



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

Standing Committee on Environment and Sustainable Development

ENVI • NUMBER 125 • 1st SESSION • 42nd PARLIAMENT

EVIDENCE

Thursday, October 18, 2018

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Chair

Mr. John Aldag

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• (1530)

[English]

The Chair (Mr. John Aldag (Cloverdale—Langley City, Lib.)): Welcome, everybody, to our second session on our study related to the pan-Canadian framework on climate change with an emphasis on international leadership.

We have two presenters today, two organizations presenting. On video conference we have Mr. Balasubramanian.

We'll start with you. I'll give you 10 minutes to present. We like to go with our video conference presenters first, just because sometimes the technology can be a bit finicky. We'll hear from you and then we'll go to our panel in person.

We welcome both of you. Again, I'll give you 10 minutes.

Then we'll get into our questions. We'll go back and forth, for about six minutes each. I'll let you know when there's one minute left and when your time is up. Normally, for a panel we'll spend an hour, so we'll go through and see where we're at with the questions in an hour. At that point, if there's agreement from the committee, we can move to our closed session, which will be in camera, to discuss some committee business. Then we'll see where the rest of the meeting goes. That's kind of the flow for this afternoon.

With that, let's get started with our first witness by video conference.

If you'd like to start your introductory comments for EcoAdvisors, sir, you have 10 minutes.

Mr. Hari Balasubramanian (Managing Partner, EcoAdvisors): That's wonderful. Thank you so much.

At EcoAdvisors, we look at the financial opportunities of sustainability and a zero-carbon future. That's the business of what we do. We're a consulting business. It's a great opportunity for us to speak here because we tend to focus our attention globally, so it's nice to be able to do more work and think about this issue domestically.

First of all, I'd like to say that we do commend the country on the pan-Canadian framework, but in order to take leadership on the international stage, we all know that frameworks are only a first step and the details of implementing a framework are where we really need to go. It's a particularly exciting time for climate change generally and for the financial opportunities in particular. In the last

eight weeks, I've had the opportunity to attend several meetings and see several reports that have come out, on both the bad and the good.

I'll start with the bad side.

Last Monday, we saw the IPCC's special report, which had a couple of pretty astounding things in it. The first is that the problem is probably worse than we thought. The second is that it's probably going to happen sooner than we thought. The threshold needs to be lower than we thought or we're going to lose critical ecosystems, like coral reefs around the world. Also, a zero-carbon future isn't the only answer or the limit to the answer. We also have to have CDR, or carbon dioxide removal, solutions.

We also learned that coordination needs to be thorough and imminent across sectors, in order to induce the behaviour change for zero-carbon and net-positive-carbon futures.

I'll stop the negative there, but on the positive side, there are a couple of meetings that I want to highlight.

The first was in San Francisco, where Governor Brown held the Global Climate Action Summit. I've been to several of these global meetings before, where commitments are made, like the UNFCCC, where countries come together and the private sector, for example, the Clinton Global Initiative and others, make commitments. However, the GCAS this year was different to me, for a couple of reasons. A combination of sectors came together to make what seemed to be real commitments, with targets, timelines and funding allocated to them, like Governor Brown committing to zero-carbon electrification for California by 2045 and private sector companies coming to zero-carbon future commitments across entire operations, across transportation networks and across supply chains, in real terms by 2030. These aren't companies on the fringe, or sustainable companies or B corps. These are Fortune 100 companies that are leading the world, and these aren't decisions made purely from an environmental perspective. These are decisions made from an operational and financial perspective. I'll get into some examples of our work there in a minute.

The second meeting I'd like to highlight is Michael Bloomberg's One Planet Summit, which happened two weeks ago in New York. It was another collection of people who came together. To me, that meeting was more inspiring because of what they released just before it. Bloomberg was the chair of the task force on climate-related financial disclosures. It's a report that should be read here in Canada. Although, to me, the inspiration there is not necessarily the details of the report, but who was involved and the amount of capital that is interested in this issue of climate-related risk being real financial risk for the future of investment. The scale at which the investors involved are investing is over \$100 trillion of assets under management. To me, this is the first time we've moved from a discussion on the policy fringes or the realms of the private sector, as individual operators working from tens of trillions to \$100 trillion of assets under management, that is looking at climate as a key financial risk for investment decisions, which will drive behaviour change to a zero-net carbon future.

Of course, we also had the Nobel Prize and the recommendations that Paul Romer and William Nordhaus have made for years. Two key things come out of there for me. One is that mitigation is required, which is going to be cheaper to do today than it is going to be in the future, and that the most efficient pathway is through a carbon-pricing scheme. For me, it's not only the efficiency and expediency of that but the financial opportunity that we can dictate out of that.

We know there are lots of struggles, such as why this conversation is very difficult from a political perspective, from a theoretical perspective and from a timing perspective. It's very hard for societies to think in long-term time frames, so short-term decisions often override them. However, this shift of thinking about investor solutions in the long term and profitability and financial disclosure related to climate in particular, but sustainability more generally, is encouraging for me, to see the future of behaviour change happening.

As I said, we work to demonstrate the financial value of sustainability in a zero-emission future. At a project level, we've been working with clients on project-level decision-making and cost-benefit analysis of sustainable solutions versus non-sustainable—so for example, renewable energy versus non-renewable energy—at a CAPEX stage and an OPEX stage.

● (1535)

We started the company in 2012 when the economics were slightly different although almost cost-equivalent. With our first set of clients, for whom we introduced solar installation ideas for a large-scale solar development for energy needs, the cost comparison was pretty equivalent. What we're finding now is that the cost basis of installation, the CAPEX costs, are getting lower, and solar installations for large industrial applications are becoming more cost-competitive and out-competing traditional fossil fuel-based investment in energy.

