have come forward referencing approximately 40 women having disappeared or murdered. As of 2016, the British Columbia government has issued funding for the Transportation Action Plan for Highway 16 that includes the expansion or having new public transit services, as well as a new transit shelter and webcams.

Climate Change Impacts

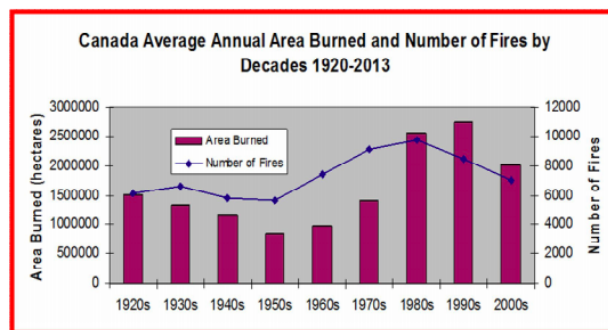
Since 1948, Canada has become 1.3°C warmer, which is twice the global average increase. Precipitation in Canada, although harder to measure due to its discontinuous nature in its various states of rain, snow and freezing rain, has on average has produced a mean of 12% increase in the country's wetness. Extreme warm summer temperatures that exceed 30°C is projected to increase across Canada, with heat waves becoming more intense and frequent. In British Columbia, data from 1900 to 2013 shows that the province has experience an average annual temperature warmed by 1.4 °C. With precipitation as a fundamental aspect of climate, therefore is also a key indicator of climate change. Province-wide annual precipitation increased by 12% per century. Increased precipitation may be responsible for increased flooding, and damage to ecosystems and infrastructure. The year-to-year variability may have an adverse impact on the wetland, as well as complicating water planning.

Flooding

Rising sea levels due to climate change is causing considerable flood risk to Metro Vancouver. Dr. Meg Holden, Associate Professor of Urban Studies and Geography at Simon Fraser University, notes flooding is the biggest risk in the region as it threatens and presents a real danger to public land, since public infrastructures are not equipped to bear the effects of climate change. This is due to the underinvestment in the upkeep and maintenance to protect public parks, green spaces, and wildlife habitat; as well as public infrastructure such as roads, bridges and tunnels. Areas of particular risks are the Fraser River Delta, where 100 square kilometre of land lies within one metre of sea level, and Prince Rupert, which experiences high water events more frequently than other coastal areas. Flooding will have a larger impact in vulnerable communities, particularly within homeless communities, where mobility, transportation, and the necessary resources needed to relocate are scarce. Limited resources can also affect low income families who do not have substantial financial resources to relocate temporarily or to renovate their homes to prepare for disasters.

Forest Fires

Warmer summer temperatures may increase rates of evaporation and plant transpiration, reducing moisture on the ground, and contributing to dust storms and soil erosion. As a result, demands for irrigation may increase, wetlands may be lost, vegetation growth rates may slow, and the incidence of forest fires may increase. Nationally, there has been huge interannual variability in areas burnt, with a range from less than 300,000 hectares to more than 7,500,000 hectares in any given year. Additionally, fire occurrences can range from approximately 3,000 to 11,000 fires annually. In recent years, trends in both fire activity and area burnt appeared to have risen steadily, with an average of more than 8000 fires and 2 million hectares burned, compared to the trends in the early 1920s with an average of 6000 fires and less than 1 million hectares burned.



Source: B.J. Stocks Wildfire Investigations Ltd, "Canada Average Annual Area Burned and Number of Fires by Decades 1920 - 2013," *Evaluating Past, Current and Future Forest Fire Load Trends in Canada*, 2013. <https://www.ccfm.org/pdf/2%20Fire%20Load%20Trends.pdf>

In the summer of 2017, the Government of British Columbia declared a state of emergency that lasted 70 days, between July 7 until September 15th, during the peak activity for forest fires. This marked the longest state of emergency in the province since the firestorm in 2003. Large and unpredictable forest fires presents a challenge for both budgeting and resourcing management agencies, as its peak often strips available resources. Over 4,700 personnel were engaged in fighting wildfires across BC, with 1,200 personnel from outside of the province and international support with personels from Australia, New Zea-

land, Mexico, and the United States. As a result, over 1.2 million hectares of land was burned, and the total cost of fire suppression cost over \$586 million CDN, and displaced roughly 65,000 people. Threats of natural disasters to communities can disproportionately affect its members, especially from low income backgrounds as one of the most vulnerable as they lack the due to economic constraints of evacuating. With a town of residents, the evacuation alert forced thousands to migrate to a nearby community in Kamloops, which can be a three to nine drive. Due to the forest fire some evacuees had to find work in other cities. The evacuation also left the community of Williams Lake understaffed. With a fluctuating wildfire trend, it is difficult not only to manage risks associated with climate change, but also to build resilience in communities - both the people and the infrastructure.

Policies for a Greener City

Vancouver City Councillor Andrea Reimer points to the City of Vancouver's Corporate Climate Action Plan - signed by municipalities in Metro Vancouver - and Greenest City 2020 Action Plan as examples of policy approaches to designing greener cities. Collectively, cities across the region are adopting greener policies to collectively reduce carbon emissions and waste, and to build resilience to the impacts of climate change. Councillor Reimer states that even though this action plan is a non-binding commitment, the act of monitoring and reporting on the targets is enough to drive action. The Greenest City 2020 Action Plan led to the construction of the Vancouver Convention Centre as the first double LEED Platinum award building in the world, as well as to the world's tallest hybrid wood building at the University of British Columbia. Dr. Holden admits that LEED certification is considered a low bar in terms of setting a framework for reducing toxic, dangerous and non-renewable resources for construction. However, using renewable resources or reclaimed wood-based materials sets a precedent and can be adapted to future buildings that are environmentally friendly, less energy intensive to manufacture, and more affordable. As part of its Zero Waste 2040 strategy, the Vancouver City Council approved a new bylaw in May 2018 to ban the use of disposable plastic straws and styrofoam to-go cups and containers by 2019 in an effort to further mitigate climate change.

“Over 1.2 million hectares of land was burned; the total cost of fire suppression was over \$586 million CDN and displaced roughly 65,000 people.”

SUSTAINABLE CITIES & COMMUNITIES AND AGENDA 2030

SDG 11, Sustainable Cities and Communities intersects with almost every goal in the 2030 Agenda. Creating an inclusive city that considers the social and cultural needs of vulnerable groups has a positive influence on their health and well-being (SDG 3). Considering and consulting with different social and cultural groups for housing development reduces systemic inequalities that marginalize vulnerable groups' experiences (SDG 10).

Moreover, cities and communities have adopted and mitigated climate change (SDG 13) by implementing policies such as building resilient and sustainable infrastructure and fostering sustainable innovation in incorporating renewable resources for development (SDG 9). Additionally, mitigating climate change also entails implementing policies that promote responsible consumption and production (SDG 12) to manage and decrease overall waste. These policies will educate people (SDG 4) on protecting life below water and land (SDGs 14 and 15) from waste and pollution.

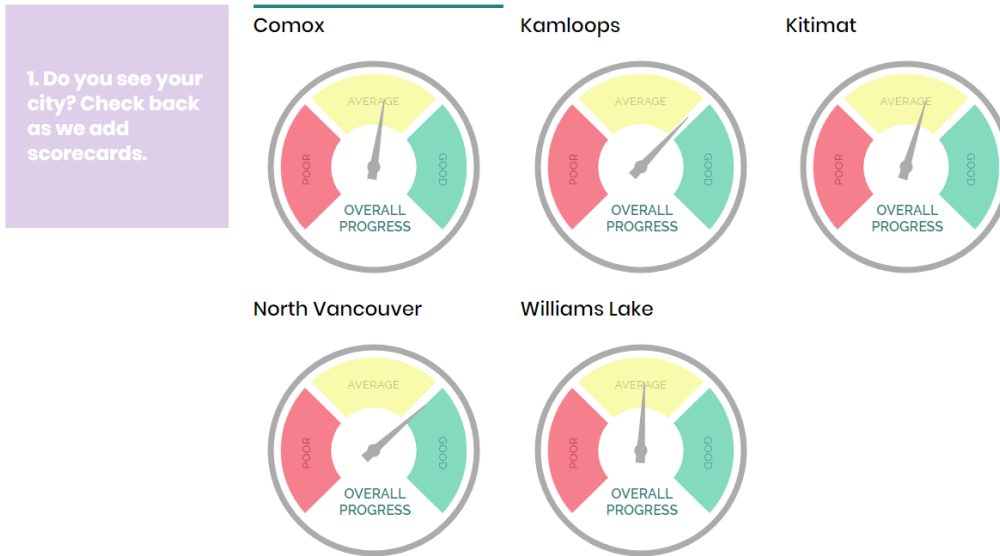
RECOMMENDATIONS

- Increase range of supportive and affordable housing, especially for the elderly, that is socially and culturally relevant.
- Provide stricter policies to protect and secure rental tenures.
- Improve relations with Aboriginal Peoples for knowledge sharing on environmental sustainable initiatives.
- Improve infrastructures to ensure the protection of wildlife, ecosystems and communities from natural disasters.
- Implement designated bike lanes in infrastructural design.
- Expand public transportation that connects urban areas to rural and remote regions.

CASE STUDY: SDG SCORECARDS FOR CITIES

Community Scorecards

Discover how six communities in British Columbia are doing on the Global Goals.



Source: BC Council for International Cooperation. BC 2030. Community Scorecards. <https://bc2030.ca/achievingTheGoals.htm>

Localizing the SDGs is critical to the success of the 2030 Agenda for Sustainable Development. Localization takes into account “on-the-ground” contexts and reflects the reality that the responsibility for many of the targets falls under regional and local government authority.

Since 2016, the British Columbia Council for International Cooperation (BCCIC) has been engaging with British Columbians across the province to determine how the existing work of individuals and organizations might drive progress toward the SDGs not just in their own communities, but globally as contributors to Canada’s leadership on the goals.

Beginning with a series of 31 roundtables across 29 communities, BCCIC met with over 700 local leaders that included representatives from Indigenous communities, youth, civil society, and government. From these meetings emerged a Movement Map of over 2500 organizations and individuals interested in achieving the SDGs. Several of these communities also expressed interest in tracking their toward the

SDGs; something local communities are well placed to monitor as they localize the Goals, and are able to identify relevant measures of success that can ensure no one is left behind. Community engagement in data collection can further ensure that data are relevant, actionable, and acted upon.

To support community interest, BCCIC developed an SDG Scorecard as a tool for municipalities to track local progress toward the SDGs. The scorecards analyse existing Official Community Plans and supporting municipal strategies such as climate action plans, healthy city strategies, and housing and transportation plans, to align local targets and indicators with the ones laid out in the SDG framework. By linking local targets to the internationally recognized ones within the SDG framework, communities can make a direct link between their contributions toward local sustainable development and the contributions that Canada has committed to as a partner on Agenda 2030. After all, issues such as transportation and infrastructure development are often handled at the municipal level and only by incorporating community targets and data into the “Canadian picture” can we make sure that Canada’s reporting is more geographically and demographically precise, in turn identifying measures of success that can ensure no one is left behind.

