COURTNEY HOWARD MD
A HEALTHY FUTURE

HEALTHY PEOPLE
HEALTHY PLANET

PLATFORM

Dr. Courtney Howard et al.

August 13 2020

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We are at a moment of crisis and instability: in the next few years we need to solve COVID-19, its economic fallout, and the climate emergency with the same set of policy measures, working from the same pool of common resources. Humanity has never faced a bigger task. It is a time of anxiety, dislocation—and opportunity.

Have you ever dreamed of saving the world? Here's your chance. I know you're tired, your kid may be quite literally climbing you like a human jungle gym as you read this, you're desperately worried about your job situation, and are grieving the loved ones that you can't visit. Be kind to yourself. It's a pandemic. We have been struggling to keep the wheels on our personal lives. But we're emerging from our cocoons—and now is the moment for crisis cooperation. We are never going to get a better chance than now to set a path for a healthy future.

Planetary Health is defined by the prestigious medical journal, the Ò ˙ › ŰÚı, as "the health of human civilization and the state of the natural systems upon which it depends."[1] I've been fortunate to develop my understanding of it in the company of both some of the world's top academics and some of its foremost practitioners--Indigenous thinkers and Elders in one of the most rapidly-warming places in the world: Canada's Arctic and Subarctic. This platform is built around optimizing it, now and into the future. Because for healthy economies and healthy people--we need a healthy planet. For a 16 minute intro to planetary health, please see my TEDX Talk here.

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[1] "Safeguarding human health in the Anthropocene ... - The Lancet." 16 Jul. 2015, thelancet.com. Accessed 11 Aug. 2020.

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What gets measured gets managed. Gross Domestic Product has been our default measure of national success, but was never designed for that purpose, and doesn't correlate well with wellbeing in high-income nations. We need a meaningful shared goal to guide our efforts as we steer through these crises--a new North Star. We propose a Wellbeing Dashboard that tracks the 4 capitals: Natural Capital, Social Capital, Financial Capital, and Human Capital, which ensure health and safety now and into the future, as well as specific indicators of wellness drawn from the work behind the Canadian Index of Wellbeing. Finance Canada will use this dashboard to complement GDP as part of our national budgeting process. It's been done in New Zealand. We can do it here. Additionally, we propose that the Parliamentary Budget Officer estimate the health and social costs and benefits of all policies in their reports, in order to make clear, for instance, the cost savings to health resulting from investments in electrifying transport.

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COVID-19 is showing us what a planetary health crisis feels like. Unfortunately, not only does a changing climate make future pandemics more likely, but it also increases the risk of asthma from wildfire smoke, traumatic evacuations, deaths from heat waves, crop failure, malnutrition, refugee crises, conflict, and more. This is why the World Health Organization calls climate change the biggest global health threat of the 21st century. To give today's children a chance to thrive, we must create a long term framework for adaptation and emissions reductions with a Canadian Climate Accountability Act that prevents policy flip-flops and ensures investment certainty. This will help us ╗╡ώ╗·╡ώ for the 2°C of warming we will see in Canada by mid-century, and ╗╡ώ ώ¯◦ the impacts we won't be able to cope with. A healthy recovery from COVID-19 that prioritizes clean electricity, electrified transport, efficient buildings, green urban environments, and sustainable healthcare can save 112,000 lives through air pollution reduction and generate 1.2 million jobs in clean energy between 2030 and 2050--while setting children up for a healthy future.

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We have entered what is likely to be a prolonged period of transition and must greet this with a commitment to the processes and institutions that increase our resilience and agility. We can strengthen our social safety net at home, and lean into the international institutions that help us get along globally: increase funding to the WHO, and support the Green Climate Fund. As we transition, we must protect human rights and ensure that the actions we take in Canada don't have harmful side-effects elsewhere in the form of offshored emissions or poor working conditions. Just as when going through rapids in a canoe--teamwork, hard work, and communication will be key.

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Indigenous peoples are the original practitioners of planetary health--studies show that areas under their management have higher biodiversity than conservation areas. We must respect the commitments we've already made to our Indigenous Peoples: align our laws with the United Declaration on the Rights of Indigenous Peoples, accelerate the implementation of the calls to action of the Truth and Reconciliation commission, and ensure Indigenous judges are appointed through the judicial system.

