

1.5 TO STAY ALIVE: HOW WE FIND HOPE AND HONESTY IN DANGEROUS TIMES

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Thank you Dean, thank you Jane, thank you all for being here, and to the First Nation on whose territory we find ourselves tonight, the Wolastoqiyik, I say woliwon, or thank you, for your generosity and hospitality.

I'm really enormously honoured to be invited by my *alma mater* – in the sense that I was so very honoured to have received an honorary doctorate from the University of New Brunswick – to be invited here by the Law Faculty to speak on a topic which is on my mind pretty much constantly. That is, what we are facing in terms of the climate crisis, climate emergency, climate break down. We are still quite honestly searching for the right language.

I titled this talk “1.5 to Stay Alive” many, many months ago, but we have just seen the IPCC report come out, it was October 8th, 2018 that the Intergovernmental Panel on Climate Change issued a special report,¹ special in the sense that they have been asked to prepare it by the negotiations and the negotiators in Paris in 2015. We had negotiated a Treaty which set 1.5 degrees Celcius as the global average temperature increase above which we must not go.²

So, the Paris Agreement says that the world's nations, working together, will reduce greenhouse gases to the level to ensure that we don't go above 1.5. This is a terrible target. This is how long it takes to just say the minimum target: we will not go above 1.5 degrees Celcius global average temperature increase above the global average temperature that existed before the Industrial Revolution. If you say anything less than that, you haven't explained your target, and the Paris Agreement also said *or* as far below 2 degrees as possible. And at that negotiation, the world governments also asked the scientific advisory body to all governments (that is what it is – the Intergovernmental Panel on Climate Change, created in 1988 to advise policy makers about the evidence as it came forward) what we needed to do to avoid climate disaster.

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¹ Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C: an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* (2018), online: <ipcc.ch/sr15/>.

² *Paris Agreement, being an Annex to the Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015 — Addendum Part two: Action taken by the Conference of the Parties at its twenty-first session*, 29 January 2016, Dec 1/CP.21, CP, 21st Sess, UN Doc FCCC/CP/2015/10/Add.1, online (pdf): <unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf>.

The phrase “1.5 to Stay Alive” came to me when I was looking at the IPCC Report, because that is literally what they told us. But the first time I heard that phrase was in 2009 during the negotiations that failed – the negotiations in Copenhagen where we had gathered to negotiate the successor agreement to Kyoto.³

(By the way, Kyoto didn’t fail. Most of the governments that took on commitments under Kyoto achieved their targets or exceeded them. It is only in Canada and the US that Kyoto is routinely dismissed as though it wasn’t successful. But most nations kept their commitments under Kyoto.)

In 2009 we were gathered in Copenhagen to negotiate what would follow because Kyoto’s targets ended in 2012, and we obviously have to continue to reduce greenhouse gases. Kyoto was referred to as a “down payment” on future action.

Now, going way back to the first United Nations conference on the environment. To get a sense of the North-South dynamic, I want to take a big broad sweep of this in terms of how the world negotiates when we face global problems. The first United Nations Conference on the Human Environment was away back in Sweden, in Stockholm in 1972. A Canadian (Maurice Strong) was the Secretary General of the Conference. But Stockholm is largely remembered for the fact that, in 1972, it was very hard to convince developing nations that a concern for the environment was anything other than a rich country’s issue and not meaningful to them. Most of the global south boycotted the Stockholm 1972 Conference. Indira Gandhi was one of the only leaders of a developing country to attend and there was a very clear North-South divide about “we are struggling to feed our people; we are not willing to worry about your problem.”