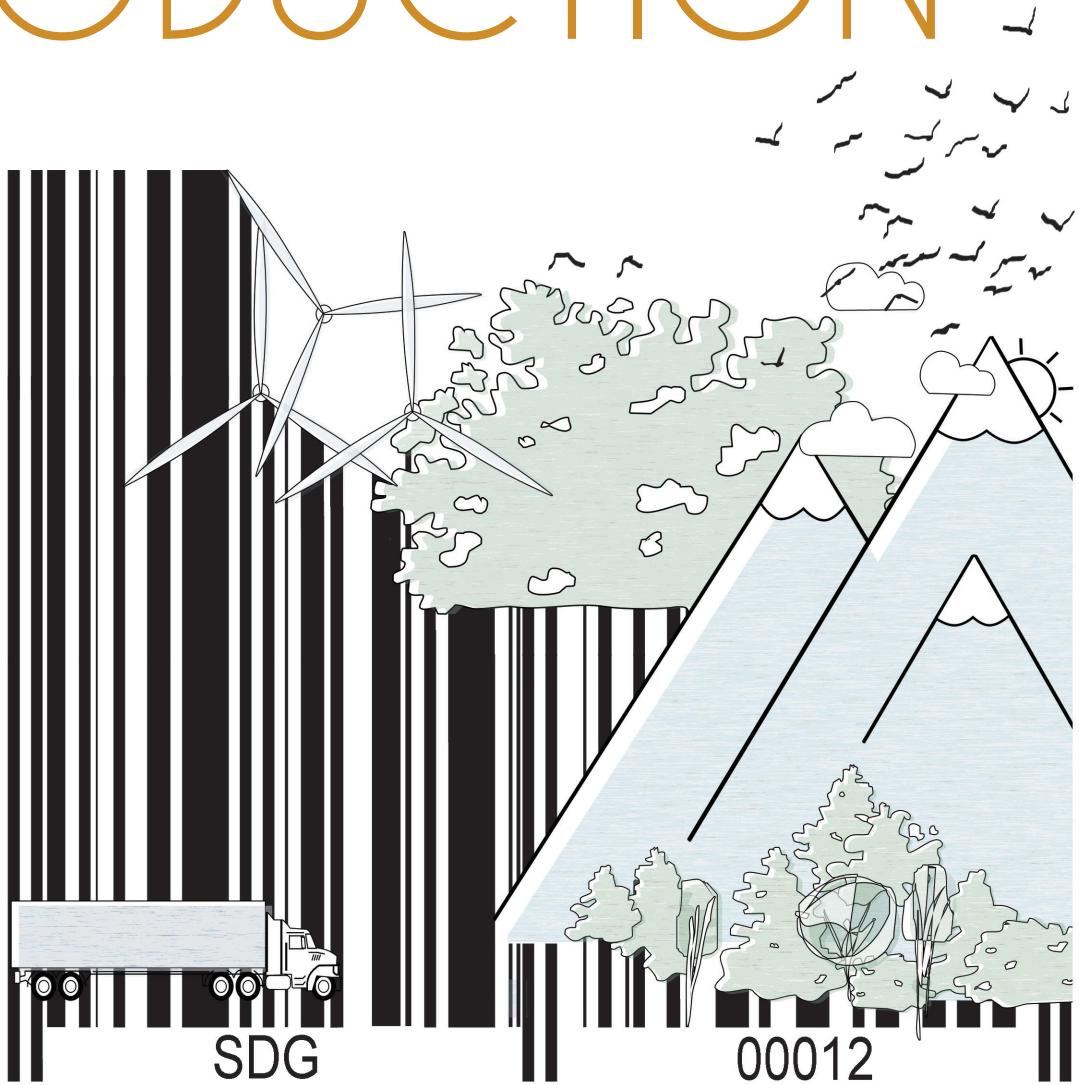
Working with the SDG Scorecards has of course presented challenges. The UN framework does not fit perfectly within the Canadian context - for instance, the globally defined poverty line of \$1.25/day does not make sense in the Canadian context, but neither Canada nor BC has a clear definition of poverty. As a result, proxy indicators must often be used. Coupled with the need to interpret local planning language to align local intent with a global framework, there will always be a small level of uncertainty or bias introduced into the selection of local indicators. Still, the SDG Scorecards have proven to be a useful tool for local communities to measure local progress and engage with local government to address the gaps that it identifies. BCCIC is now working with the International Institute for Sustainable Development (IISD) to expand the scorecards into a digital community indicator system.

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RESPONSIBLE CONSUMPTION- TION AND PRODUCTION



TARGETS



Ensure sustainable consumption and production patterns.

TARGET 12-1

IMPLEMENT THE 10-YEAR SUSTAINABLE CONSUMPTION AND PRODUCTION FRAMEWORK

Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

TARGET 12-5

SUBSTANTIALLY REDUCE WASTE GENERATION

By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

TARGET 12-2

SUSTAINABLE MANAGEMENT AND USE OF NATURAL RESOURCES

By 2030, achieve the sustainable management and efficient use of natural resources

TARGET 12-6

ENCOURAGE COMPANIES TO ADOPT SUSTAINABLE PRACTICES AND SUSTAINABILITY REPORTING

Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

TARGET 12-3

HALVE GLOBAL PER CAPITA FOOD WASTE

By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

TARGET 12-7

PROMOTE SUSTAINABLE PUBLIC PROCUREMENT PRACTICES

Promote public procurement practices that are sustainable, in accordance with national policies and priorities

TARGET 12-4

RESPONSIBLE MANAGEMENT OF CHEMICALS AND WASTE

By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

TARGET 12-8

PROMOTE UNIVERSAL UNDERSTANDING OF SUSTAINABLE LIFESTYLES

By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

RESPONSIBLE CONSUMPTION AND PRODUCTION

TARGET 12•A



SUPPORT DEVELOPING COUNTRIES' SCIENTIFIC AND TECHNOLOGICAL CAPACITY FOR SUSTAINABLE CONSUMPTION AND PRODUCTION

Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

TARGET 12•B



DEVELOP AND IMPLEMENT TOOLS TO MONITOR SUSTAINABLE TOURISM

Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products

TARGET 12•C



REMOVE MARKET DISTORTIONS THAT ENCOURAGE WASTEFUL CONSUMPTION

Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

EXPERT CONTRIBUTORS

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- **Jamie Kaminski**, Co-Founder & Board Member, Zero Waste Canada; Board Member, Zero Waste International Alliance (ZWIA)
- **Stefan Jungcurt**, SDG Indicators & Monitoring Lead, International Institute for Sustainable Development (IISD)
- **Ugo Lapointe**, Canadian Program Coordinator, Mining Watch Canada

CROSS-CUTTING THEMES



Indigenous Communities

Indigenous communities face disproportionate impacts from the consequences of traditional resource extraction and waste development in consumption and production practices. Respecting Indigenous traditional territories, knowledge and rights is a critical piece of the movement towards a circular economy, as we reorient our consumption to return back to the land what we consume.



Gender

Gender has clear and significant interlinkages with consumption and production decisions. Greater female leadership in business and government yields positive environmental outcomes through the reform of sustainable production decision-making.



Climate Change

Sustainable Consumption and Production practices are closely related to climate change, and are a vitally important part of the path towards a low-carbon, sustainable world. Namely, targets relating to fossil fuel subsidies and GHG-producing food waste are of particular importance.



Youth

Youth are critically important in the push towards zero-waste, circular, clean economies. Pollution resulting from poor procurement, consumption and agricultural practices will be saddled on the next generation. Changing the life-cycle of our consumption decisions is of dire importance for the survivability of future generations.

NATIONAL DATA

- 12.2.2a (direct household energy consumption, 2015) = 2,798,362 terajoules;
- 12.2.2b (direct household energy use per capita, 2015) = 78.1 gigajoules;
- 12.2.2c (direct plus indirect personal expenditure energy use, 2014) = 5,216,046 terajoules;
- 12.2.2d (direct plus indirect personal expenditure energy use, per capita, 2014) = 146.8 gigajoules;
- 12.2.2e (household water use, 2013) = 3,239,158,000m cubed;
- 12.2.2f (household water use per capita, 2013) = 92.1m cubed;
- Total Canadian Finance devoted to fossil fuel production (2015-2016): \$4.74 billion
- Material footprint per capita, 2010 (sum of the material footprint for biomass, fossil fuels, metal ores and non-metal ores, measured in tonnes per person per year): 28.37 metric tons / capita
- Material footprint per unit of GDP, 2010 (attribution of global material extraction to domestic final demand of a country. The total material footprint is the sum of the material footprint for biomass, fossil fuels, metal ores and non-metal ores. This is measured as kilograms of material per US\$): 0.78 kg/\$
- Domestic material consumption (DMC) per capita, 2010 (measured in tonnes per person per year, is a production-side measure of the use of materials within an economy. A country's DMC may therefore be lower if it outsources a lot of production): 22.3 metric tons / capita
- Domestic material consumption per unit of GDP, 2010 (Domestic material consumption (DMC) per unit of gross domestic product (GDP), measured in kilograms per US\$, is a production-side measure of the use of materials within an economy. A country's DMC may therefore be lower if it outsources a lot of production): 0.62 kg/\$

Introduction

SDG 12, Responsible Consumption and Production, encompasses several issues pertaining to sustainable development, resource utilization and reuse; including waste and recycling, natural resource extraction and mining, supply chain management, fossil fuel subsidies and capacity-building. This section will go over Canada's progress and shortcomings on issues relating to SDG 12, as well as recommendations and focal points that need attention moving forward, from the perspectives of civil society experts across Canada.

Producer / Consumer Dichotomy

Both consumer education / awareness and producer responsibility are important in cleaning up markets. Tackling the source of waste is key. Moreover, if there are a lack of options in the market for limited/single-use products, people won't have the option to use them. Consumers can only use their reusable containers so much to solve the problem of waste. Ultimately, the responsibility must fall on the companies providing products and services. In order to change the landscape of how we consume products in Canada, additional scaling is needed to provide services that phase-out the need for single-use items and packaging, and respond to the growing demand for circular products with a focus on reusable products, packaging and systems among consumers. Social norms among consumers regarding waste must also change for desired outcomes on zero-waste to be adopted.

Waste & Disposal

Waste Imports & Exports

From the viewpoint of advocating for highest and best use of materials, developing country and emerging economy (eg. China) bans on the imports of developed countries' waste appears to be a positive development, as it restricts the amount of contamination flowing from the developed to developing world, and pushes back on countries like Canada, who have taken advantage of developing countries for years to easily dispose of their waste and consider it 'recycled', without solving core issues behind their consumption and production practices. Ostensibly, countries and sub-national actors who have a lack of recycling infrastructure are not necessarily worse off, as this alternative starting point lets them catch up to zero waste initiatives much more rapidly than those saddled with expensive legacy infrastructure. There is no longer a concern with closing them down and experiencing irredeemable lost capital costs when citizens begin to reduce waste or switch to reusable systems. "The indecision [on a pathway] is the problem... if countries like Canada don't decide to address the [waste] situation, they will be in a bad position" says Jamie Kaminski, Zero Waste International Alliance (ZWIA) Board Member and Co-Founder of Zero Waste Canada.