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Being around the table matters. There could be no better moment than a time of overlapping planetary health crises to harness the talent pool of all of humanity: an increase in female decision makers is correlated with pro-environmental decisions and decreased mortality. To power parliament with more diverse voices and make sure all the best ideas see the light of day, we can lower the voting age to 16 and reduce barriers with campaign schools and mentorship, while ensuring access to virtual tables and the virtual economy by closing the digital divide.

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Our best chance for lasting health rests on setting our sights on optimizing wellbeing, and using the most evidence-based policy measures to bring it to life. Currently, however, academic incentives do not align with policy influence, and industry is out-lobbying evidence-oriented actors. We must revisit research granting structures and treat the time of our federal decision makers and staff as the scarce public resource it is through ensuring a 1:1 ratio of facetime with nonprofit and profit-based influencers, and conducting essential pieces of public policy without closed-door meetings with industries where a conflict-of-interest exists that puts healthy outcomes at risk.

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Inequality is toxic to society--it is associated with decreased trust, worsened mental and physical health, decreased women's empowerment and child welfare, and increased criminality. We can put safety first and get back to basics by taxing wealth and multinational corporations, and put that towards funding a Universal Basic Income on a trial basis for at least the next year of the crisis.

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Since the beginning of the pandemic we have spent an extra $16 billion dollars supporting fossil fuel energy, only $2.1 billion on clean energy, and only $625 million dollars on additional federal support for childcare. These are not the actions of a species that is acting in its own best interest. We need to eliminate subsidies for fossil fuels and shift them towards a low-carbon transition, a National Seniors Strategy, and a Community Care Act, working towards universal public childcare, pharmacare, psychological care and dental care.

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The intersection of multiple crises in a rapidly-changing world demands an agile workforce able to switch gears mid-career with the help of forgiven student loans and free tuition. We can make innovation Canada's new calling card by funding outcome-oriented research, and put Canadians to work creating green shelter, reclaimed spaces and materials, responsibly-mined critical inputs, and local, sustainably-farmed food.

You want details? We've got details. Read on, for the full, gloriously nerdy version of the above.

It's a time of tremendous change. The future won't look like the past. But if we focus on clean air, clean water, good food, and each other—it can be vibrant.

In 2050, let us look back from our net zero, resilient world, and give thanks for the courageous decisions we made during the pandemic of 2020.

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Sending warmest greetings from Yellowknives Dene Territory,

S꞉ I⊢, ꞉◦¯ώ °⊢ ˙꞉λ, MD, CCFP-EM
Emergency Physician, Yellowknife. NT, Canada

National Vision of Health & Wellbeing

An explicit overarching national focus on wellbeing, now and into the future, will guide our management of three crises: Covid, Economy, and Climate.

We can do this.

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In order to set our new path, we need a shared vision of what is valuable, what is desirable, and what we are willing to work for. In the next few years we must manage COVID-19, the inequities laid bare by its economic fallout, and the climate-emergency with the same set of policy measures, working from the same pool of common resources. Humanity has never faced a bigger task.

Yet this time of anxiety and dislocation also brings opportunity. Like a complex LEGO structure sent flying by a sprinting toddler, our world has been disrupted, and now we get to put it back together--better.

It is a moment to consciously define what we consider to be success as a country. We believe that an overarching vision of a society based on optimizing health and wellbeing, where each of our decisions is designed to take us a step closer to thriving now and into the future, answers our shared desire for hope and healing.

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Use a Wellbeing Dashboard to measure progress and guide budgeting..
Ask the Parliamentary Budget Officer to include estimates of the health and social costs and benefits of all proposals in their reports.

We envision an economy where ¢╝⅜▀ R⅜•ú▀ıчŰ Ě╝⅜KꝏŰı is viewed as one number on a dashboard of outcomes that integrates elements of the 4 capitals, Natural Capital, Social Capital, Human Capital, and Financial Capital, as well as various components of physical health, mental health, financial health, equity, and political voice. The New Zealand treasury has successfully created such a dashboard, and uses it to inform budget decisions. The Canadian Index of Wellbeing includes many of these elements and can be used by Finance Canada to inform the development of a Wellbeing Dashboard.