Now, by 1992 at the Earth Summit,⁴ there was a very marked change. Number one, it was a conference on the environment *and* development. That is an important aspect; it was framed around sustainable development goals and the environment. A country that had boycotted 20 years earlier hosted, so Brazil was hosting a gathering of nations to talk about the environment and development and these twin threats. It was at Rio, in June 1992, that the fundamental legal document – the international treaty within which all our other actions have been framed – was signed.⁵

But there was also something called the Rio Bargain, and it was very quickly violated. The Rio Bargain was this: all the legally binding treaties were negotiated around environmental issues – a treaty to protect global biodiversity, a treaty to respond to the climate crisis. And then there was a large parcel of non-binding promises by the rich countries to, for instance, “end poverty”. We had the recommitment of nations from the donor countries to the 0.7% target. (This was

³ The 2009 United Nations Climate Change Conference in Copenhagen, Denmark was held in December 2009.

⁴ The United Nations Conference on Environment and Development (“Earth Summit”) was held in Rio de Janeiro, Brazil in June 1992.

⁵ *United Nations Framework Convention on Climate Change*, 14 June 1992, 1771 UNTS 107 (entered into force 21 March 1994).

developed by the way, by Lester B. Pearson, but not in his role as our former Prime Minister. He was on a UN Commission that decided the best way to actually end global poverty would be if the wealthy nations would take just not even 1%, but 0.7% of their GDP and provide it in development assistance.)

So that was the Rio Bargain that buttressed the fact that every nation on earth came and signed onto the *UN Framework Convention on Climate Change*. There was that sort of arc of global negotiations, that now we had a deal. Developing countries were on board for climate targets just as they had been on board for protecting our ozone layer in the 1987 Montreal protocol, because we recognized that there was a pact to be made, that the issues for North and South were different.

Now all that changed for me in a moment in Copenhagen in 2009 when I first heard the chant “1.5 to Stay Alive.” The negotiations in Copenhagen were typified by bad faith bargaining – back room elite gatherings that excluded the world’s developing countries – and also a breakdown of the faith that had developed over many years in a UN system of consensus negotiations in a multilateral context, in front of everybody. So, in Copenhagen you had the big countries go behind closed doors and say, “Here is the deal” and bring the text back. This was a bad situation. And the text said, “2 degrees will be good. 2 degrees global average temperature increase is what we will strive to avoid.”

(That is one of the problems with setting targets that are limits that you *don't* want to hit. They suddenly become targets that people seem to think, “Okay, we can go there.” No, we want to avoid them.)

But in any case, in Copenhagen, suddenly every nation from the African continent stood up and walked out, joined by every nation that qualified as a low-lying island state. They stood up and marched out and they were all chanting, “1.5 to Stay Alive,” and they literally meant it. For a low-lying island state to stay above the water-line, global average temperature increase could not go above 1.5 degrees Celsius. They knew this, they chanted it, joined by African nations that recognized that development isn't possible when you go through long periods of drought, followed by a year's rainfall in a month that washes away all the soil and any prospect of making progress in terms of development.

And in that moment, I realized the situation had completely turned on its head. We were no longer hearing industrialized countries trying to get developing countries interested in an agenda about an environmental issue. We were hearing clearly, “This is an existential threat to us. If you don't hold at 1.5 degrees, we will not survive as nations.” And if that walk-out, that very dramatic (it doesn't happen much in UN negotiations with whole blocks of countries; I had never seen it anywhere before) standing up and walking out together, the alliance that formed in that moment was low-lying island states, the developing nations, the poorest of the poor of Africa joined and supported their allies, and the youth of the world. Every young person, every youth-led NGO stood up and walked out with them, chanting “1.5 to Stay Alive.” It was a dramatic about-face in what had been a North-South schism. We now saw the youth of the industrialized world clearly aligned with a future that said to young

people, “1.5 to Stay Alive” – not as nation-states, but as individuals recognizing what their future would hold if we allowed global temperature increases to just continue to grow.

Now generationally, I am seeing a lot of this happen in Canada too, and it is an interesting thing to observe. As some of you know, as a member of the Law Society of Upper Canada⁶ and the Nova Scotia Barristers’ Society, you are not supposed to get arrested. I do appreciate that the Nova Scotia Barristers’ Society recently absolved the complaint that said I had violated my oath. They actually found that in some cases people who had been practicing law had an obligation to face arrest to change a law that was wrong. I was very grateful to them.