Sub-National Initiatives

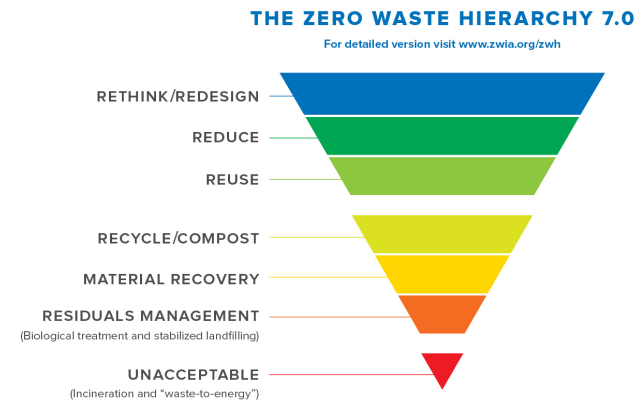
While not completely in line with international guidelines, the City of Vancouver has begun to implement zero waste strategies and discuss waste reduction more broadly. So far, bans on plastic straws and bags have enveloped the conversation around waste reduction. However, while bans on particular disposable materials are important, it is not necessarily the best approach to single-out a particular material type. Kaminski states:

“In my discussions, I talk more about the application... let’s not [just] look a plastic straws, let’s look at single-use straws... Straws aren’t the problem, the problem is that we use them for 2 seconds and then throw them out regardless of whether they’re plastic or paper.”

While paper consumables are preferable to their plastic counterparts in terms of their impact on the environment, the waste problem still remains. Banning plastic straws alone is considered a ‘band-aid solution’ rather than the systemic change that is needed. “We advocate for all disposable straws to be eliminated” adds Kaminski, “Straws have a small impact in the grand scheme of things, single-issue items [as a whole] are the huge issue”. Growing a consumption and production system which bans all single-use items should be the goal of all Canadian cities; and the Federal government should do everything in its power to help municipalities get there. Vancouver is moving in the right direction and Montreal is making strides towards impactful waste bans. On the other end of the disposal process, Metro Vancouver has opted against pursuing incinerators due to uncertainty around future waste volumes, while vocal opposition from municipalities continued. In Canada’s east, Ontario communities have constructed incinerators, such as the one in Durham recently, and are struggling with its health and emissions impacts, which have been documented in Europe as well where waste-to-energy incinerators are numerous.

Public Policy

Looking at Canada’s current approach on a large scale, we lack a formal approach to reducing waste from the top-down. “I don’t see a master plan of how they’re going to tackle this. What I see is kind of a patchwork system, and a lot of it is heavily reliant on Extended Producer Responsibility (EPR)” notes Kaminski. While EPR is promoted by many as a program celebrating success, there are unconsidered costs which make it a less desirable system of accountability. In considering ‘*who’s being left behind?*’, existing companies and players who are and have been implementing low-waste initiatives, as well as competition among industry players and the ability to increase program ambition is not sufficiently addressed.



Source: “The way to Zero Waste”, Zero Waste Canada.

Canada is currently following a nationwide trend of approaching waste issues through producer responsibility policy. In British Columbia, where the policy has been considered by some as a benchmark of recycling, producers have responsibility for at least 16 products, and more coming through the new product and packaging program. Governments who aren’t familiar with producer responsibility can portray the program as a ‘silver bullet’ to solving our waste problems. However, “that’s not quite true because they pay very little attention to the collection side of things [where low-income earners reside], so there’s not a significant way of improving people’s’ livelihoods” contends Kaminski. This can result in growing many low-income jobs, as the policy relies heavily on recycling, followed by disposal; nothing else no reuse, no repair. Rather than tackling system change, the policy perpetuates existing waste issues. Traditional

“Straws aren’t the problem, the problem is that we use them for 2 seconds and then throw them out regardless of whether they’re plastic or paper.

...straws have a small impact in the grand scheme of things, single-issue items [as a whole] are the huge issue”

*—Jamie Kaminski,
Co-Founder of Zero
Waste Canada*

electronic recycling programs, for instance, do not necessarily refurbish or test electronics for re-use; collection and subsequent destruction are common practice. This results in little recycling and much disposal. Additionally, high quantities of heavy metals have to be handled in particular ways, which often results in materials being sent to smelting to capture the heavy metals; and plastics are wasted. “Maybe they get more recycling out of it, but that’s as far as it goes; you’re just looking at recycling” adds Kaminski. In sum, when discussing traditional approaches to recycling and the jobs the industry creates - there are better accountability measures that need to be put in place for workers and circular waste models to prosper. If producer responsibility were to move into more of a reuse position (which at this time is currently unlikely), training could be re-approached to have workers in recycling plants test and refurbish the electronics. This would immediately generate higher-paying jobs.

If Canada continues on the path of approaching waste issues with the view that recycling will be the answer, workers will be lead into low-paying jobs and we will miss out on a lost opportunity to advance their skills into a higher paying re-use market (~70% more in terms of wages). Similarly, policies supporting incinerators create a similar issue for Canada in achieving its sustainable development targets, as they are often located in disadvantaged communities, which are willing to accept the infrastructure due to the resulting tax income; yet they bear potentially greater health costs from production externalities. Canada cannot afford to pursue policies which propagate short-term thinking; we must do a better job of using a long-term lens when crafting our solutions to the current waste calamity.

Mining

Mining has clear implications for the goals of responsible consumption and production. A traditionally wasteful industry, it is a critical piece to SDG 12. One of the major trends affecting the global mining industry is the increase in mines opening across the globe, particularly for metals and other materials such as phosphate, potassium, and more marginally, diamonds. However, the ore grade of mines is decreasing, therefore the environmental intensity of the mines is increasing; meaning there's more energy, water, and a larger environmental footprint created for every ton of metal produced. Thus, the community and social impacts associated with these processes are increasing in intensity. In sum, humanity is facing an increasing challenge with its non-renewable metals and resources. Ugo Lapointe, Canadian Program Coordinator at MiningWatch Canada notes:

“I think, more and more we're aware of this, particularly for the petroleum and gas industry, but not so much for metal and other resource industries... there are some fundamental differences between those and oil and gas. We know in a century from now, there won't be much, if any fossil fuel used. With minerals however, the resources remaining to humanity will be quite substantial, it's just that the quality will be so degraded that we will need to displace far more soil and earth, as well as use more energy and water to extract those resources, so the environmental and social impacts will be greater.”

For instance, for each kilogram of metal we consume, particularly in the Western market and emerging Asian markets, “we generate a hundred kilograms of waste”, adds Lapointe. Typically, a metal mine will extract one percent, or half of one percent of metals, depending on the resource, and 99.5% of that is waste. Then that waste needs to be stored above ground, virtually forever, creating tailings and mining waste ponds. The Mt. Polley spill in British Columbia, which spilled 24 million cubic metres of sludge and mine waste into waterways, is an example of the devastation that can be caused in local communities by these tailings. Across the globe, there are thousands of sites building up with dams that are retaining waste. “The reality is that many of them won't last, and they will spill. When this happens, as the research

shows it will at increasing rates, then the waterways, fish, livelihoods of communities downstream, and so on will be harshly affected”, adds Lapointe. The issue of the legacy and liability of large-scale mine waste sites is one of the biggest environmental issues facing the industry moving forward; of which it is aware. There is troubling research showing that the rate of mine failures is increasing, and is likely to increase for several decades. In a recent report, the United Nations Environment Programme (UNEP) called for the global community to act on two recommendations for tailing dam safety: adopting a zero-failure approach to tailing storage, and establishing a UNEP forum for the strengthening of tailing dam regulation across the globe. Furthermore, in an acknowledgement of Canada's high rate of dam failure, the report marked Canada as having the second-worst mining record in the world. The Federal government must take bolder action to regulate the mining sector, coordinate with other countries to minimize spills and reduce the number of tailings accumulating globally.

“For each kilogram of metal we consume we generate a hundred kilograms of waste.”

*—Ugo Lapointe,
Canadian Program
Coordinator at
MiningWatch Canada*



Source: Photo by Zbynek Burival.

Fossil Fuel Subsidies

Fossil fuel subsidies are an issue of critical importance for responsible consumption and production. Whether it's the packaging in consumer goods, the fuel Canadians use to heat their homes, or the transportation choices cities and consumers make, fossil fuel subsidies have massive cost implications for Canada's transition to a clean energy future.

Canada first committed to phasing-out its estimated \$4 billion in annual fossil fuel subsidies in 2009, but never followed-through. Canada's current Liberal government pledged in its most recent election platform that subsidy phase-out was key by 2025, and in June 2018 announced a mutual peer-review of subsidies, with Argentina. In 2018, Canada ranked 3rd overall among its G7 counterparts, with high marks coming from its low support for fossil fuel-based power generation and coal mining, but ranks low in transparency and its support for oil and gas. For Can-

ada to accelerate the clean energy options it needs, and particularly for its carbon pricing plan to work effectively, it must phase out all fossil fuel subsidies in a timely manner.

However, beyond the current subsidies, answering the question of where Canada will move its assets to support clean growth is paramount. Fortunately, Canada faces few resource restrictions in terms of its energy endowment. "Whatever solution emerges as a viable one, Canada does not face any restrictions

in terms of implementation. That means the whole transition issue becomes a question of reallocating the capital that's being spent, in a way that enables a just transition" says Stefan Jungcurt, SDG Indicators & Monitoring Lead at the International Institute for Sustainable Development (IISD). The principle objective is ensuring that the reallocation of public funds doesn't leave behind, or inflict particular hardships, on any specific group. The challenge is not easy, but beginning with a diversity of options and an already established network of renewably-powered grids will give Canada the opportunity to determine the best avenue, and proceed to disseminate best practices to countries who lack resource endowments as rich as Canada's.

Overall, the allocation of subsidies is a challenging issue for a number of reasons. Policies exist at the provincial level, but at the federal level they are different from one province to the next, and differ further for production and consumption. For some of the policies trying to make energy affordable in remote communities other than the north, such as Prince George in British Columbia or communities in northern Quebec, "the energy is often comprised of fossil fuels", says Touchette.

This is problematic, as even in hydro-dense regions like Quebec, where there is a broad electrification of transportation, the strategy is limited to the more densely populated areas. For a rapid shift to take place, policies at all levels of government would have to be reformed. In the transition to sustainable development, faced with goals around reduced inequalities, infrastructure, and poverty, "[it is difficult to] argue against making public transit cheaper, even when that public transit is using oil or diesel" adds Yanick Touchette, Policy Advisor at the International Institute for Sustainable Development (IISD). If the marginal changes can fit within the scope of Canada's emissions reduction goals, then the transit upgrades could be a stepping stone while policies are implemented to make electric buses cheaper. The interlinkages are so numerous, it's hard to have a clear timeline. However, if this step-by-step process cannot fit within Canada's Paris Agreement targets, it's a non-starter.



LNG Facility in Kitimat, BC. Source: "G20 countries spend \$450B a year on fossil fuel subsidies", CBC (2015).

Just Transition

Examining how reforms to direct or tax-based subsidies in the oil and gas industry might have an impact on local communities is critical to Canada's movement to a clean energy future, particularly in ensuring a Just Transition for workers. "[What] we've looked at is trying to map different policies to identify the net influence of investments in different regions of the oil sands," says Touchette. The removal of subsidies is attached to other cascading measures, including a broader strategy for Canada to shift towards carbon-neutral sources of energy, and eventually a reform of the country's economic composition (as Canada remains heavily-reliant on natural resources for its GDP, it will have to diversify in the future). However, for communities based on those resources (oil, natural gas, coal), the intermediary transition requires attention. For example, what are the implications of subsidy phase-outs for rural communities / municipalities who rely on a coal mine to power the local economy? The jobs, employee revenue, and income tax revenue are all assets to the residents. When a natural resource project shuts down, the houses in those communities may become stranded assets and residents will not be able to sell those houses as they move to communities with better employment opportunities. The issue requires a broader perspective, as Canada's clean energy future is not only a matter of reforming the energy mix, but also of conducting a deep and comprehensive analysis of the individual implications the transition has for all communities who currently rely on large natural resource projects for their livelihoods, across Canada.