We have a classic example of this using the analysis for the initial client we had in 2012. It was cost-neutral. Their board wasn't able to see the value of going solar. A year later, when they were into breaking ground, the price shifted and they came back to us and said

they should have gone with the renewable decision because it was costing them 15% more than what it would have cost to go solar.

It's happening not just in projects we work with. We're seeing more and more, in the last several months, industrialists investing in this space as well. We see an industrialist billionaire investing in the largest solar installation in southern Australia to feed a steel mill. He's not doing it because he's interested in saving the world or the environment. He's interested in making economic gain, and it's a financial argument for him to be going in that direction.

We're also seeing more and more disclosures happening. I talked about TCFD and the investor group. That's a major set of global investors, but we're also seeing it on the microscale as well. We get clients who are investors asking us questions about what we should be concerned about with climate and sustainability in terms of financial risk as we look in our private equity portfolios or our venture capital portfolios.

We also get calls every day and every week, more and more, from companies that are coming to us and saying that they had an investors' meeting last week and they're getting questions about carbon disclosure. They don't know what it is. They don't know what to do. Is it going to be a problem in the future? And it is. Those questions are going to come more and more.

What can we do as a country and what can any country do as one country in the world? In terms of this question of leadership, I think there are a couple of things. I think that Canada is well positioned to build economies in different spaces. We as Canadians always talk about how we think we're a natural resources economy, and that's very true. What we're seeing more and more, though, is that you can be in natural resources, and the value of nature standing is starting to out-compete the value of nature being converted.

We're demonstrating that in public jurisdictions around the world—and also with private sector companies—you can invest in the value of standing forests for environmental benefit, which also have an economic benefit, versus the conversion factor into timber.

Another key thing we can learn from is to identify champions of cross-sectors. Rather than having the same people giving the same message and telling the same story, convene other actors in non-traditional sectors to tell the story for us. A good example of this is in Australia. The Carbon Markets Institute is a convening group to get private sector actors together to talk about the value of the price of carbon in Australia.

We often hear in Canada the story about the carbon tax in Australia failing, which is true; the carbon tax doesn't exist anymore. But we hardly hear the story about the ETS system in Australia generating over \$2.5 billion in emission reduction strategies being championed and spearheaded by the private sector, and the private sector dominated by companies such as BHP, which is one of the largest mining companies in the world. So non-traditional actors are sending the message that carbon pricing is a solution and a financial opportunity.

I think we can also instigate and enhance the financial sector. Financial disclosure is a great thing on a voluntary basis from investors, but policy is a great way to position that as a mainstream activity. To me, the future of financial disclosure necessarily needs to incorporate sustainability and climate change, water stewardship and other elements in order for it to truly be accounting for the risks of the future, and the investor risks and the financial risks that we all face.

[*Technical difficulty—Editor*]

• (1540)

The Chair: We're having a technical problem. There was one minute left for wrapping up comments. We'll see if our technology support can get our presenter back.

In the meantime, we'll move to Ms. Johnson. Earlier this week, I had the chance to have a meeting with her and to learn about the Canadian Foodgrains Bank, which was a very excellent meeting.

She is joined by Mr. Defor.

I will turn it over to you for 10 minutes.

Ms. Naomi Johnson (Policy Advisor, Canadian Foodgrains Bank): Thank you for the invitation to speak to the committee about Canada's climate finance commitments. I'd like to bring the other side of the story here today.

Before I make any recommendations, I want to tell you about a woman I met last month in Tanzania, which is in eastern Africa, a farmer named Cecilia Lubeja. Cecilia is the mother of six children. She started farming with her family when she was seven. She is now almost 50, and farming continues to be her primary source of income. With a number of decades of farming experience behind her, Cecilia knows when to expect the rain, what types of seeds to plant, and how to prepare the soil for a good harvest.

The problem is that her knowledge doesn't work anymore. The rain doesn't start when it should. She is consistently faced with extended periods of drought. When the rains do come, they are so strong and sudden that they wash away the topsoil and flood her fields. She also now struggles to control the pests in her fields, pests that she has never before seen in her area.

Cecilia told me that farming has become increasingly difficult, and she has had to rely on clearing land for others in her community, in order to earn enough money to feed her family.

Cecilia is only one of millions of people in developing countries already struggling to deal with significant changes in rainfall, storms and temperature. Farmers depend on the weather, so they are often the ones who are hit the worst.

These farmers and the local organizations that work with them agree that the world needs to reduce the greenhouse gases that are causing the problem, but they tell us that the immediate need is to help them adapt to the changes they are already seeing. Mitigation is important and adaptation is crucial.

Civil society organizations are essential in advancing Canada's adaptation work. In Cecilia's case, Canadian Foodgrains Bank worked with local organizations in Tanzania to train Cecilia in conservation agriculture, a low-input farming method that improves

soil conditions and allows crops to thrive in variable climatic conditions.

At Canadian Foodgrains Bank, we envision a world without hunger. A recent report from the United Nations Food and Agriculture Organization has stated that, after years of decline, hunger levels are again on the rise. This is largely due to climate variability and extremes. At Canadian Foodgrains Bank, we are delivering food to people in humanitarian crises, helping smallholder farmers better their livelihoods and improving family nutrition. We are supported by thousands of Canadians, many of whom are farmers, who believe that we as Canadians have much that we can share.