This societal vision of wellbeing will then be brought to life through evidence-based policy measures which build strong ecological foundations and support a home for thriving people whose wellbeing is enhanced through equitable social systems, a sustainable economy, financially healthy households, and care for physical and mental health, while respecting the wellbeing of all people, and the planet we share.

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[2] "Mismeasuring Our Lives | The New Press." thenewpress.com/books/mismeasuring-our-lives. Accessed 26 Jul. 2020.
[3] "National income, 1929-1932 - FRASER (St.Louis Fed)." fraser.stlouisfed.org. Accessed 26 Jul. 2020.
[4] "Beyond green growth | Nature Sustainability." 16 Mar. 2020, nature.com/articles/s41893-020-0499-4?draft=collection. Accessed 26 Jul. 2020.

What contributes to health and wellbeing? Although hospital and clinic-based work is critical, it turns out that health systems determine only an estimated 5-25% of overall health status.[5][6][7][8] The ecological determinants of health, things like soil, water, biodiversity and the climate have direct health impacts.[5] They also underpin our ability to create the political, social, and economic systems that give rise to important social and structural determinants of health—the most critical being income, with housing, education, political voice and elements of culture also important.

[5] "A HEALTHY, PRODUCTIVE CANADA: A DETERMINANT OF ...." sencanada.ca. Accessed 11 Aug. 2020.
[6] "County Health Rankings & Roadmaps – Population Health ...." https://uwphi.pophealth.wisc.edu/chrr/. Accessed 11 Aug. 2020.
[7] "Necessary But Not Sufficient: Why Health Care Alone Cannot ...." ncbi.nlm.nih.gov/pmc/articles/PMC6827630/. Accessed 11 Aug. 2020.
[8] "The Relative Contribution of Multiple Determinants to Health ...." 21 Aug. 2014, healthaffairs.org/. Accessed 11 Aug. 2020.

When it comes to wellbeing, life evaluations conducted across nations found that four factors account for about half of explained differences in happiness: having someone to count on, generosity, having the freedom to make life choices, and absence of corruption.[6] In a recurring theme, health and income make up most of the rest of the differences. Other studies find that people are happier when spending time in green spaces than in grey urban areas,[6] and that doing good feels good--humans enjoy "prosocial" behaviours, like giving money away, more than they think they will.[6]