Moving forward, "the taskforce on coal phase-out [is] a good starting point, and hopefully we can learn and apply those strategies to the oil and gas industries in 5, 10 or 15 years" says Touchette. The transition is already happening in coal communities across Canada, therefore the taskforce will be critical to finding the best solutions. In response, researchers from across the country, and particularly Alberta, have tried to look at how to repurpose the scale of those workers. For instance, "some researchers have been looking at how a portion of workers could be put to work, not in the oil sands or traditional oil wells, but by completing reclamation of those wells, because there are several thousand or even tens of thousands of wells that will need to be reclaimed in

the future", add Touchette. In Saskatchewan and Alberta there has been an interest in how, for conventional oil wells, workers' skills can be repurposed for geothermal projects. Moreover, many wells that need reclamation, or can be reclaimed are in the communities where workers are already residing. Meaning, there is minimized concern around displacement and many workers won't have to move out of their existing communities to find jobs. As a result, the need to repurpose skills in traditionally extraction-based locations is driving innovation toward new ways of using geothermal and other sources of renewable energy. These economic innovations are of particular importance, as the phase-out is tightly connected to SDG 8 (Decent Work & Economic Growth). The transition is not only about switching to sustainable consumption and production energy mixes, but also how Canada will repurpose the skills that were developed into less sustainable energy mixes. Lastly, in terms of regional and demographic displacement, as Canada moves away from the oil and gas sector, there are regional pockets, in Alberta, British Columbia, Saskatchewan, and Newfoundland & Labrador where resources are located, which will be impacted more by the transition if there is no repurposing of skills. Moreover, being a majority male industry, research points towards young males as the demographic group to be most displaced in the transition.

"The need to repurpose skills in traditionally extraction-based locations is driving innovation toward new ways of using geothermal and other sources of renewable energy."

RESPONSIBLE CONSUMPTION & PRODUCTION AND AGENDA 2030

SDG 12, Responsible Consumption & Production is a key aspect of the Agenda 2030 portfolio, interacting with almost every other goal. For example, zero waste pursuits create green, sustainable jobs (SDG 8); they reduce pollution which enhances our health and well-being (SDG 3), and cleans up the oceans (SDG 14), our cities (SDG 11), and forests and parks (SDG 15); it incentivizes innovation and green infrastructure (SDG 9); and affects climate change through the reduction of consumption (SDG 13). The issue of waste is not only about waste that comes after consumption, it is about the process of creating the product; reducing waste on the demand side, and responsibly managing it on the supply side. This leads to the other goals. Additionally, for disadvantaged demographics (SDG 10), these changes in the production, consumption and management of waste also incentivize education opportunities (SDG 4) in response to the growth of local jobs. In reflection, Jamie Kaminski notes:

“As a zero-waste community, when we were looking at the goals, we were seeing that yes, our values line up with these goals, but we don’t have policies around them. Now we have groups looking at the gaps in our areas [of expertise], and asking ‘how do we fill them?’”

Fossil fuel subsidies are another principal issue of responsible consumption and production which ties in closely with many, if not all the SDGs. being a propagator of GHG emissions fuelling climate change (SDG 13), phasing out fossil fuel subsidies directly impacts the accelerated adoption of clean energy (SDG 7), leads to reduced inequalities across countries resulting from damaging climate-fuelled disasters (SDG 10), and has countless more implications towards the pursuit of sustainable development.

RECOMMENDATIONS

- Implement bans across all municipalities in the country to tackle the root of the production problem, and avoid incinerators and diversion of waste towards low-income regions.
- Improve government oversight and regulation of the mining industry to prevent further dam failures causing environmental and health disasters.
- Accelerate the phase-out of fossil fuel subsidies, by both the Federal and provincial/territorial governments, going beyond the current pledge to phase-out ‘inefficient’ subsidies by 2025.
- Attach a comprehensive just transition plan to the phase-out of fossil fuel subsidies, to ensure that rural communities aren’t left behind.
- Improve transparency by publishing reports on fiscal support for fossil fuels, as this is currently a major gap in Canada’s progress.

CASE STUDY: DIESEL SUBSIDIES IN CANADA'S NORTH



Source: "Costing Energy and Fossil Fuel Subsidies in Nunavut: A Mapping Exercise", (2017).

A demonstration of the unique challenges northern Canada faces, Nunavut is an outlier due to its limited land access, causing communities to fulfill virtually all their energy needs in the form of diesel fuel.

While the Petroleum Products Division (PPD) is responsible for the purchase, import, and distribution of fuels in the territory, the Government of Nunavut, the Qulliq Power Corporation, and the Nunavut Housing Corporation are responsible for the distribution of subsidies to support diesel fuel. These entities play a key role in servicing the remote and majority Indigenous communities which require reliable heating for large portions of the year, as well as lack a grid to supply them with electricity from a large-scale system.

In collaboration with the World Wildlife Foundation (WWF), the International Institute for Sustainable Development (IISD) completed a comprehensive analysis that mapped the landscape of fossil fuel subsidies in Nunavut. In total, IISD found that from 2012 to 2016, “The Government of Nunavut [spent] on average \$60.5 million each year to subsidize the use of diesel fuel in the territory, however, using a less conservative estimate, this could “amount to a total cost of approximately \$100 million per year,” says Yanick Touchette. “[To pay,] either programs will absorb the cost directly (before point-of-sale), or consumers will have alternative social programs to reduce the cost of goods.”

As earlier sections of the report have noted, diesel is an underpriced, problematic fuel that has negative environmental and social externalities. Its use is largely a situational reason than one of efficiency. The North, and Nunavut in particular’s, high cost of electricity has caused subsidies to be prominent for a region of Canada with such a small population.

However, phasing-out subsidies completely is not the only solution. Rather than lowering the subsidies significantly over time, the government could begin shifting portions of existing funds earmarked for diesel subsidies, towards renewable energy companies implementing community-based projects in the North, and scaling initiatives over time. As battery technology further develops and intermittency remains an issue, many communities could also reduce dependency on diesel fuels by roughly 35% by using diesel-wind or diesel-solar hybrid technologies. A switch to renewable technologies through subsidy transition offers low-cost methods of new technology adoption, avoidance of spills and accompanying livelihood impacts, and greater resiliency for all communities across the territory.

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LIFE ON LAND



TARGETS



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

TARGET 15-1

CONSERVE AND RESTORE TERRESTRIAL AND FRESHWATER ECOSYSTEMS

By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

TARGET 15-5

PROTECT BIODIVERSITY AND NATURAL HABITATS

Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

TARGET 15-2

END DEFORESTATION AND RESTORE DEGRADED FORESTS

By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

TARGET 15-6

PROMOTE ACCESS TO GENETIC RESOURCES AND FAIR SHARING OF THE BENEFITS

Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed

TARGET 15-3

END DESERTIFICATION AND RESTORE DEGRADED LAND

By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

TARGET 15-7

ELIMINATE POACHING AND TRAFFICKING OF PROTECTED SPECIES

Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products

TARGET 15-4

ENSURE CONSERVATION OF MOUNTAIN ECOSYSTEMS

By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

TARGET 15-8

PREVENT INVASIVE ALIEN SPECIES ON LAND AND IN WATER ECOSYSTEMS

By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species

LIFE ON LAND

TARGET 15•9



INTEGRATE ECOSYSTEM AND BIODIVERSITY IN GOVERNMENTAL PLANNING

By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

TARGET 15•B



FINANCE AND INCENTIVIZE SUSTAINABLE FOREST MANAGEMENT

Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation

TARGET 15•A



INCREASE FINANCIAL RESOURCES TO CONSERVE AND SUSTAINABLY USE ECOSYSTEMS AND BIODIVERSITY

Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems

TARGET 15•C



COMBAT GLOBAL POACHING AND TRAFFICKING

Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities

EXPERT CONTRIBUTORS

- **Dr. Eric Taylor**, Chair of the Committee on Status of Wildlife in Canada (COSEWIC) and Professor in UBC Department of Zoology
- **Satnam Manhas**, Director of Forestry at EcoTrust Canada
- **Dr. Wynet Smith**, Faculty, Bishop's University and Senior Associate/Geographer in Residence, IISD
- **Neil Fletcher**, Wetlands Education Program Manager, BC Wildlife Federation
- **Christine Korol**, National Risk Assessment Coordinator, Forestry Stewardship Council (FSC) Canada

CROSS-CUTTING THEMES



Indigenous Communities

Satnam Manhas, Director of Forestry at Ecotrust, notes that “a loss of biodiversity is a loss of cultural diversity”, and that this has been demonstrated of Indigenous cultures around the globe. The path to reconciliation must involve empowering Indigenous communities to reclaim their culture and lands by reclaiming their natural resources and traditional ways of using them.



Gender

Meeting the targets for Life on Land while achieving a more inclusive and equitable world requires empowering more women and girls to be involved in conservation practice, scientific research, natural resource management, and public policy surrounding conservation. The stigma that spending time in the wilderness is mostly for boys can dissuade young girls from wanting to obtain experience and skills in the outdoors, which can create barriers to access later in life both for conservation job prospects and for personal recreation. Programs and policies aimed at encouraging more women and girls to participate in wilderness activities or pursue careers in STEM, natural resource management, and conservation policy can achieve this goal.



Climate Change

Climate change exacerbates the need for the precautionary principle in designated protected areas and implementing sustainable forestry practices. We do not fully understand how species and whole ecosystems will respond to increases in average temperatures and changes in climatic regimes; to avoid catastrophic biodiversity declines in the future, we must act now to foster resilience in Canada’s ecosystems.



Youth

Young people will have to suffer the consequences of today’s habitat and biodiversity loss. This will mean a degraded landscape for outdoor recreation, fewer available natural resources to support their livelihoods, and a generally poorer quality of life due to the loss of critical ecosystem services.

NATIONAL DATA

- Canada’s main ecosystem types on land are forests, wetlands, grasslands, tundra, lakes, and rivers
- Approximately half of all Canada’s monitored species have seen declining populations since 1974, and have seen an average of 82% decline between 1974 and 2014
- The number one cause of biodiversity loss in Canada is habitat degradation for development and industrial activities. Other stressors include invasive species, pollution, overharvest, and climate change.

Introduction

Non-human life- from mammals, fish, birds and insects to plants, fungi, and algae- are consistently left behind in development projects. Of the species that are monitored in Canada, approximately half have seen declining population numbers since the 1970s. Activities that are intended to support the livelihoods of communities such as logging, mining, and oil and gas development are destroying habitat at a rate that will cause unprecedented wildlife extinction in the near future without adequate action.

Sustainable Development Goal 15 aims to ensure that *Life on Land* does not get left behind on the path to a sustainable future. Progress on the targets under SDG 15 must be rigorously assessed to keep Canada accountable, especially because Canadian wildlife cannot speak for themselves.

This section highlights Canada's progress on select targets under SDG 15. In interviewing experts from a diversity of backgrounds (forestry, wetlands conservation, species at risk assessment, biological consulting), three main issues emerged that applied to all issues and ecosystem types:

1. Challenges emerging from the division of jurisdiction over natural resources and lands between the federal, provincial, territorial, and Indigenous governments;
2. Poor data on species abundance and habitat extent making it difficult to assess the risk associated with logging, prioritize restoration sites;
3. A lack of political will to adequately conserve biodiversity in Canada.