We should be more generous in supporting the 70% of hungry people in the world who are farmers. Donations from the public are matched by the Government of Canada, and for that I say thank you. We draw on what we've learned from our work in developing countries, and what we continue to hear from farmers like Cecilia, to engage in policy dialogue with the Canadian government. It is from this experience, our work in about 40 countries around the world, that I have put together three recommendations for this committee regarding Canada's international climate finance.

First, Canada should contribute its fair share, based on the size of our economy relative to the economy of other donors.

Second, Canada should make sure that half of our contributions help people adapt to the changes already affecting them.

Third, Canada should make sure our adaptation efforts are targeting the poorest and most vulnerable.

On the first point, our fair share, you may be wondering how that's determined. Canada's economy makes up 3.9% of the total economies of donor countries within the OECD, so our fair share is 3.9% of any global commitment. Donors have committed to U.S. \$100 billion annually for climate finance by 2020. Based on the 3.9%, Canada's fair share of that is \$1.9 billion Canadian per year.

Canada's current commitment of scaling up to \$800 million a year by 2020 is a big improvement over our efforts in the past several years, but we're still less than halfway to the \$1.9 billion that represents our fair share. While we like to think of ourselves as leaders on climate finance, Canada is actually at the back of the pack, ranking 16th out of 23 donor countries.

My second recommendation is about adaptation. The Paris Agreement states that donors should aim to achieve a balance between adaptation and mitigation. Many countries already allocate 50% or more to adaptation. Canada is improving in this: We've gone from about 16% adaptation in the 2010-12 period up to about 30% for the current period, but there's room for improvement.

● (1545)

I am not saying that mitigation isn't important. The world needs to reduce greenhouse gas emissions, and Canada has a significant role in that. But when you consider that the average Tanzanian emits 1/157th of the CO₂ the average Canadian emits, it's clear that Tanzania would do better to focus on adaptation for Cecilia and the rest of the farmers who feed that country rather than on mitigation. Canada has the responsibility and the capacity to support these efforts.

My third recommendation is to focus on the people hardest hit by the impact of climate change, which brings me back to Cecilia in Tanzania. She is a woman, and we know that women are particularly vulnerable to the impact of changing climate. She is a farmer, and we know that food producers in developing countries who rely on the weather for their livelihood are already struggling with changing and unpredictable conditions. She lives in Tanzania, which is considered by the United Nations to be one of the least developed countries.

This group of countries, along with small island developing states, are having the hardest time dealing with climate change. They need to adapt, and they need climate financing in the form of grants to do it. What they don't need is greater debt loads, which is what happens when climate financing comes as loans.

Additionally, Canada currently channels over 80% of its climate finance through multilateral channels. These channels have not been very effective at reaching the poorest and most vulnerable. Multilateral channels are heavily weighted toward mitigation projects and projects in middle-income countries. Multilateral development banks have a poor history of gender-equality programming.

If Canada really wants to reach those on the front lines of climate change, civil society organizations have a better track record. These include Canadian organizations already working closely with those impacted by climate change, and farmers' organizations in developing countries. Such organizations already have expertise in how people can adapt to the changes they are seeing, which ensures Canadian dollars are used most efficiently.

For Cecilia in Tanzania, the only fields she reaped a harvest on last season were the ones for which she applied her training in conservation agriculture. Farmers in her community are seeing the benefits of such practices and learning from Cecilia how to adopt them. Cecilia is grateful to now have food for her family and some to sell as well.

On behalf of Canadian Foodgrains Bank, as well as the Canadian Coalition on Climate Change and Development, of which I am the co-chair, I thank you for this opportunity to join this important discussion.

The Chair: Great. Thank you for those opening comments.

We have Mr. Balasubramanian back on the line.

You had one minute left and I don't know if you have some tight closing comments you want to offer, but I am willing to give you that minute before we get into the questioning.

Mr. Hari Balasubramanian: Thank you.

I was going to end with a line from Schwarzenegger, which is basically, "I don't care if you believe in climate change, but if you believe in money then you should be interested in the price on carbon."

The Chair: Great. Thank you.

We'll now get into our rounds of questions.

Before we do, I want to welcome two guests on the Liberal side, Ms. Alaina Lockhart and Mr. Kent Hehr. Welcome to the environment committee.

And on the Conservative side we have Dan Albas. Mr. Albas, welcome to the committee.

For our first round of questions, Mr. Bossio has six minutes.

Mr. Mike Bossio (Hastings—Lennox and Addington, Lib.): It's so difficult being the first one with this panel because I have so many different directions I'd like to take this in. The first one points to what Mr. Balasubramanian talked about, that the price on pollution really can be an economic driver for many countries. We saw in Australia, for example, that when they had their price on pollution, their GHG emissions did drop substantially.

I know you said the change that happened after that was with a \$2.5 billion investment. They don't have to be mutually exclusive. They could have kept the price on pollution and continued to see that downward pressure while making the investment that was actually going to reap greater gains for them financially in the long run, and probably accelerate their GHG emission drops at that time.

Would you agree with that?

● (1550)

Mr. Hari Balasubramanian: Yes, I fully agree with that.

There is an interesting reality today that 45 national jurisdictions and 25 subnational jurisdictions have a price on pollution, whether it's a tax or an emission trading scheme. The most effective at emission reductions are those that have them jointly. Certain jurisdictions are essentially applying that recommendation, to have the joint system in place, which drives emission reductions and also enhances the economy in two fundamentally different ways—the tax and the ETS.