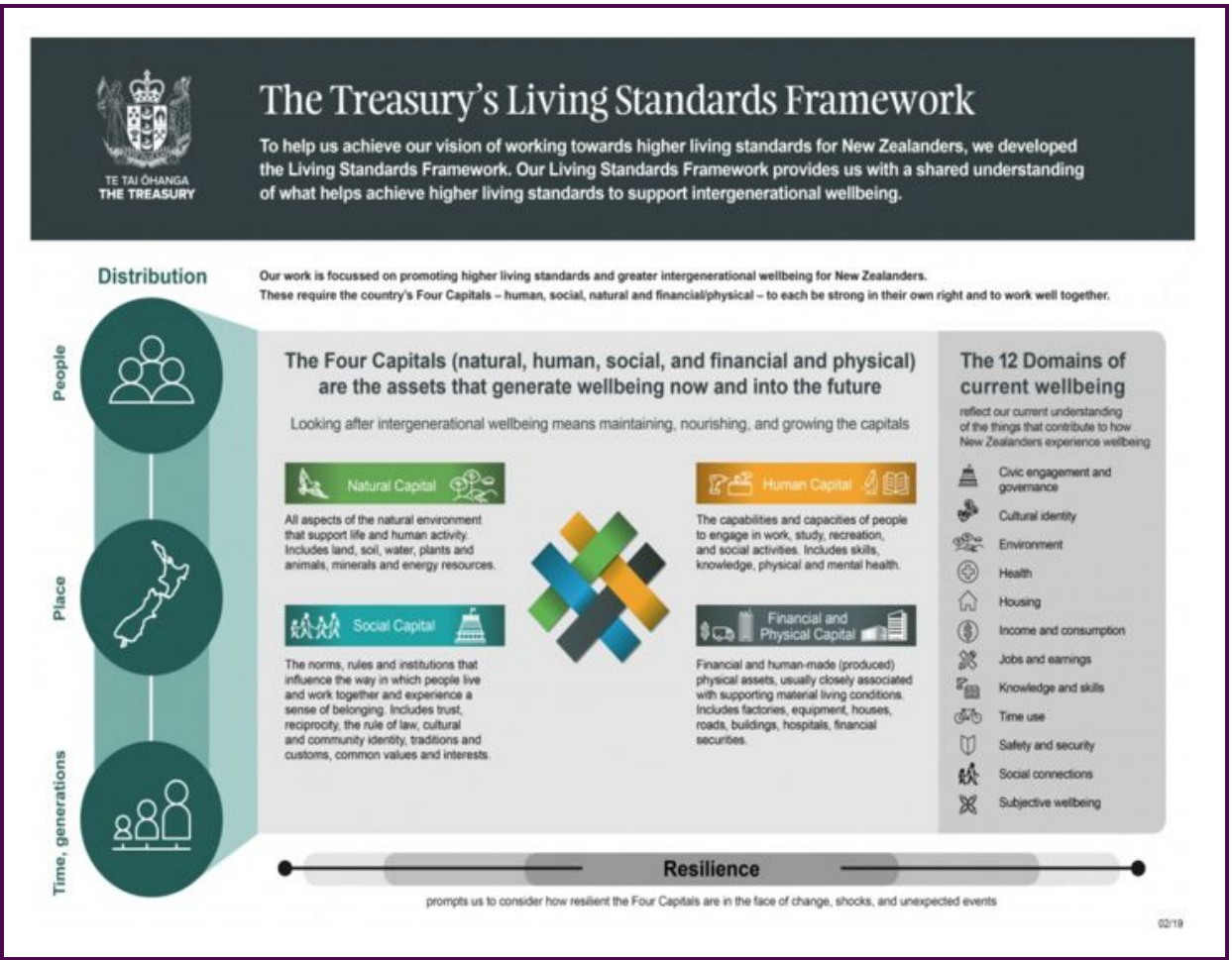
Encouragingly, most of the key elements of wellbeing and happiness don't require more stuff or increased draw on the planet's resources. They require that we invest in fair, transparent social systems, and in one another. However, sometimes our current siloed budgeting system prevents us from seeing the benefits of investing in what matters. For example, money spent on cross-Canada electrical transmission lines that allow us to transition to clean electricity will decrease air pollution and result in savings to provincial healthcare systems. To account for this we need to broaden the elements we include in our equations to include both positive and negative externalities, and make the links between siloed departments. A wellbeing oriented budgeting process is a step in the right direction.

Meanwhile, inequality proves to be the kryptonite of happiness and wellbeing. More unequal societies are associated with lower levels of trust, increased mental illness (including drug and alcohol addiction), reduced life expectancy, worsened rates of infant mortality, increased obesity, worsened children's educational performance, increased levels of births to teenagers, more homicides, and higher imprisonment rates.[7] Inequality is toxic—it's not even good for rich people. So for a healthy society we need to decrease inequality.

Feeling good can also be enhanced by doing good. There is substantial emerging evidence that humans are more naturally inclined to kindness and helpfulness than dominant cultural narratives would have us believe,[9] and that group-based work in service of a healthy climate can decrease ecological anxiety and grief.[10] This is excellent news, because to emerge from our trio of emergencies on a safe and healthy path we need crisis cooperation to overwhelm crisis capitalism.

This solidifying understanding of what constitutes a good life and a thriving community demands new metrics, because what gets measured gets managed. The New Zealand treasury has successfully created a Wellbeing Dashboard incorporating natural capital, social capital, human capital, as well as components of physical health, mental health, financial health, equity, and political voice, and uses it to inform budget decisions along with GDP. This allows GDP to continue to be taken into account, but compensates for its weaknesses. These include the fact that GDP ignores volunteer work and unpaid work within the home, counts as positive elements such as disaster clean-up, averages out inequalities that harm individual and societal health, and does not itself correlate well with wellbeing in high-income countries like Canada.[6] The Canadian Index of Wellbeing was developed using an extensive consultation process and takes into account many of the above elements.[11] It is time for the Department of FInance to incorporate the best of International and home-grown ideas into a Wellbeing Dashboard to guide our new Economy.