But in any case, I chose arrest in the case of the Kinder Morgan pipeline because I had made a commitment to First Nations’ leadership in BC that, if they were going to face arrest, I would stand in solidarity with them. I only mention this because being in court in Vancouver led me to become a witness to a number of very interesting things that were/are developing in our world. The prosecutor for the BC government (I wasn’t actually in the court room when this was said) said to the judge, “We have got to increase the sentences because we are now facing a group of people who clearly have nothing to lose. We are facing all of these seniors.” Oh yes, Grandpa is at the barricades and nothing is turning us away because we are committed to saving the lives of our grandchildren. Here is where I see something really happening around “1.5 to Stay Alive.” My generation, the elders, alive with the youth who are willing to say, “I am not going to go to school today, because why am I going to school learning about skills that I will use in a future career that I can’t have unless people act very, very soon.”

These are all very new dynamics in the nature of the human family. We can no longer be divided between the rich and the poor, can’t be divided between the old and the young. We are now divided between those who understand burning fossil fuels is threatening our future – or our existence – and those who want to pretend we have a lot more time to burn fossil fuels. Essentially, everyone understands that the end of fossil fuels is inevitable. “Big Oil” understands it, they just want a little bit more time. Every day that they take from us, they steal from our children. So, the dynamic we face now is youth leadership and seniors prepared. The same dynamic that the BC Court noted in Vancouver over the Kinder Morgan arrests was witnessed on the bridges of London following the Report of the IPCC, when a new movement called “#extinctionrebellion” decided to have as many people as possible arrested on the bridges of London. There was one gentleman who was in his 80s and was arrested 4 times in one week, because he said, “What else can I do? I am thinking about my grandchildren.”

So, we come to “1.5 to Stay Alive.” Who else is saying it, besides low-lying island states, the poorest of the poor, our children, our elders? We are also hearing it from our scientists. Scientists are saying with increasing panic, and scientists aren't prone to panic, and they are also not inherently good communicators. But the IPCC

⁶ The Law Society of Upper Canada changed its name to the Law Society of Ontario in 2018.

tried to find its theme as clearly as it could. Now this is an inter-governmental panel, which means the consensus report of the scientists had to be vetted and approved by scientists appointed by the US government and the Saudi government. And still the Report came out saying what it said, which you can take to mean that the news is a bit worse than what the IPCC said. But the scientists are telling us that if we go above 1.5 degrees Celsius, you run too high a risk of unleashing something we cannot stop.

There is a point that used to be described to me in theoretical terms, and I used to talk to scientists who said, “Oh well, that is a hypothetical possibility, but we are nowhere near that.” But unfortunately, through years and decades of procrastination on this issue, we are actually near the things that used to be described as hypothetical possibilities we don’t need to consider. It was Dr. Digby McLaren, who was the president of the Royal Society of Canada (and for those of you who are not scientists and don’t know who they are, they are not monarchists, they are Canada’s best scientists and they are Fellows of the Royal Society). Dr. McLaren, who had an illustrious career in the Geological Survey of Canada, was the first person who tried to tell me about what he called “runaway global warming”. He said it was one of the reasons he didn’t believe there was such a thing as “sustainable development.” He said that we actually have to move much faster, we have to be much clearer, we cannot keep burning fossil fuels, because, as we do, we create conditions which start triggering events with positive feedback loops.

For instance, when 400 forest fires burned this summer in the British Columbia Interior, every single one released the carbon that had been sequestered through photosynthesis throughout the life of that forest. That is a pulse of warming gases to create warmer, drier conditions to create more forest fires, just as the warmer water that came up from the bottom of the Pacific began to melt the Arctic. This is one of the reasons the IPCC Reports tend to underestimate the threat: they didn’t really factor in positive feedback loops.