Mr. Mike Bossio: At the time Australia introduced their price on pollution, they were also one of the fastest-growing economies in the world. I think they had a record of fiftysomething straight quarters of growth, so it didn't impact that aspect of their economy.

A lot of times you say you're not going to see a difference; it's going to take forever to see the difference. But we do see in Australia's case that the difference happened almost immediately, as soon as the price on pollution was introduced.

Is that correct?

Mr. Hari Balasubramanian: I fully agree. You see that same trajectory in California as well. There are examples in B.C. I think the Australian example is not quite unique.

Mr. Mike Bossio: That's exactly the same thing we've seen in B. C. They introduced their price on pollution, and the sky didn't fall. Their economy boomed. They had the fastest-growing economy in Canada. Their GHG emissions dropped. Until recently it wasn't having an extraordinary impact on individual residents either. They were benefiting from it.

Would you agree that in this type of situation industry will typically pay at this level, and the wealthiest will contribute as far as how much they and average Canadians are paying at this level, but the payback on it, the dividend on the other side, can be that the average citizen is at a higher level of receipt, the wealthiest Canadians receive this amount, and then the industry is at this level? Average Canadians could benefit. They could see a greater rebate than what they are paying in price on pollution in the first place.

Would you agree with that?

Mr. Hari Balasubramanian: We see the studies that demonstrate that, in future projections and in modelling the rebate system, and how individual households will be affected differently across the provinces. Interesting studies have been released in the last several weeks that demonstrate that, and I fully agree that's possible.

We're seeing that in other jurisdictions around the world as well. If you look at Scandinavia, the redistribution of the highest emitters to lower-income families shifting practices for emission reductions is having the same net effect.

Yes, you can see individuals benefiting through the system. Ultimately the whole society benefits, because as I mentioned before, investors will be more interested in those companies that are doing the right thing for their own emission reductions and paying the right cost.

Mr. Mike Bossio: At the end of the day too, investors are looking for consistency, that stability of the pricing mechanism to understand exactly what they need to do to achieve that mechanism and then ultimately to profit from the mechanism in place. Because, let's face it, our leading business minds in many instances are the most creative minds, and if there is a profit to be made, they will find it. Those who are given the opportunity to innovate will innovate the most quickly to take advantage of that profit.

Have you seen that?

Mr. Hari Balasubramanian: I fully agree. I will give you an example.

One of our clients is BHP, the mining company in Australia. They saw that opportunity during the carbon pricing system in Australia. That's exactly what happened. They saw the market opportunity and the financial opportunity and, as the largest emitter in the country,

they became one of the biggest champions for carbon pricing in the country.

Mr. Mike Bossio: Thank you.

Finally, the last question is to the Canadian Foodgrains Bank. I had the great pleasure of meeting the Minister of Agriculture for China yesterday. He was at our research centre where we are doing groundbreaking work with winter wheat and oats that have greater resistance and that are hardier to environmental changes like the ones we are going to experience.

Can you give us a sense of the importance that has, not just in the Canada-China relationship but in general for developing countries?

Ms. Naomi Johnson: Yes. Absolutely.

I think many of the farmers we talk to need to rely on seeds that are adapted to changing conditions. As I was saying, I was recently in Tanzania as well as Uganda. Many of the farmers there were given these seeds either through government support or through NGOs in the area. These are seeds that shorten the growing season so the plants can grow faster so they are able to harvest in a season of drought.

• (1555)

Mr. Mike Bossio: Thank you so much.

The Chair: Thank you.

Mr. Warawa, you're up next.

Mr. Mark Warawa (Langley—Aldergrove, CPC): Thank you so much.

I want to thank the witnesses for coming. My first comments were going to be a little different, but I want to set the record straight. I'm from British Columbia; it has a carbon tax. The cost of living, affordability, is the biggest struggle in British Columbia. Homelessness is the largest. And emissions have risen, not gone down. Those are the facts.

I have questions for Canadian Foodgrains. I want to begin by thanking them for the incredible work they do.

The climate is changing around the world, and so you're meeting a very important need regarding pollution, and we will be talking about pollution in a minute, but I think you have been providing adaptation and mitigation since 1983. Is that right?

Ms. Naomi Johnson: That's right.

Mr. Mark Warawa: You originally had grain coming from Canada, and now those who grow in Canada actually sell the crop in Canada and provide the funding to you, and then you send that funding to another country where they will grow the grain there.

Is that correct?

Ms. Naomi Johnson: That's correct.

Mr. Mark Warawa: So the more money we send, the more hungry people we can help. Is it that simple?

Ms. Naomi Johnson: Yes, it is, very much so.

The majority of our donations come from actual Canadian farmers who are involved in what we call growing projects. Someone will donate the land. Often there are private companies donating seeds and fertilizer, and then together a community harvests this land, sells the grain here in Canada, and then we can actually buy the food as immediately as we need it and support local economies in developing countries.

Mr. Mark Warawa: We're right in the middle of a debate as to whether a carbon tax is good for Canada. Canadian farmers, in fact the Grain Growers of Canada, have said they don't support a price on carbon because it increases the price. It means less money to help people in Africa, those who need help through mitigation and adaptation.

The Toronto Star reported the Canadian Federation of Agriculture saying the same thing.

As we increase the price to grow the grain in Canada, it means less money. So a carbon tax is actually hurting what you're trying to do. That is the point I want to make.

You've come here and you're looking to influence the improvements nationally, with policies that will contribute to ending global hunger, and I have an idea.