[9] "Humankind by Rutger Bregman | Little, Brown and Company." littlebrown.com. Accessed 10 Aug. 2020.
[10] "Ecological grief and anxiety: the start of a healthy response to ...." 1 Jul. 2020, thelancet.com. Accessed 12 Aug. 2020.
[11] "Home | Canadian Index of Wellbeing | University of Waterloo." uwaterloo.ca/canadian-index-wellbeing/. Accessed 11 Aug. 2020.



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Why have we been so obsessed with Gross Domestic Product? It has been a useful tool for economists and policymakers. It is straightforward to calculate (the total market value of all goods and services produced in a country in a year), easy to interpret (bigger is better), easy to compare between years and jurisdictions, and objective. In low- and middle- income countries it is a proportionately more important component of wellbeing. Kate Pickett and Richard Wilkinson write, "Whether we look at health, happiness or other measures of wellbeing, there is a consistent picture. In poorer countries, economic development continues to be very important for human wellbeing. But as nations join the ranks of the affluent developed countries, further rises in income count for less and less."[12] In a country like Canada, I think of it the way I think of blood pressure--I want to know what it is, if it's high, low, or moving up or down...but the thing my patient and I really care about isn't blood pressure--it's whether the treatment I gave them for their heart attack is clearing their blocked artery and saving their life. It has an impact on my main outcome of interest...but it isn't the meaningful outcome itself.

[12] "The Spirit Level | The Equality Trust." equalitytrust.org.uk/resources/the-spirit-level. Accessed 10 Aug. 2020.

What about GDP growth? Within this framework, should we aim for GDP growth? Should be agnostic about it as Kate Raworth suggests? Should we aim not to grow the economy? Some thinkers point out that even countries such as the United Kingdom, which appears to have successfully decoupled its greenhouse gas emissions from growth, have done so to a far lesser extent when non-greenhouse-gas inputs or the embodied emissions in the products it consumes are taken into account.[13] They advocate for degrowth, and abandoning GDP measurement, while cautioning that, “a monetary system based on interest-bearing debt is incompatible with a non-growing economy, meaning that transformative monetary and financial policies would be required to escape growth imperatives and allow degrowth to be pursued without generating crises of mass unemployment and inequality.” Those who advocate for a steady-state economy, defined as “a constant flow of throughput at a sustainable (low) level, with population and capital stock free to adjust to whatever size can be maintained by the constant throughput beginning with depletion and ending with pollution,” similarly urge caution, saying,

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Most likely, the middle of a pandemic is not the right moment to rebuild Canada’s monetary and financial machinery beyond what is required to facilitate our path for the next few years, but as we sail into more stable waters, these considerations can, and should, be revisited.

[13] "The Tragedy of Growth - Positive Money." positivemoney.org/publications/tragedy-of-growth/. Accessed 10 Aug. 2020.
[14] "The Tragedy of Growth - Positive Money." https://positivemoney.org/publications/tragedy-of-growth/. Accessed 12 Aug. 2020.

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The World Health Organization says that climate change is the greatest global health threat of the 21st century. Meanwhile, tackling climate change is our greatest health opportunity, because many measures that decrease greenhouse gas emissions also make us healthier right now through improvements in air pollution, activity levels, diet, access to green spaces, and more.

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Canada must establish a decarbonization framework, similar to the Climate Change Act which helped the United Kingdom reduce greenhouse gas emissions 43% between 1990 and 2018.[15][16] This Act would require policy-makers to set five year carbon budgets and impact reports and establish an expert climate advisory committee to monitor, report, and advise Parliament on emissions reduction targets, and audit progress, on a 5-yearly basis.

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Given the degree of quick-moving innovation at the city level on the climate change front, create a Ministry of Municipalities to facilitate coordination between the federal and the municipal levels of government.

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- ŏ Fund health-focused adaptation plans for every community that commit to expanding urban green space: goal 100% completion by 2025.
- ŏ Fund community-centered agriculture plans: goal 100% completion by 2025.

[15] "Analysis: Why the UK's CO2 emissions have fallen 38% since ...." 4 Feb. 2019, carbonbrief.org. Accessed 12 Aug. 2020.
[16] "What is the 2008 Climate Change Act? - Grantham Research ...." 30 Apr. 2020, lse.ac.uk. Accessed 12 Aug. 2020.