So, the warmer water was melting Arctic ice. The positive feedback loop is that the ice in our Arctic creates something called the Albedo Effect, but it is essentially global fashion advice. Why do we wear white in summer? It keeps us cooler because it bounces away the warmth of the sun. The ice cap creates, through its whiteness ... the sun’s rays and the heat of the sun are largely bounced back to space when they hit ice, but when the ice has melted and dark ocean water has opened up, the sun’s radiated heat is sucked into the ocean, thus heating the ice more, warming the ocean faster, and creating a positive feedback loop to heat the water more and melt the ice faster.

The positive feedback loop that scares me the most is the melting permafrost. Permafrost, as you can imagine, is that ground that is permanently frozen. But what was it before it froze? It was largely muskeg; it was swampy stuff. So, what we have frozen in permafrost is a lot of methane gas, and as the permafrost melts, it releases methane, further speeding up the heating process with the risk of melting more permafrost. Scientists have calculated that if we were to lose all of the earth’s permafrost – if we let it melt – it will release 4 times more greenhouse gases than everything released by humanity since the beginning of the Industrial Revolution. So

it is super important to keep the arctic as cold as possible to stop most of that ... from melting. As we lose permafrost it has an immediate effect in Inuit communities: it means the land subsides, houses fall over. It creates very dangerous conditions, and we can't risk allowing the world's permafrost to melt.

Now those are just some of the things that scientists understand about positive feedback loops. Those are some of the reasons that I have been focused on climate change, from when I first learned about it in 1986 from scientists at Environment Canada when I worked in the Minister of Environment's office. But now we have very clear advice from the world's scientists and the report that was written as advice to the policy makers meeting once again at COP. We had COP 21 in Paris; this year it was COP 24 in Katowice, Poland. It was on the agenda of COP 24 to review the IPCC Report, the special report that this very body had asked the IPCC to prepare: what is the difference between 1.5 and 2 degrees, and can we still hold to 1.5?

What the scientists told us, which is really good news, is we can hold to 1.5 degrees. The part that is discomfoting is, "And, oh yes, if we fail to do that and go to 2.0, we are looking at the potential for the collapse of human civilization or worse." Now in that context, I have to say I really didn't think that we would have a conference of the parties within 6 weeks of the IPCC Report that would manage to avoid dealing with it.

The President of Fiji was the outgoing president of the COP from our last convention. (COP 23 was held in Bonn, Germany, but it was actually the first Pacific COP, because Fiji doesn't have the infrastructure to host a global climate negotiation. So, the President of Fiji remained very involved in these negotiations.) He said, "Can we be so craven and selfish and indifferent that we are not going to act in response to this report?" I guess by their silence, the rest of the world said, "Yes". Only Fiji and the Marshall Islands approved their targets at COP 24.

One of the other people who spoke to the delegates at COP 24 was a voice for all the youth all around the world (not someone who could have spoken in Copenhagen, but 15 years old in December): a schoolgirl from Stockholm. Greta Thunberg has extraordinary clarity of her voice, and she is honest. She has the kind of honesty that takes no prisoners. She looked at her audience, the collective countries of the world with their negotiating teams, and essentially said, "I am not here to ask you to do something. You have been asked before and done nothing. I don't expect you to do anything. You don't even have the courage to tell it like it is, even that burden you leave to your children." This is a take no prisoners speech.

When she was speaking most recently in Davos to the world economic forum – by the way, she travels to all of these engagements by train – she said to the delegates, "It is in this point in the speech that adults usually ask us to find hope and to show youth how to be hopeful." And she said, "I don't want your hope, I don't want you to be hopeful, I want you to panic. I want you to panic and then to act. I want you to act as if your house is on fire, because it is."

So here we are in 2019, in my country that I love, that was in 1988 in the lead in acting for climate action. We hosted the first global conference on climate science;

we helped host and support the first global climate target. I am not going to bore you with the number of targets that Canada said we would try to hit and never tried to hit. They pile up behind us and they give – strangely enough, perversely enough – they allow people that I know now in places of power in Ottawa to say, “Targets don't matter because we don't hit them.”