It is actually from Ted Falk, member of Parliament for the Winnipeg area. He introduced Bill C-239. He highlighted that, for a charitable donation of \$400 to a political party, you get a tax deductible receipt for \$300 back. It only costs you \$100. If you give a \$400 donation to the Canadian Foodgrains Bank, you get a \$88 tax credit back. His idea was that, as a national policy, if donations to NGOs like yours would get the same benefit as a political donation, that would mean people could give a lot more money and you would get a lot more money. It would have a huge impact. This would result in more money to you.

What do you think of that idea?

Ms. Naomi Johnson: I think that's an interesting idea.

I'm not an expert on carbon taxes. That's not the focus of our work. I think a lot of farmers we deal with here in Canada feel a little bit attacked by the conversation on climate change. However, many of them will talk about changing weather and how they are farming differently now from the way they used to. All of them will understand that people around the world are impacted by climate change and that we can make a difference toward that.

I think many of them believe that, while there are opportunities in the private sector and other areas, the public sector still has a role to play in increasing those aid levels, so we can support more farmers.

Mr. Mark Warawa: Giving a tax-deductible receipt the same as for a political donation would mean more money in your pocket. Is that something you may be interested in?

Ms. Naomi Johnson: We're always interested in more money in the pocket, because it enables us to do a lot more, but I'm not an expert on how that would translate.

Mr. Mark Warawa: Okay.

That is a bill that, unfortunately, the Liberals voted against, but that maybe can be reconsidered.

Mr. Chair, we had Environment Canada here on Tuesday. I introduced a motion at that time that, in the study of international leadership, we call Volkswagen officials as witnesses and call Environment Canada back. I would like to move that motion. I provided the notice of motion on Tuesday, so I would like to move that now.

If we could deal with it quickly, then we could move right on.

• (1600)

The Chair: Okay.

We have a notice of motion before us.

Mr. Mark Warawa: Could I just speak to that?

The Chair: Okay.

Mr. Mark Warawa: Thank you.

It's important that we provide leadership internationally. That's what this whole study is about. The motion is asking that we have at least two meetings, one to have Volkswagen Canada officials testify before us and the other to meet with Environment Canada officials.

Environment Canada told us that it would be the enforcement branch that would need to come and speak to us. I would see two meetings. The committee may say let's have more than that. But it's important because we heard that the United States provided a \$14.7-billion fine to Volkswagen for falsifying the pollution numbers. The government's position is that if it's polluting, it will have to be paying for polluting.

You cannot pollute for free in Canada. This is the government's opportunity to make sure it enforces the regulations. Hopefully, the government will be serious about that commitment to cause research on this and find out why Volkswagen has not paid a fine in Canada yet and what kind of investigation is ongoing.

I think it's timely. Without wasting any more time, unless there are other comments, I think we should vote for that.

The Chair: Let's do it then.

Mr. Albas.

Mr. Dan Albas (Central Okanagan—Similkameen—Nicola, CPC): No, I didn't put my hand up first.

The Chair: Okay.

Go ahead, Mr. Bossio.

Mr. Mike Bossio: I want to express my appreciation to our colleague Mr. Warawa for this motion. I think right now, though, we have a study before us that is also vitally important that we do and that we've agreed as a committee we would do. We also know that there are considerations of studies that we wanted to do after this as well. We're happy to consider this once we've looked at what the other studies have put forward. Right now, though, given the commitment we have right now to this study, and the importance of it, I don't feel we should move away from this study.

So no, I wouldn't be in agreement.

The Chair: Mr. Albas.

Mr. Dan Albas: Thank you, Mr. Chair. I'll be brief out of respect for the witnesses.

This is a very interesting study that the committee is working on right now. It's on Canada's leadership role. One of the areas that many developing nations often will want support on is helping to build the institutions—for example, in the proper regulation of energy companies or major companies that have products that end up generating greenhouse gas emissions. I think it is really important that the committee support showing that Canada is a leader in these things and that parliamentarians take our laws very seriously.

I'm not sure about other members, but I will say that when I go door-knocking, from time to time I will come across a Volkswagen owner who has purchased those vehicles and who asks me about the state of this. I think it would be entirely appropriate to include that there is an oversight function, that we're not just looking to pat ourselves on the back but are actually looking to continue to monitor and encourage good compliance with Canadian laws. It's not enough for us to simply pat ourselves on the back for monies that have gone out of the country. We also need to make sure our institutions here in Canada are robust. We need to basically lead the way when it comes to demonstrating leadership not just on GHG emissions but on the rule of law.

The Chair: Next on our speaking list is Mr. Hehr.

Hon. Kent Hehr (Calgary Centre, Lib.): Thank you, Mr. Chair.

When I look at the motion before me, to me it appears to be more of a narrow-type motion to look into Volkswagen, their emissions testing and the like. When I look at what this committee has been instructed to study at this particular time, which is a study of clean growth and climate change in Canada and international leadership, to me it looks like a much more broad-based topic, something that we can dig into that actually talks about what we're trying to do here in Canada, such as put a price on pollution. We had that very excellent talk that just recently was completed, as well as Canadian Foodgrains and their role on the international scene. They have gone and helped institutions and countries around the world.

I think it's much more prevalent for us to stay on course and deal with the matters we've laid out. Although it's a very interesting topic, it's one that I think would sidetrack us from the main goal here, which is to learn more about clean growth and climate change in Canada and international leadership.

• (1605)

The Chair: Thanks for those comments.

Mr. Stetski, you're next on the list.

Mr. Wayne Stetski (Kootenay—Columbia, NDP): I think it would be an interesting study. I mean, we could ask the analysts to look into it a little bit more, but we should have it put into the lineup with the other studies we're considering rather than proceeding immediately to this study.