Systems of Protected Areas

Implementing large, well-enforced networks of protected areas is a government's best tool for protecting critical habitat and enforcing biodiversity loss. In line with its commitment to the UN Convention on Biological Diversity, Canada adopted its own 2020 Biodiversity Goals and Targets for Canada in 2015. Canada's "Target 1" is a commitment to 17 percent of terrestrial and inland aquatic ecosystems conserved in its network of protected areas.

As of June 2018, only approximately 10% of Canada's lands are protected; this leaves us last among the G7 countries for terrestrial and inland freshwater protected areas, behind Australia and China. This is particularly inexcusable given Canada has among the greatest total land area, and proportionally the least developed land area of these countries. As mentioned in a recent report by the Canada Parks and Wilderness Society and other conservation organizations, the government has much catch-up to do in the next two years to meet Target 1.

Historically, our system of protected areas has seen a few criticisms. First, there have been concerns that some of our National Parks are not adequately protecting wildlife from human disturbance- one example is Banff National Park, where the presence of the Trans-Canada Highway has resulted in suspected to have separated grizzly bear populations. In 2017, public consultations and a ministerial roundtable were

Approximately half of all Canada's monitored species have seen declining populations since 1974, and have seen an average of 82% decline between 1974 and 2014.

held and, after several months of delays, the Minister released a response statement in May 2018 re-iterating the focus on ecological integrity and robust scientific monitoring over tourism in Parks management.

The second criticism has been that Indigenous Peoples have been displaced, left out of the planning dialogue, and stripped of their rights to traditional hunting and other cultural practices in parks. The path thus far working towards Target 1 has aimed to identify what Reconciliation might look like in Canada's approach to protected areas. As part of the national consultation process, an Indigenous Circle of Experts (ICE) facilitated gatherings across the country to discuss how Indigenous communities can be leaders in achieving Target 1. The ICE Report highlights key messages from these gatherings, and outlines the role Indigenous Protected Conservation Areas (IP-CAs) can play in achieving Canada's 17% protected area target. Beyond this, they would elevate Indigenous rights and responsibilities to manage lands which are rightfully theirs, and respect Indigenous knowledge systems which have protected natural systems in Canada for thousands of years through holistic, ecosystem-based approaches.

“In its most recent 2018 Ramsar report, Environment and Climate Change Canada highlights the National Wetland Conservation Fund several times, despite the fact that it was discontinued partway through the initially committed funding period.”

Wetlands

Another international agreement Canada is obliged to uphold is the Ramsar Convention, which requires signatories to implement “conservation and wise use of all wetlands and their resources”. In Canada, this applies to all lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peatlands, estuaries, deltas, tidal flats, and other coastal areas. These all provide critical ecosystem services that benefit wildlife and humans alike, including carbon sequestration, sediment stabilization to prevent erosion, nutrient cycling, and critical habitat for hundreds of wildlife species nationwide.

While the government has been somewhat effective at protecting and restoring wetlands through partnerships with conservancies and private land-owners (e.g. Nature Conservancy Canada's Natural Areas Conservation Program), more must be done as an estimated 70% of wetlands in settled areas have been destroyed. In addition, the government's reporting on wetlands conservation to the Ramsar Convention Conference of Parties must not overstate its achievements. For example, in its most recent 2018 Ramsar report, Environment and Climate Change Canada highlights the National Wetland Conservation Fund several times, despite the fact that it was discontinued partway through the initially committed funding period. New funds should be established in the near future to ensure that wetland conservation and restoration projects receive adequate support.

Currently there is no nationwide system for inventory or monitoring of wetlands. This is problematic for two reasons. First, we do not know the actual extent of wetland loss in the recent past for most regions in Canada. According to Neil Fletcher from the BC Wildlife Federation Wetlands Education Program, some estimates from the 1980s state that wetland area declines at that point in time were up to 90% for regions such as the Okanagan lowlands in British Columbia. Second, challenges may arise in prioritizing restoration sites if the state of neighbouring wetlands is not known.

There also is generally no common standard of best practice for compensating for wetlands damaged or drained for development projects. Qualified professionals (biological consultants or “QPs”) are hired by

industry to provide advice on ecosystem impact mitigation such that the industry project can move forward with minimal costs or hurdles. These QPs will look to standards outlined in various pieces of legislation that are relevant to the site in question; often the standards they have to work with are rather sparse as top-down standards that are legally binding do not exist. In other words, having this work done and standardized at the federal level will incentivize QPs at the project level to communicate to the company wishing to undertake a project can expect to bear the cost of a restoration or mitigation project that will ensure the conservation of wetlands habitat and the species they house. An example of an existing document like this is the Canadian framework on classification of wetlands; while not a formal piece of legislation, having the groundwork research and defining completed makes it an easy guideline to follow for resource managers and conservation practitioners.

Finally, it should be the responsibility of the Ministry of Environment and Climate Change to ensure that there is no disagreement across Ministries where wetlands protection is concerned. For example, the Ministry of Agriculture has published reports giving guidance on the best methods to irrigate wetlands.

“The Forest Stewardship Council (FSC) certification...is the only certification that evokes the principle of Free, Prior and Informed Consent under the UN Declaration of the Rights of Indigenous Peoples.”

Forests

There is no single nation-wide standard for sustainable forestry management practices. It is up to private logging companies to complete and submit their own forestry management plans for approval by the respective province or territory before beginning logging activities. Assessing the sustainability of a particular wood product in Canada is done by third-party certification programs. In Canada, these are the Canadian Standards Association and the Sustainable Forestry Initiative, which are both endorsed by the international Programme for the Endorsement of Forest Certification (PEFC). In addition to these there is the market-based Forest Stewardship Council (FSC) certification.

According to Satnam Manhas from *EcoTrust Canada*, FSC has by far the most robust environmental and human rights standards of forestry practice. It includes the rights of forestry workers and Indigenous Peoples as warranting protection, and is the only certification that evokes the principle of *Free, Prior and Informed Consent* under the UN Declaration of the Rights of Indigenous Peoples. It also is the only certification that requires management strategies to strive to maintain the state of the environment as it naturally was, rather than in the state when the project began.

FSC Canada recently conducted its National Risk Assessment (NRA) on “controlled wood”, or non-FSC certified timber products that come from Canadian forests but get mixed with FSC timber when processed (hence receiving an “FSC mixed” label). The goal of the National Risk Assessment is to identify risks to biodiversity, Indigenous communities, in all forest regions in Canada to avoid including wood from unacceptable sources in certified “FSC mixed” products. Christine Korol of FSC Canada notes that during the NRA process, one great challenge that emerged was the lack of available data on habitat area decline in Canada. She says that it would be immensely helpful if ECCC established a federal baseline methodology for assessing the extent of habitat decline across Canada. While WWF Canada’s Living Planet Index does offer a coarse scale assessment at the biome level, this may provide accurate enough information. She notes that this has been done really well in British Columbia with their Red, Yellow and Blue list system on ecosystem conservation status.

Preventing Habitat Degradation and Biodiversity Loss, and Protecting Species At Risk

At the Federal level, Canada's main legislative instrument for preventing biodiversity loss and the extinction of threatened species (Target 15.5) is the Species at Risk Act of 2002, or SARA. Species are listed under the recommendation of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) using the best data available. Species are recommended for listing based on criteria including per cent population decline, and feasibility of population recovery. Once a species is listed, the minister must release a recovery strategy within one year, and must report on its implementation every five years.

The number one cause of biodiversity loss in Canada is habitat degradation for development and industrial activities.

WWF Canada's Living Planet Index report found that species that gained legal protections under SARA have still seen a 28% average population decline since the legislation was brought into force in 2002. For species that COSEWIC have recommended as *At Risk* but have not been formally listed by the Minister under SARA, the average population decline has been 64% since 1970, with some species experiencing declines as high as 90%.

In the legislation's short lifespan, two main challenges have arisen. First, Canada's Species at Risk protection framework had seen serious delays to listing and release of recovery plans; for instance, between 2011-2015, none of the species recommended for listing by COSEWIC were submitted to the cabinet for official protection under SARA. While the new 2015 government improved the situation by listing recommended species again, there currently remain over 100 spe-

cies in "purgatory", waiting to be listed by the minister. These delays to listing can arise due to a prolonged socioeconomic consultation process where protecting critical habitat may hinder industrial activities, or where the species itself is of economic importance.

The second issue is of jurisdiction; the automatic protection of critical habitat for terrestrial species listed under SARA only applies to federally-owned lands. Provinces may be required to submit their own recovery plans if the critical habitat is within their jurisdiction, however this forestalls the recovery process and has seen the further decline of species and habitat under our watch. Several conservation organizations and members of academia have expressed that more pressure should be placed on the provinces to protect critical habitat on their lands. This, however, would require a new legislative framework that explicitly holds provinces accountable to the federal government in these situation, which could take years to pass through parliament. In the short term, the federal government *must exercise* its right under SARA to administer an emergency order to protect critical habitat when a province fails to do so.

An example of Canada's failure to protect a species from potential extinction owing to these two hurdles is the situation with Woodland Caribou, which was listed as Threatened under SARA in 2004. This species has populations in all provinces and two territories with habitat in both federal and provincial land, making it challenging for all governments to coordinate protections.

In April of 2018, Environment and Climate Change Canada released a progress report on what has been done, and what should be done regarding the protection of critical Caribou habitat. What the report fails to mention are local case studies where emergency action has been strongly recommended by local conservation groups; a specific example is the Deep-Snow Mountain Caribou population in the Upper Clearwater Valley of British Columbia. In April of 2017, an application for an emergency order was formally submitted to the Minister, strongly urging the need to cease logging activity by CANFOR in Wells Gray Park. A response was received six months after the submis-

sion of the application ensuring that the government would continue to work with the BC government to protect and recover the species, however no on-the-ground actions have been implemented since. Meanwhile, clear-cutting and associated road-building are placing tremendous pressure on the Caribou by putting them at a closer proximity to predators. Trevor Goward of Canadians for Caribou notes that the story of the Deep-Snow Mountain Caribou is a contribution to the “Sixth Great Mass Extinction”, but is highly preventable with adequate action.

“...a loss of biodiversity is a loss of cultural diversity.”

*—Satnam Manhas,
Director of Forestry
at Ecotrust*

Financial Resources for the Conservation of Life on Land

The 2018 Federal budget committed \$1.3 billion over five years towards protecting habitat and species at risk in Canada. The adequate amount of funding to effectively implement recovery plans ideally should be “billions annually”, according to COSEWIC Chair Dr. Eric Taylor. Neil Fletcher of the BC Wildlife Federation notes that while the tax base has increased in recent years, expenditures on natural resource conservation have remained relatively stagnant, with the extra funding being allocated to other sectors such as education and health care. While funding the needs of a growing population is a key responsibility of government, it is worth noting that population growth also places tremendous stress on natural ecosystems, which must be adequately reflected in the budget.

All this considered, the pledged funds must be allocated to on-the-ground initiatives that will achieve tangible conservation outcomes. For instance, Dr. Taylor notes that funding should be prioritized for the implementation of recovery plans under SARA, as the investigative process only needs to be rigorous to identify key stressors that will allow the species to recover when reversed.