I know the target to save the ozone layer worked. We stuck to it, we hit it; and, as a result, the world is now not debating what to do about the loss of the ozone layer and the UV rays reaching crops and frying them and killing people with excess cancers. We now celebrate, which we should, that the ozone layer is repairing itself. Targets work if you have the political will to meet them: if you pay attention, if you set a target that is consistent with what must be done, and then you roll up your sleeves and you hit it.

That is how we fought acid rain in this country, and succeeded in cutting by 50% – a target – 50% of the sulfur dioxide from sources across eastern Canada were cut. The ozone layer, we first negotiated an agreement in Montreal in 1987, that the industrialized countries would reduce – and this is back to the North-South divide and trying to figure out what got called in Montreal and again in Kyoto (and is still a big issue in UN negotiations), “common but differentiated responsibilities.” That is why in Montreal, to protect the ozone layer we could say, “The industrialized world must reduce by 50% its emissions for perfluorocarbons and ozone depleting substances. Developing countries can sign on to the protocol and increase their emissions by 15%.” At that time, the argument from developing countries was “We need to preserve food so that people don't get sick from rotten food. It is you in the industrialized world who created this problem of ozone depletion. You find the alternatives and then we will use them.” That was the bargain in Montreal, and it worked; but we set targets and we hit them, and we were guided by the science. It is only on the issue of climate change that world resolve has been so desperately weakened by deliberate campaigns of disinformation by Big Oil. It is very clear that that is what happened.

I remember former Secretary General to the Brundtland Commission, Jim MacNeill, a brilliant Canadian and global diplomat, said at the end of the Rio summit that, “The *UN Framework Convention on Climate Change* is too weak.” And the other thing that just happened is the Carbon Club just formed. So negotiations in 1986 - 1992 to get a *UN Framework Convention on Climate Change* took place in a context where we weren't facing large organized propaganda campaigns against taking action to save ourselves and avoid climate change altogether. If we had acted in 1992 on the *Framework Convention on Climate Change*, if we hit the target Canada could set, if we led the world to move away from fossil fuels as quickly as possible, we could have prevented the things that are now no longer preventable. We are now locked in, because we are now at 1 degree Celsius global average temperature above what it was before the Industrial Revolution, and we are on track, for sure, to hit 1.5 degrees and it will take something of a miracle to hold it at 1.5. Collectively, the current collection of targets of all the countries on earth, if followed and executed on time by every country on earth, the collection of governmental promises, if delivered, take us to somewhere between 1.5 and 3 degrees Celsius.

So that is why the IPCC was quite forthright. We need to pay attention, this is a wakeup call. We need to reduce global emissions of greenhouse gases by 45% below 2010 levels, and we need to make sure it is done by 2030. That does not mean we have 12 years. That means we have no time at all, because the scale of work that will be required to achieve a 45% reduction in greenhouse gases globally, that scale of work described by IPCC scientists as “transformative” ... [is] unlike anything we have ever seen human society accomplish. In that context, we come to the question: finding hope and honesty in dangerous times.

We surely cannot survive if we do not embrace the reality that we will – we have to, at all levels of government, in all aspects of society, in all countries and all ages – have to decide that we have this one chance. We have got a chance to ensure that we stop relying on fossil fuels as quickly as possible, that we replant forests (we have got to replant trees everywhere), that we have got to do everything we can for sequestration, and that we transform our economy from one that has been dependent on fossil fuels to something else. Now there is lots of good news in that the “something else’s” we need are all invented. We don’t have to wish and hope, “Oh, if only we had an alternative to fossil fuels.” Everywhere you look in our society, with the exception of jet fuel for our airlines, there is a replacement for fossil fuels, there are replacements in providing electricity.