The Chair: Mr. Godin.

[Translation]

Mr. Joël Godin (Portneuf—Jacques-Cartier, CPC): Thank you, Mr. Chair.

Actually I do not share the opinion of my honourable colleague Kent Hehr, who just joined the committee. I think holding these two meetings would clearly show that Canada is a leader and is taking action. We have to send signals that the environment is important, and I think this is a good opportunity to take concrete action.

If we have the necessary flexibility and the time to hold these two meetings during our study, the government might be pleased to have the committee's recommendations and then act quickly. That is why I think this motion is constructive and that it serves the interests of the environment for Canadians.

Thank you, Mr. Chair.

The Chair: Thank you.

[English]

Mr. Warawa, you're next.

Mr. Mark Warawa: Just as a closing comment, I am flexible if there's a desire to have it immediately after this. That would be fine. I see a fit in international leadership in dealing with this issue because Volkswagen is a vehicle that can be bought around the world. It's manufactured around the world, and it's sold in Canada.

What is the price of pollution, for giving false, inaccurate data to Canadians, to Transport Canada? In the United States it's \$14.7 billion. In Canada the price of pollution is zero. It appears to be. If you don't have enforcement and you have speed limits of 100 kilometres and there is never going to be enforcement, people will not obey those, and if the message is that in Canada you can pollute and you won't have to pay, that there is no enforcement, then things like this happen.

It is important that we deal with this. If you want to do it immediately after, fine. I see it as a good fit within...and I would be open to an amendment that we do it immediately after. It is timely. The U.S. has already dealt with this, and we're a little bit late in the game, but it's still not too late to deal with this important issue. Pollution is killing people, and we need to deal with this along with all aspects of pollution.

It is timely, and I hope I can get some support.

Thank you.

The Chair: Thank you.

Mr. Amos.

Mr. William Amos (Pontiac, Lib.): I won't belabour the point. I think we all agree that pollution is killing people. The WHO says so, in the tens of thousands every year, but it is also fair to say that because, as I understand it, there is an investigation ongoing, undertaken by Environment Canada's enforcement branch, it would be improper for the legislative branch to interfere with that investigation.

I share the member opposite's concern about the issue of Volkswagen. They've been held to account in Germany. They've been held to account in the United States. It's a big deal, but given there is work ongoing, we, as legislators, should step back, wait for that investigation to conclude and let the investigators and potentially the prosecutors do their work. We should vote on the basis of the motion as brought.

The Chair: Thanks.

Mr. Stetski, you're next.

Mr. Wayne Stetski: I just want to be clear on what we're voting on. The motion currently says we will undertake a study if we vote in favour versus considering it later on, for clarification.

The Chair: The way I read it, the motion says we will undertake a study, yes.

Mr. Albas.

Mr. Dan Albas: Mr. Amos mentioned that it wouldn't be proper for us to have it during an investigation. First of all, it would be inappropriate if it were during a court case and that was going to a judicial body. Right now we don't know if they will face any sanction whatsoever, and it is the role of this place that if consumers are asking questions Canadians would want their members of Parliament to be asking those questions. Perhaps we might be able to get some answers.

We have already seen a full due process in the United States, yet it hasn't happened here. People would want us to see it. As to whether or not it would be as part of this study on international leadership, it would be up to Liberal members or maybe Mr. Stetski to make an amendment.

I just would point out that if nothing happens, then I believe we're not doing our job. If there are charges laid and this does go to court, then Mr. Amos' proposition that we should not be part of it would be totally appropriate, but I would say again there is a public interest in this and committees are the location where individual parliamentarians can actually bring some light to these issues.

It should be worthy of support.

• (1610)

The Chair: Thank you.

Now Mr. Bossio.

Mr. Mike Bossio: Chair, I move that debate be now adjourned and that we move to the question.

The Chair: Okay.

A voice: To be clear, you can move it [*Inaudible-Editor*]

Mr. Mark Warawa: So there is no vote.

A voice: There is no vote.

Mr. Mark Warawa: So I just bring it back.

A voice: Sorry, do a vote now.

The Chair: There are no further speakers.

We need consent to withdraw the motion. Do we have consent?

Mr. Mark Warawa: Yes.

Mr. William Amos: I would rather vote on the motion right now.

Mr. Mike Bossio: We're willing to vote on the motion right now.

The Chair: We'll vote on the motion.

(Motion negated)

The Chair: That has taken about 13 minutes from our questions. Given that we started with our witnesses about five minutes late, we'll continue with questions until about 4:55, if the witnesses are available to continue through that period. That's Ontario time. I'm not sure where everybody else is.

We were about to go to Mr Stetski.

Mr. Stetski, you have six minutes.

Mr. Wayne Stetski: Thank you. It's been interesting to be here in Ottawa, where you often hear two diametrically opposed truths on a number of different topics.

I'd like to go to Hari, please.

In terms of the research you've done, what have you seen or heard about B.C.'s example, and whether GHGs have gone up or down with a carbon tax in place? What has research told you about carbon taxes? Do they hurt or help economies?

Mr. Hari Balasubramanian: To be clear, we don't conduct academic research on the issue. We look at [*Technical difficulty—Editor*] examples and opportunities for our clients to make strategic decisions across their operations if they are private sector, or other decisions if they are from the public and [*Technical difficulty—Editor*] sectors. I will say that I was interested to hear that statement a few minutes ago about emissions going up. It was contrary to the story I heard from Nobel Prize laureate Nordhaus, and I was just looking to see what the actual numbers showed. Doing a quick analysis just now, I note that both per capita emissions and overall emissions in B.C. have been reduced relative to those from 2008, with a slight blip in increased emissions between 2011 and 2013, as per the provincial statistics. That's not a research project in and of itself, and I'd like to look into that issue a little bit more. To me, blips and increases over an annual or biannual period don't necessarily mean that a program isn't working. Also, I would say that a ten-year platform showing a general reduction overall seems to be an interesting data point to look at.