LIFE ON LAND AND AGENDA 2030

A great challenge of implementing the 2030 Agenda is that all goals should be met without compromising others. Threats to life on land often directly arise in pursuit of meeting other human needs such as access to water and food, urbanization, and access to energy. A common driver of wetland destruction is drainage for agriculture. Construction of housing and other development targets under the SDGs such as Zero Hunger and Affordable and Clean Energy that aim to improve human quality of life do not articulate that this should be done without negative consequences to wild spaces. For example, target 7.2 calls upon countries to increase the share of renewable energy in the global energy mix- while the transition to renewable energy is important and critical to slowing climate change, this target does not articulate that land use change to make room for renewable power plants may destroy natural habitats.

If life on land is diminished, consequences will also be felt across the other SDGs. Access to natural spaces directly promote physical health in humans by cleaning the air and water through natural processes. The degradation of certain natural habitats could pose risks to human health as well. For example, the destruction of wetlands and other sediment-stabilizing ecosystems could increase flood risks in certain areas. If sewage systems are impacted, this could place nearby communities at risk of waterborne disease and other health complications.

Habitat degradation and loss of biodiversity can also threaten the future use of natural resources such as timber and freshwater fish that some communities heavily depend on as their economic livelihoods. If this places real stress on economic prospects for these communities, it may catalyze migrations to urban centres, which may in turn place stress on these municipalities to update their infrastructure and construct more developments.

RECOMMENDATIONS

- Mobilize financial resources from the 2018 budget towards on-the-ground conservation initiatives such as local site restoration projects and maintaining protected lands (Targets 15A and 15B)
- Establish and publish official federal best practices for ecosystem monitoring, resource management and restoration (Targets 15.1, 15.2, 15.3, 15.4, 15.5). With both conservation and restoration of terrestrial ecosystems, having a document describing when and how offsetting of habitat degradation should be done may provide useful guidance to practitioners on the ground. In other words, having this work done and standardized at the federal level will provide easy-to-follow guidelines to biological consultants working with industry vis-a-vis good conservation practices.
- Listen to the advice of civil society and academia where emergency actions on species at risk are required. Political delays could be the difference between the survival and extinction of a population at risk.

CASE STUDY: THE GREAT BEAR RAINFOREST AGREEMENTS



Aerial view of the Hakai Protected Area within the Great Bear Rainforest. Image: Keila Stark

The Great Bear Rainforest is a conservation success story that has received global attention for the process of multi-stakeholder collaboration resulting in a strong conservation agreement.

It began with the leadership of First Nations and environmental NGOs taking a stand against industrial activities in the region, and resulted in a strong network of protected areas, high standards of sustainable forestry management where it is allowed, financing for First Nations economic diversification in the region, and

greater land-use decision making powers for First Nations who call the region home.

The region from the Discovery Islands to the Alaska border on the West Coast of British Columbia is a pristine temperate rainforest ecosystem that is home to a stunning array of culturally and ecologically significant flora and fauna, including the rare spirit bear and the keystone Pacific salmon. The region is home to a population of approximately 18 000, many of whom live in remote communities with limited access to

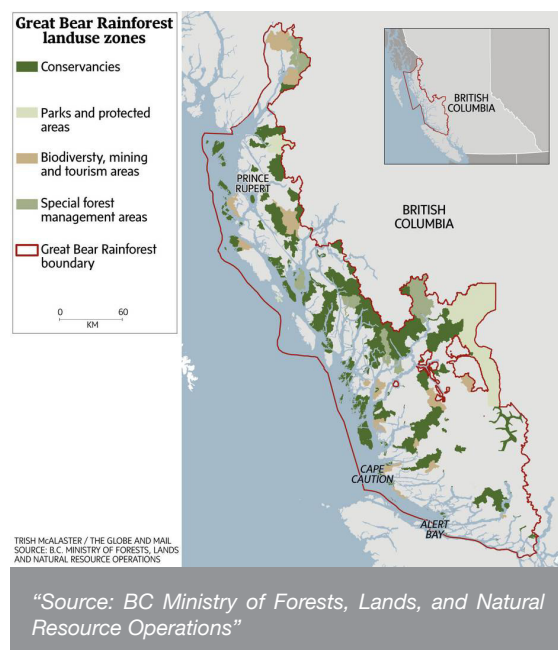
health care and amenities and are more vulnerable to poverty. It also houses the unceded territory of nearly 30 First Nations who have been stewards on the land for thousands of years.

Industrial logging and mining activities posed serious threats to the ecological and cultural integrity of the region. The Nuxalk First Nation was the first to take a stand against these activities on their land by protesting at the site of their origin story on King Island. Several more protests and court cases led by other nations followed. Environmental NGOs such as Greenpeace and the Sierra Club also became involved, and introduced campaigns targeting consumers and large companies to stop purchasing products from this ecologically sensitive region.

Eventually, the volatility in the region caused challenges for the logging sector, and the BC government moved forward on a multi-stakeholder land-use planning process in 2001. The Rainforest Solutions Project and Coast Forest Conservation Initiative were bodies set up by environmental NGOs and forestry companies respectively, and several agreements were made on both sides to suspend consumer campaigns and suspend logging activities to allow solutions to be worked out without continuing to damage the forest. Together, the RSP and CFCI came to be known as the Joint Solutions Project, which acted as an advisory body to First Nations and the BC Government regarding land-use.

Funds were procured via environmental NGOs through the federal and provincial governments as well as private donations to create the Coast Fund, which goes towards stewardship and education as well as sustainable First Nations businesses such as Ecosystem Based management programs. These facilitate the education and empowerment of local communities and younger generations to care for the Great Bear Rainforest ecosystem, and allows the First Nations in the area to take leadership of how their lands and resources are managed.

After about a decade of research and negotiations, the final agreement that was reached in 2016 stated that 85% percent of the land area in Great Bear would be protected against industrial logging, with the remaining 15% being tightly regulated using Ecosystem Based Management. This extremely high area of protection is considered a massive success by observers from around the world, however the final outcome of the dispute is only a part of what makes the Great Bear Rainforest Agreements a strong case study. Aside from meeting targets under SDG 15, the process of reaching this agreement was inclusive and collaborative. While First Nations could have been more integrated in the Joint Solutions Project brainstorming phase (as opposed to receiving their advice and deliberating on that), the outcome was a significant improvement over the status quo, and no lands were ceded in the process which is often the case with similar conservation agreements. Finally, the Great Bear Rainforest Agreements give a baseline framework to build upon as Canada works towards its 2020 commitment to 17% protected areas on land by implementing more Indigenous Protected and Conserved Areas.



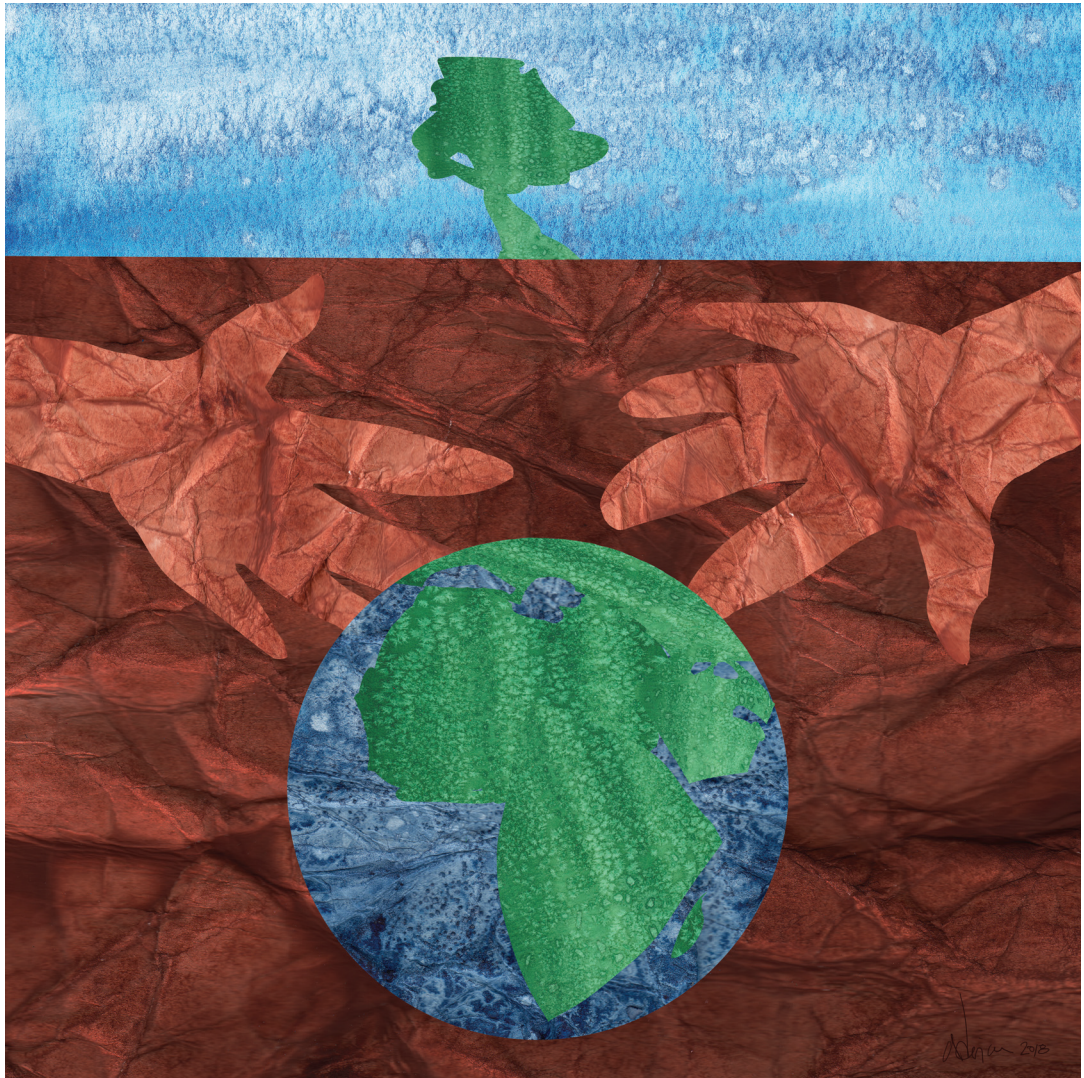
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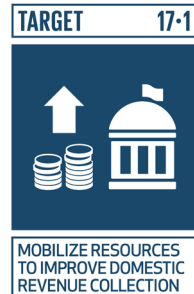
PARTNERSHIPS FOR THE GOALS



TARGETS



Strengthen the means of implementation and revitalize the global partnership for sustainable development.



Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection



Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress



Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of ODA/GNI to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries



Adopt and implement investment promotion regimes for least developed countries



Mobilize additional financial resources for developing countries from multiple sources



Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism

SECTION TITLE (REMOVE ON PGS WITH H1)

TARGET 17-7



PROMOTE SUSTAINABLE TECHNOLOGIES TO DEVELOPING COUNTRIES

Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed

TARGET 17-12



REMOVE TRADE BARRIERS FOR LEAST DEVELOPED COUNTRIES

Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access

TARGET 17-8



STRENGTHEN THE SCIENCE, TECHNOLOGY AND INNOVATION CAPACITY FOR LEAST DEVELOPED COUNTRIES

Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology

TARGET 17-13



ENHANCE GLOBAL MACROECONOMIC STABILITY

Enhance global macroeconomic stability, including through policy coordination and policy coherence

TARGET 17-9



ENHANCE SDG CAPACITY IN DEVELOPING COUNTRIES

Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation

TARGET 17-14



ENHANCE POLICY COHERENCE FOR SUSTAINABLE DEVELOPMENT

Enhance policy coherence for sustainable development

TARGET 17-10



PROMOTE A UNIVERSAL TRADING SYSTEM UNDER THE WTO

Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda

TARGET 17-15



RESPECT NATIONAL LEADERSHIP TO IMPLEMENT POLICIES FOR THE SUSTAINABLE DEVELOPMENT GOALS

Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development

TARGET 17-11



INCREASE THE EXPORTS OF DEVELOPING COUNTRIES

Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020

TARGET 17-16

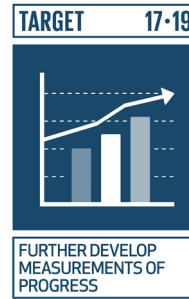


ENHANCE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries



Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships



By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries

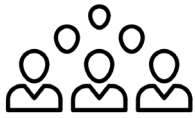


By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts

EXPERT CONTRIBUTORS

- **JP Bervoets**, Vice President of Community Foundations Canada.
- **Gavin Charles**, Policy Officer for the Canadian Council for International Co-operation.
- **Naiara Costa**, former Director and International Secretariat for the Together 2030.
- **Rosanna McGregor**, President of the Aboriginal Housing Management Association (AHMA) and Executive Director for the Cariboo Friendship Society in Williams Lake, British Columbia.
- **Rikia Saddy**, Strategic Advisor and author of We Are Canada.
- **Helen Scott**, Executive Director of Canadian Partnerships for Women and Children's Health.
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CROSS-CUTTING THEMES



Indigenous Communities

Indigenous peoples are continually left out of the international development discourse. There is a gap between international discourse, government strategies and Indigenous knowledge on climate change. Canada has made some effort to include Indigenous knowledge into planning processes through support for the Local Communities and Indigenous Peoples’ Platform within the United Nation Climate Change Conference for the first time. Canada invited several members of its Indigenous communities to participate in the platform, including representatives of the Assembly of First Nations, Inuit Tapiriit Kanatami, the Metis National Council, Native Women’s Association, and the Congress of Aboriginal Peoples.



Gender

Canada’s Feminist International Assistance Policy has situated Canada as a Human Rights based actor by taking on intersectional issues by promoting gender equality to eradicate poverty and build a more peaceful, inclusive and prosperous world. However, the notion of gender in international assistance is still binary, and neglects transgendered women.



Climate Change

In addition to the Sustainable Development Goals, Canada is a signatory to the Paris Agreement on climate change, the Sendai Framework for Disaster Risk Reduction, and the New Urban Agenda for sustainable urbanization. These three frameworks intersect across issues of climate mitigation, adaptation and resilience and most notably impact Agenda 2030 around the goals of Sustainable Cities (SDG 11) and Climate Action (SDG 13). Lack of progress on any framework will impact progress on the others and they must therefore be considered collectively.



Youth

Intergenerational dialogue and participation is a crucial aspect in accomplishing the ambitions of the 2030 Agenda. Engaging and empowering youths to participate in the SDGs now ensures that the goals will continue to progress until 2030. It also incorporates a new generation of voices and ideas that not only experiences more acutely some of the immediate impacts of many of the goals, but also contributes fresh ideas and skills for solving the problems.

Introduction

Sustainable Development Goal 17: Partnerships for the Goals encompasses and intersects with the entirety of the SDG framework. This goal is to facilitate intra-country partnerships by “[revitalizing] and [enhancing] global partnership that brings together Governments, civil society, the private sector, the United Nations system and other actors and mobilizes all available resources.” Goal 17 is also reviewed in depth at the High-Level Political Forum every year, which highlights the importance of cooperation and partnerships at a global level from actors across the private and public sector. Currently, Canada lacks a formal federal structure to oversee the implementation of the sustainable development goals and does not work across levels of government with subnational actors. Civil society organizations have led the effort to implement projects and initiatives across the country to achieve the SDGs at a grassroots level. A robust implementation strategy and monitoring framework, along with stronger partnerships at the international and subnational levels, are needed to foster the enabling environment required for both government and civil society to hit the targets associated with the SDGs.

BCCIC’s previous SDG progress report, *Where Canada Stands*, analysed Canada’s progress on the SDG 17 targets associated with Canada’s funding of international development - specifically, the government’s consultations with civil society organizations in developing new policies, and investments and spending on Overseas Development Assistance (ODA). This report will shift focus to Canada’s progress on the SDG 17 targets associated with the potential to build capacity and promote policy coherence through international cooperation and partnerships with multiple stakeholders, namely civil society and the private sector. For this report, six civil society experts in Canada and a global strategist were interviewed in regard to their coordination projects at a national and transnational level.

Data, Monitoring, and Accountability

According to Gavin Charles, Policy Officer for the Canadian Council for International Cooperation (CCIC), a key challenge in implementing the 2030 Agenda is that there is no national data that states which groups are systematically disadvantaged and are getting left behind. The process and methodology in collecting national data is not often done in a systemic or useful way that tracks and maps various societal groups. As a result, national data is not always transparent and does not capture the diverse public. Helen Scott, Executive Director of the Canadian Partnership for Women’s and Children’s Health (CanWach) agrees and explains that Statistics Canada does not disaggregate data into categories that would, otherwise, create a transparent illustration of the vulnerable groups. National data needs to be transparent about estimates and not create false representations based on small sample surveys - something that is routinely done when only 500 Canadian households are sampled to represent approximately 36 million Canadians. The extrapolation of data, says Scott, does not accurately present a picture of Canada’s demography and geography, and disaggregating data into categories or collecting more data can lead to a better job of understanding the population.

“Statistics Canada does not disaggregate data into categories that create a transparent illustration of the vulnerable groups.”

—Helen Scott, Executive Director of CanWach

Capacity Building

Canada is known as a country that embraces its cultural mosaic. It is part of the Canadian identity to embrace and welcome different cultures and peoples from all over the world. Rikia Saddy, a global strategist who works with the private and public sector, states that supporting grassroots local organizations in Canada in essence also supports global issues. With global migration, local action is directly connected to global initiatives. Sponsoring refugees or volunteering at a local soup kitchen in Toronto builds partnerships with diaspora communities that continue to engage with communities back home through a Canada's lens. Of course, it is also important for Canada to engage in partnerships with vulnerable and minority groups who are left behind domestically, as well as internationally. With successful partnerships, Canada would be able to export national perspectives and knowledge as models to be adopted globally as capacity building and advocacy strategies.

Capacity building aims to provide support for North-South, South-South, and triangular cooperation on effective implementation of the Sustainable Development Goals.¹ Rikia Saddy, a strategic advisor who works with the private and public sector, states that the traditional systemic notion of a 'poor country' and 'rich country' is changing, citing the example of billionaires in many parts of the global south, and the United Nations investigation of extreme poverty in the state of Alabama in the United States. Partnerships with the global South are still important, as those countries are often left behind in the global political sphere. Charles asserts that the goals transform how we think and assess development practice, especially by changing the way we think of who is in and out of development, who is brought ahead and who is left behind.

¹ Triangular cooperation: Southern-driven partnerships between two or more developing countries, supported by a development country(ies) or multilateral organizations), to implement development cooperation programmes and projects.

Multi-Stakeholder Partnerships

Canadian Partnerships

Despite the federal government's commitment to implementing the 2030 Agenda, there is still no governance structure with clearly defined departmental roles and responsibilities, nor an implementation strategy to meet the SDGs at the time of publication of this report. A report published by the Auditor General's Office in April 2018 showed that the Government of Canada - as represented by Employment and Social Development Canada, Environment and Climate Change Canada, Global Affairs Canada, Indigenous and Northern Affairs Canada, Status of Women Canada, and the Privy Council - is not prepared to implement the 2030 Agenda. In fact, the report showed that there was "no communication plan and no engagement strategy on how to include other levels of government and Canadians in a national dialogue on the 2030 Agenda." Furthermore, it showed that the federal government did not have an "implementation plan or system to measure, monitor, report on the progress in achieving the sustainable development goals." In the absence of federal leadership, Canadian civil society has taken the lead in developing and implementing sustainable development projects and initiatives across the country. This effort has been separate from government actions, despite efforts on behalf of civil society to contribute

"...the Government of Canada...is not prepared to implement the 2030 Agenda. There is no implementation plan or system to measure or monitor progress."

—Office of the Auditor General

to implementation strategy development, monitoring frameworks, and partner consultations. In order for Canada to catch up and be prepared to implement and monitor the SDGs, the federal government must support a much stronger and more meaningful commitment for a multi-stakeholder partnership on the SDGs. In return, civil society is able to foster an enabling environment for government to come up to speed on what it means to implement and track the SDGs on-the-ground.

Civil society organizations (CSOs) are crucial for providing a voice to advocate and unify those who are being left behind. Charles notes the importance of CSOs as intermediaries between the SDGs and citizens, and notes the opportunity for CSOs to create spaces for citizens to be engaged and empowered, and to mobilize broad public passion for sustainability and development. By organizing as a coalition network, CSOs provide an even more powerful voice that can harness the interconnected expertise of organizations across Canada into overarching initiatives and strategies that address the collective purpose of the 2030 Agenda.

“...philanthropy from foundations and the private sector [can] unlock the momentum for regional and local governments to increase capacity to generate solutions”

—JP Bervoets, Vice President of Community Foundations Canada

Community Foundations Canada, along with CCIC, the International Institute for Sustainable Development (IISD), and the British Columbia Council for International Cooperation (BCCIC), spearheaded the development of Alliance 2030, a network of organizations, institutions, and individuals from coast to coast that use the 2030 Agenda as a framework to work on issues around youth engagement, diversity and inclusion, environmental sustainability, and reconciliation between Indigenous and non-Indigenous Canadians. The 64 Canadian civil society member organizations commit to work creatively and collaboratively at a local and international level. JP Bervoets, Vice President of Community Foundations Canada, states that while SDG implementation in Canada should be driven by grassroots organizations, there still needs to be an adjusted top down approach for community members to collectively localize the SDGs. Given the funding challenges often felt by CSOs, Bervoets sees philanthropy from foundations and the private sector as a means to unlocking the momentum for regional and local governments to increase capacity to generate solutions, and to reach out to communities domestically and globally. To support such innovative approaches to multi stakeholder partnerships between the private and public sector, the federal and provincial government must create policies that will encourage philanthropic endeavours from the private sector.

The Alberta Council for Global Cooperation (ACGC) brought together representatives from across academia, civil society, different levels of government, Indigenous communities, the private sector and youth at Together 2017: Collaboration, Innovation and the Sustainable Development Goals, the first-ever multi-stakeholder symposium in Canada dedicated to the United Nations’ 2030 Agenda and the SDGs. The symposium set a foundation for how all stakeholders can work together to use the 2030 Agenda as a framework and common language, creating better organizations in a better world. Key findings from the symposium identified that though some efforts are underway to implement the 2030 Agenda, the Government of Canada has taken limited action to date and there is a need for the federal government to demonstrate greater leadership, raise awareness of the 2030 Agenda, carry out widespread, inclusive and participatory consultations with Canadians on national priorities and how Canada can best implement

the SDGs, outline national priorities, and begin building partnerships for a “whole-of-society” approach to implementation. The conversation with continue with the Together 2018 Symposium in November.