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ĝ╡ώ ώ¯₀ the change we won't be able to withstand (mitigation sprint)

- ŏ By end 2020: Submit greenhouse gas reduction goals for 2030 to the Paris Climate Agreement that are sufficient to protect the health of a child born today,[17] and that prioritize greenhouse gas reduction measures with immediate co-benefits to health in terms of decreased air pollution, increased activity levels, and a fairer society.
- ŏ Establish zero-emissions building requirements for new and existing homes in the National building code and work with provinces and territories to adopt these.
- ŏ Incentivize energy efficiency, electrification, low-carbon building materials and green roofs.
- ŏ Prioritize the construction of East-West electrical grid connection to get us to 100% clean electricity ASAP.
- ŏ Implement a national zero-emission vehicle sales mandate that ratchets up gradually to 100% of light duty sales in 2040.

[17] "The Paris agreement: charting a low-emissions path for a child...." thelancet.com Accessed 8 Aug. 2020.

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When this picture was taken, Mathias was one. In 2040, by the time he is 22, under all plausible emissions scenarios, and because Canada is warming at double the global rate, Canada will be 2°C warmer than it was at a baseline established from 1986-2005.[18] That means that regardless of our current emissions, we need to revamp our agriculture system to ensure a stable local food supply for him, plant more trees in our city centers so he has relief from coming heat waves, and install good ventilation systems in our hospitals so we can make sure Matias' own babies can be delivered into a place with clean air even during wildfire season. And, in order to get us off the high-emissions pathway we're on, which would see Canada 6.3°C warmer by 2080,[19] when he is 63, we need to emergently decrease our greenhouse gas emissions. Because no matter how hard we try to adapt, we're not sure our ecological foundation will be stable enough to support a good life for him at that level of warming.

Often, the conversation in Canada has been polarized around climate change, but the reality is that we all care tremendously about children. Mathias, in fact, lived in Fort MacMurray, and was evacuated out emergently past flames during the wildfires. His parents, newly-aware of the risks of climate change and employed in the oilpatch, spent a year and a half looking for work in a low-carbon sector before they were able to find it. They eventually did locate an on-ramp to work that allows them to put food on the table in a way that is aligned with a thriving future for Mathias. Let's build more on-ramps. So we can create a healthy future for kids of all backgrounds, across Canada, and the globe.

[18] "About This Report - Canada's Changing Climate Report." https://changingclimate.ca/CCCR2019/. Accessed 11 Aug. 2020.
[19] "About This Report - Canada's Changing Climate Report." https://changingclimate.ca/CCCR2019/. Accessed 11 Aug. 2020.

This world is our nest, our home. We need it to be stable, to nurture our society, our economy, our logistical supply chains, our healthcare systems, and ourselves. Where I live, in Canada's subarctic, we're already 2.5°C warmer than when an 80 year old Elder was born. North of here, in Inuvik, temperatures are 3°C warmer. As ice and permafrost soften, the ecological foundation of society is quite literally melting away. We are at the forefront of these changes: let these impacts spur us to shore up our nest against further destabilization. Two sprints of work must begin immediately to strengthen it: we need to ╗ɬώ╗ ˙ɬώ it for the climate-related change we can't now avoid, and ╗ɬώ ώ¯ο the change we won't be able to weather safely. The coronavirus pandemic, driven as it is by a virus that jumped from animals to humans, is both the biggest wake-up call we've ever had that for healthy people and a healthy economy we need to pay deep attention to our interface with the natural world, and the best evidence that by working together we can mount an effective response to a planetary crisis. A â˙ıڸ̈ú ıẅ•˙ıú ıм˙›Щú report estimates that global greenhouse gas emissions decreased by 17% in the first few months of 2020 [20]as compared with the previous year, with just under half of this from reductions in surface transport.

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[20] "Temporary reduction in daily global CO 2 emissions during ...." 19 May. 2020, nature.com/articles/s41558-020-0797-x. Accessed 8 Aug. 2020.
[21] "The 2019 report of The Lancet Countdown on health and ...." 13 Nov. 2019, thelancet.com. Accessed 8 Aug. 2020.