Mr. Wayne Stetski: Earlier in your testimony you talked about a number of countries that have prices on pollution of different kinds. I'm trying to recall whether you commented on the state of their economies as well, as part of your testimony.

• (1615)

Mr. Hari Balasubramanian: I didn't comment generally on the state of the economy. I'll note a couple of things on that discussion, and also coming back to the B.C. example. Sometimes we conflate the overall state of economies with one policy decision or market issue, such as the price on pollution. When we talk about the overall cost of living, or the rate of homelessness, or other socio-economic factors, and relate those to one aspect of markets or policies, that's a misrepresentation of what the causal factors actually are.

Over the 45 jurisdictions that do have a price on carbon, whether it's an ETS or a carbon tax, for the jurisdictions where we actually worked to help introduce those prices—in Latin America, Europe, and Australia—for the economies in general, in terms of the influence the carbon tax could have on them, it's tough to say. If you look at the Australian economy and the downturn, that's really related to the resources sector and commodity prices—of iron ore in particular but also of other commodities. Relating that to any issue around a carbon pricing scheme, or the ETS system there, is conflating two very different variables.

If you look at a jurisdiction like Colombia, which has a price on carbon under President Santos' regime—we worked in alignment with President Santos and his team—the economy in Colombia is advancing. But it's due to different factors, including the peace process that was signed, so it's conflating issues to say that that's based on a \$3 per ton price on carbon in Colombia. I think it's difficult to make that assessment unless you do a deep economic analysis.

Mr. Wayne Stetski: Thank you.

Could you comment on the role of small and medium-sized businesses when it comes to climate change? What can they do, and how can government help incentivize SMEs around climate change?

Mr. Hari Balasubramanian: That's a really good question, and it's a little bit outside of our realm. We tend to target large emitters, large companies, that can have substantial environmental and social gains.

A portion of our business does look at venture-stage companies and SMEs in the international context.

I think how governments can help venture-stage companies around sustainability in general and climate change in particular relates to some of the things the other witnesses have said. There's not necessarily a lack of capital that needs to flow, but a lack of implementers who can help create the right capacities within organizations—whether they're SMEs, local civil society institutions or community organizations—in order to implement practices that are economical and cost-effective, but also technically sound and efficient.

I think that gap is where government can play a role. How do you make the capital turn into impact? That's through technical assistance programs and capacity-building assistance.

I agree with the point that was made by the other witness as well, that providing that money through debt finance is often problematic, especially at the SME level. SMEs in developing countries have a much greater challenge, and the barrier of entry to become an SME in a country like Tanzania, which was mentioned, is much lower. SMEs there are companies that are \$10,000 to maybe \$200,000 in value, which is a very different scenario from what we're talking about in the Canadian context. Saddling them with a debt burden rather than providing that capacity in other ways to help them build their own economic viability is a detriment to the system.

I think countries at the international, bilateral, and multilateral levels and at the domestic level can support SMEs to develop their capacities in order to succeed.

The Chair: Wayne, you're down to 10 seconds.

Mr. Wayne Stetski: Naomi, just quickly....

Do I get three minutes later, as well?

The Chair: If we get around there before we're done, yes.

Mr. Wayne Stetski: Okay, I'll start the question now. You may have to answer later.

What can or should we be learning here in Canada from what you've seen in other parts of the world to be better prepared for climate change in terms of agriculture here in Canada?

The Chair: We're going to move on to the next questioner. We may be able to get back to the answer on that one.

Mr. Amos, you have six minutes.

Mr. William Amos: Thank you, Mr. Chair.

Thank you to our three witnesses today. It's very appreciated. You're bringing very different perspectives, certainly.

My first question is related to the carbon pollution pricing issue. I think this has definitely come to the fore. I'd love to hear a little more on the importance of this kind of fiscal mechanism internationally.

Why is it helpful internationally for Canada to adopt such a measure, setting aside the domestic benefits? Why is it an important signal internationally, and what will it help our businesses achieve in terms of growth opportunities?

• (1620)

Mr. Hari Balasubramanian: I think there are a couple of facets here. One point I'd like to make is that carbon, unlike other commodities, is a fungible asset that is tradeable universally.

In terms of taking an international leadership position, it's not only that. It's that if there's no universal price on carbon around the world, you're going to have market failures in certain aspects. By taking a leadership position and having a price on pollution in Canada, we need to encourage that group of 45 national jurisdictions that already have a price on pollution to turn into a group of 150 or 187, however many are represented globally.

I think that's the first step: to signal that it is important enough for a major economy like Canada—and other major economies around the world—to drive all countries, because it needs to be a universal price, which Nordhaus recommends as well.

In terms of playing in the international marketplace, we're seeing more and more that countries that have a price on pollution are dictating that on a corporate level to companies. Several of them are either on the Toronto Stock Exchange or operate out of Canadian headquarters. It's driving their operations to change.

We saw this in our work in Australia, for example. Certain countries that had regulatory systems that were putting a price on carbon forced companies to change before the government changed.

That's a shift that's going to happen. If we take a front-leaning position on our policies as a country and on our footprint internationally for companies that operate in the international space, we'll be ahead of the game on the regulatory environment in countries where we operate. It gives us more access to markets and opportunities in emerging markets.