The Global Compact Network Canada (GCNC) brings together leading businesses from across Canada to build the capacity of the Canadian corporate sector in achieving the SDGs. The network is dedicated to assisting and empowering over 150 Canadian organizations by facilitating dialogue, sharing best practices, and fostering peer-to-peer learning between companies and stakeholders. With existing multi stakeholder partnerships such as these in place, there is a natural fit for the federal and provincial governments to step in to support the networks and leverage their expertise as tools to achieve the goals.

International Partnerships

Internationally, networks for CSOs and stakeholders around the world are critical for fostering partnerships. Coalitions such as Together 2030 provide a global platform and space for CSOs and other partners and stakeholders to push for action on the 2030 Agenda by providing support for capacity building initiatives. Naiara Costa, former Director and International Secretariat for the Together 2030, explains that Together 2030 has become a space for non-profit actors globally, and has especially attracted a lot of attention from CSOs from developing countries, which make up 70% of its members, where capacity and resources are often limited. In addition to support, Together 2030 also tracks the structural implementation of the Agenda by tracking whether countries are implementing the 2030 Agenda, whether they are adopting a national development action plan for the SDGs, and if they are meaningfully engaging with the civil society sector. Costa states that Together 2030 encourages organizations to move away from working in silos to facilitate cross-partnerships that can lead to innovative approaches to leaving no one behind. According to Costa, she found that groups at UN meetings would advocate for a particular goal or target in the SDG framework as the most important, rather than seeing the interconnected and indivisible nature of the framework. Global networks such as Together 2030 encourage and remind CSOs and governments that fostering a more collaborative and knowledge sharing relationship will lead to achieving the goals collectively and establishing international coherence.

In terms of the Canadian civil society experience at the global level, the long standing accomplishments of Aboriginal Housing Management Association (AHMA) and Canadian Housing Revenue Association (CHRA) has garnered international attention. In 2017, Wendy Hayhurst, Chief Executive Officer for the New South Wales Federation of Housing Association, attended the Congress meeting for CHRA in Halifax to learn more about AHMA success in providing affordable and supportive housing for Aboriginal peoples. Additionally, Rosanna McGregor, President of the AHMA and Executive Director for the Cariboo Friendship Society, will be speaking about Canada’s progress on Indigenous housing, as well as AHMA’s achievements and challenges, at the World Indigenous Housing conference. The inaugural conference

was held in 2012 in Vancouver, with the second conference to be held in Sydney, Australia in 2019. These conferences are not only spaces for knowledge sharing, but also a place in which Aboriginal housing initiatives can stay in the spotlight, nationally and internationally, to create a unity with Aboriginal people from all over the world. This is particularly important for Canada with the adoption of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) in 2016, which recognizes the individual and collective rights of Indigenous Peoples and the need for nation-to-nation partnerships when setting policy.

At the 2017 United Nations Climate Change Conference in Bonn, Germany (COP23), Canada invited several members of its Indigenous communities to participate on its official delegation and on the formalized Local Communities and Indigenous Peoples Platform, including representatives of the Assembly of First Nations, Inuit Tapiriit Kanatami, the Metis National Council, Native Women's Association, and the Congress of Aboriginal Peoples. As part of the Paris Agreement, the platform provides Indigenous peoples and local communities a more active role in shaping climate action. This new platform acknowledges Indigenous Peoples and local communities at the front line of climate change, rather than traditionally excluding them from international development initiatives. The international community is recognizing the unique perspective of Indigenous peoples on reducing emissions, adapting and building resilience against climate change.

In addition to Indigenous peoples, COP23 also welcomed youth delegations from all over the world. BCCIC sent seven youth delegates to COP23, the largest delegation of Canadian youth at the conference. However, the outcome of both delegations was that youth were not included in Canada's negotiation process or consulted in the policymaking process. Moving forward, youth delegation teams need to take part in more meaningful participation in the international arena by giving them a seat at the table in policymaking.

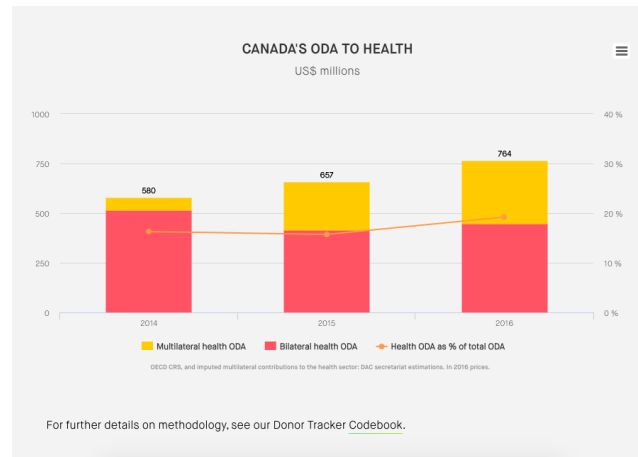
Canadian International Development Initiatives

The cross cutting nature of SDG 13 is reflected in grassroots and country-level implementation of the SDGs. During Saddy's time advising the Bill and Melinda Gates Foundation, she found that young Canadian activists are mostly interested and attracted to projects that incorporate multiple lenses such as gender and reconciliation. Interrelated global goals are an effective way to address the most vulnerable groups. In 2017, Canada announced its Feminist International Assistance Policy (FIAP) to support "gender equality and the empowerment of women and girls [as] the best way to build a more peaceful, more inclusive and more prosperous world." FIAP incorporates various interrelated goals that also meets the SDGs, including gender equality, inclusive governance, and environment and climate action. Moreover, FIAP is an historic international development assistance policy that positions Canada as a progressive and inclusive world leader. Charles commends Canada for creating a feminist and human rights based policy that tackles intersectional issues and takes into account the individual and group realities and lived experiences of local populations by tailoring delivery mechanisms to local needs. Even though FIAP is a positive step for Canada, however, Charles notes that policies and regulations, such as anti-terror legislation, impact the ability of humanitarian organizations to operate and partner in conflict zones. On the ground presence by Canada in emerging conflict and crisis is when partnerships between countries and organizations such as Canadian civil society groups are needed the most. Amending legal structures can encourage more localized partnerships and allow humanitarianism through a more people-focused approach, as opposed to a systemic approach.

Civil Society Development Initiatives

Recently, a Canadian non-profit organization, Peace-Geeks, launched a Services Advisor web application in collaboration with the United Nations High Commissioner for Refugees. This application is designed to connect refugees with humanitarian services that they need. The application has helped more than 3 million refugees in Jordan and Turkey by providing them with up-to-date information on the location of these service providers. Users are able to search for specific services, such as shelter and medicine. This application is an example of sharing technological innovations and the success of fostering partnerships at a global level to assist in humanitarian aid.

Canada’s expertise and historic funding of global health projects have made the country a leader on the issue and have provided Canada with a comparative advantage on issues such as universal healthcare and social housing. In 2016 alone, Canada was the sixth-largest donor country for global health initiatives, and the second largest donor country for nutrition in 2017. Almost 19% of Canada’s ODA was spent on global health, which is above the 8% average spent by members of the Organization for Economic Cooperation and Development’s Developmental Assistance Committee. Organizations such as CanWaCH lead efforts in the field by bringing together diverse actors from across civil society and the research and medical communities to implement programs for women and children’s health in over 1,000 regions around the world. By exporting and sharing knowledge through these networks and projects, Scott believes that they are best able to advance the CaWaCH mission of women’s and children’s health and support Canada’s guiding Feminist International Assistance Policy.



Source: Donor Tracker, "Canada's ODA to Health," Canada Global Health, n.d.

“Civil society is able to foster an enabling environment for government to come up to speed on what it means to implement and track the SDGs on-the-ground.”

PARTNERSHIPS AND AGENDA 2030

The cross-cutting themes of SDG 17 in all other goals are deliberate to ensure that most of the sustainable development goals intersect when implementing and establishing partnerships. Costa explains that the intentional overlapping of SDG 17 with many of the goals was due to the G77 countries wanting to ensure that the principle of partnerships was reinforced in the global framework and prioritized at every level of the goals.

Failing to implement this goal has implications in reinvigorating global partnerships for development. Reviewing this goal annually at the High-level Political Forum also encourages delegates and civil society organizations to collaborate and create partnerships to strengthen the means of implementation of the 2030 Agenda.

This goal sets a framework for international development agencies to increase monetary support for SDG

implementation in developing countries by increasing Overseas Development Assistance (ODA) and by initiating development projects that incorporate multiple SDG lenses. For example, addressing the issue of poverty (SDG 1) in development projects will directly address gender equality (SDG 5), hunger (SDG 2), good health and well-being (SDG 4), and peace, justice and strong institutions (SDG 16).

Partnership for the Goals fosters a space for multi-stakeholder partnerships to coordinate and provide support for all of the actors who are incorporating the 2030 Agenda into their national frameworks. This goal also incentivizes solidarity between vulnerable groups around the world to have a voice and be carriers and partners in, rather than just recipients of, development projects.

RECOMMENDATIONS

- Establish a formal federal structure to oversee the implementation of the SDGs in each department.
- Incentivize the private sector, including high networth individuals, to invest in philanthropic foundations.
- Expand multi-stakeholder relationships with the private and public sector.
- Implement a more rigorous method for data collection to disaggregate regional and demographic data to capture those who are being marginalized.
- Increase the participation of Indigenous peoples in international development efforts.

CASE STUDY: ALLIANCE 2030



Alliance 2030 partners display some SDGs at a meeting in Vancouver. Photo by Melody MacLean

Alliance 2030 is a network of organizations, institutions, and individuals who are committed to achieving all 17 Sustainable Development Goals by 2030 by working creatively and collaboratively at a local and global level.

The Alliance was created as a legacy from Canada’s 150th anniversary of Confederation and incorporates the Canada 150 priorities of youth, reconciliation, inclusion and diversity, and environment into its work. Alliance 2030 is building a searchable database of all the work that’s being done across Canada in alignment with the SDGs, amplified by storytelling through their blog and podcast series. This digital space allows member organizations to connect with others so they can share learnings, find the support they need, and stay up-to-date on the current state of the SDGs.

The concept behind the Alliance 2030 is the “power of together”, centered around the knowledge that the efforts to achieve the SDGs in Canada won’t be led by any one organization. Having a collaborative, collective and

cross-sector network will maximize the impact of civil society organizations at a national and international level.

Alliance 2030 is continuing to build out their membership and highlight the work of their members such as user-submitted stories, projects, event, and funding opportunities. The challenge now is to spread the word about the Alliance and encourage organizations from all sectors to join. The searchable database being built at www.alliance2030.ca will only succeed if Canadian organizations join the Alliance and share what they're working on with the network and the rest of Canada.

Alliance 2030 runs a National Conversation Series on Canada and the SDGs, which has engaged hundreds of organizations across sectors in person and across the country. Since the soft launch of the Alliance 2030 digital platform, more than 100 members have joined, including individuals, civil society organizations, government departments and corporations. The Alliance will also be engaging with its 2,500 Canada 150 members and inviting them to be a part of this new SDG network.

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The British Columbia Council for International Cooperation (BCCIC) is a coalition of over 140 individuals and civil society organizations that has engaged in sustainable development and environmental issues for over a quarter century.

BCCIC supports its members in becoming more effective agents of change in their sustainable development efforts by disseminating knowledge gained through collaborative projects, building relationships across sectors and networks, and developing the capacity of sustainable development practitioners. BCCIC also represents members' interests and advances civil society policy recommendations on municipal, provincial, national, and international issues.

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