A huge step we must take is to decarbonize electricity. Around the world, a lot of countries are doing it. Other countries are already banning the internal combustion engine, because the alternative to the cars we have been driving around for decades is cars that you plug in at night – or during the day. My favourite notion of what my future looks like is – I plug in my car now, but it is a Prius Prime, and I don’t have enough of a battery to charge for the work I have to do when I am home in BC, so I fall back on the hybrid part of my car’s engine when I run out of battery. But I have a friend just up the Island from me who plugs his car into his house and 100% of the car driving needs he has are met with solar panels on the roof of his house. This is not science fiction stuff, as one of my friends, Megan Mitton,⁷ was saying to me the other day. This isn’t even trying to remember *The Jetsons*; this is all stuff we have already invented, and we can put to use. So, it is very important to be hopeful of our message.

But, back to Greta Thunberg. She said, “I don’t want to hear from you about endless green economic growth. If that happy talk worked, we would not be in the situation we are in now.” So somehow, we have to figure out how to be honest about the threat and hopeful in inspiring each other every single day that we actually have the tools we need to avoid the most catastrophic impacts of climate change. We know we can; we have been told by the IPCC that we can.

And yet here we are in Canada in 2019. Out of all the targets I mentioned that we have stacked up and missed, we are now clinging to the one that was the weakest one ever selected: Stephen Harper’s third. Stephen harper weakened our climate target three times. We are now still under the regime of Stephen Harper’s third and weakest

⁷ Member of the Legislative Assembly of New Brunswick (Memramcook-Tantramar).

target: 30% below 2005 levels by 2030. It hasn't been improved a single ton since the Liberals took office. I don't know that they didn't intend to ... but I can't make excuses for people anymore because this is a climate emergency.

So, we need, as a country, and this is where I get excited about potential, COP 25. (God help us, 25 years of climate conferences after the negotiation of the *Framework Convention on Climate Change*. I brought my baby with me to the summit. She couldn't walk yet. She has been working on her PhD now, she has made a heck of a lot of more progress than the world's governments ever did since we met in Rio in 1992.) We have to stop allowing governments to continually debate the irrelevant. Now I am sorry to say that the main content of Canadian media and political culture discussion around climate is to talk endlessly about carbon taxes, as if the possibility of doing one little thing is more frightening than letting things get worse.

Carbon taxes are a very small piece, and not necessarily, if you want to, we can go to carbon rationing – I don't think Andrew Scheer would like that; I don't think Blaine Higgs would like that – it is just to say that we have a lot more choices that we could go to and a lot more policies that we could raise, but I would rather go for the ones that create the most jobs by changing our economy and ensuring that we have things like efficient rail service, ensuring that we have things like an electricity grid fueled by nothing but renewable energy, and ensuring that our businesses, institutional, residential, commercial are all operating in a way that means they generate their own power instead of wasting energy by heating the outdoors in the winter and cooling the outdoors in the summer. This is all possible.

So, finding honestly in dangerous times is hard enough because nobody in the political world – I guess except me – nobody that I have debated in Parliament on this basis wants to face these facts. Some of them don't understand the facts at all and in the emergency debate on climate change – actually it was a different debate on carbon tax – I won't say what party he was from, I will leave it to your imagination – said, “You people in BC have had a carbon tax for years, it didn't stop your forest fires.”

So we do need some basic education and that education may happen in Canada during an election campaign, but what I wanted to share with you today is this: we can get through this, we can hold our babies at night and know they have a secure future, whether they are our babies, or our grand babies or our nieces or our nephews. What kind of generation would condemn their children, their babies, to an unlivable world within their lifetime? I am not exaggerating, it is not hyperbole, this is what we are facing: an unlivable world with a lifespan of our children.

“I am not prepared...”, as Professor Thomas Homer Dixon said as he was speaking to the Green Party Convention. He spoke of his own children and he said, “I am not prepared to tell them that we are a failed species.” None of us should be prepared to walk away from this challenge. It will take courage, it will take hard work, it will take throwing off the notion that we are still in a status quo world. The world has changed and we must respond as people, as *homo sapiens*, as grown-ups; we must respond without partisanship, without rancour. We must reach out and love absolutely

everyone we can as much as we can all the time and say, “Come with me. We have got solar panels to put on our roofs, we have got some trees to plant, and we have some Big Oil to shut down.”

Thank you.