Mr. William Amos: If I understand you correctly, the pricing of pollution domestically will have the effect of opening markets for Canadian companies and will have the effect of giving Canadian entrepreneurs the opportunity to get ahead of their international competitors so that we can both generate domestic economic opportunity and, at the same time, drive change internationally by putting downward pressure on emissions internationally.

I think we all accept that a tonne of emission in Canada is the same as a tonne emitted in any other country. We can achieve our international objectives while benefiting our own businesses. Is that what you're saying?

Mr. Hari Balasubramanian: That's what I'm suggesting. I think it's a pathway. If you look at a private sector company and the pathway to get to a zero-emissions future, the first step is disclosure. That's why Mark Carney and Mike Bloomberg set up the task force on climate-related financial disclosure. Disclosure does nothing to affect the problem, though, so the next step is emission reductions and behaviour change in order to get to that zero-emission future.

What I'm saying is that, if policies in Canada compel Canadian companies to go down that pathway and change their corporate behaviour, they become better competitors in the international market space.

Mr. William Amos: Could you provide some more detail on the nature of disclosures referenced by Carney and others that are most helpful as we look to develop Canada's international climate leadership, not just from a governmental perspective but from a corporate perspective, particularly those corporate entities that are listed on Canadian stock exchanges?

Mr. Hari Balasubramanian: I don't have that at hand right here, but the recommendations in the TCFD initial report would have some of those. There will be follow-up recommendations through those reports.

What we are seeing is individual investors demanding things like CDP reporting from companies or removing their equity stakes. That's where we're getting companies approaching us and saying their investors are starting to ask questions, and the gold standard right now is through the CDP reporting framework, the carbon disclosure project.

Mr. William Amos: Okay. Thank you for those comments.

I'll ask a very quick question to the other witnesses. Sometimes there are suggestions from the opposition benches, particularly the Conservative side, that Canadian government funds invested in development assistance ought to be directed towards Canadians and not the international community.

On the climate file particularly, and in relation to farmers who are struggling in developing countries, what is your attitude towards the importance of such funds more generally but also in relation to climate?

•(1625)

Ms. Naomi Johnson: Our climate finance largely counts as our official development assistance, our aid. Aid is there to support developing countries and support the poorest and most vulnerable. The farmers who we talk to here in Canada who support us know that the most effective way to implement adaptation strategies is through local organizations that understand the context, understand the political situations, and understand the geography of these areas.

I think working through these local organizations, whether they be there or in Canada, that are supporting local organizations and working closely with them—and there are a number of them as well—is an important way of reaching those strategies.

The Chair: We're out of time. Now we'll move over to M. Godin.

[*Translation*]

Mr. Joël Godin: Thank you, Mr. Chair.

To begin, I want to tell my colleague Mr. Amos that I do not necessarily agree with what he said about the Conservative Party's vision of foreign investment. We need to be rigorous and manage our money well.

Thank you to our witnesses for taking part in this exercise.

Parliamentarians are not all experts on the environment. I do not claim to be one. That said, I am well aware that, as citizens of the planet, Canadians have to take concrete action.

The latest IPCC report, which was published recently, outlines the effects of global warming by more than 1.5 degrees Celsius over pre-industrial levels. It indicates that this increase in temperature will have multiple effects, including heat waves, extinction of species, destabilization of polar ice caps, and so forth. The scientists maintain that we must reduce CO₂ emissions by 45 % by 2030 and achieve carbon neutrality in 2050. That is a summary of what the report says.

I simply want to find solutions to meet and even surpass these objectives. We are human beings and we have to protect ourselves.

My question is primarily for Mr. Balasubramanian.

The current government is strongly advocating a carbon tax, which it sees as the way to achieve these objectives. For my part, I have trouble understanding how this tax will solve the problem of the rise in temperature of 1.5 degrees Celsius.

[*English*]

Mr. Hari Balasubramanian: That's a great question.

Why does a price on pollution necessarily get us to that pathway of 1.5 degrees by 2050?

One thing that I'm unclear about in this overall discussion is what the government is proposing today. I heard you say carbon tax several times. That's not what I hear. I might be mistaken, but I hear a price on pollution, which could be an ETS system or a carbon tax, and those are two fundamentally different ways to approach the problem. They're both pricing pollution. One is through a market mechanism and one is through a policy, non-market mechanism. Essentially, they both put a price on the same thing.

I would say that the way we get the pathway there is through a change in behaviour. A tax on carbon is a way to incentivize reductions in the industrial space—the highest-emitting sectors—but also to distribute the income generated from that to emission reduction strategies and low-emission technologies. We work on both sides of the problem, where you have incentive for behaviour change to reduce overall emissions on the one hand, and you produce technologies that rely on fewer emissions on the other hand. You get closer to net neutrality overall.

On an ETS scheme, the system is to incentivize behaviour change as well, with a trading scheme to set a cap at an appropriate level that dictates how we get to that point. Overall—and this is from a purely pragmatic perspective—the cap-and-trade system to date has been overly politicized, and the target hasn't been set appropriately to meet the temperature threshold.

We need to actually set the threshold in a way that makes sense, and then the price will fluctuate appropriately. We are going to see what the IPCC also recommended: that the price on pollution is going to increase from what we think today—which is another 30/90 scenario in Canada—to upwards of \$130 to \$5,500 dollars per tonne of carbon to meet the actual commitment.

That sounds scary and volatile, but to me it also sounds like a tremendous financial market opportunity to get us to that goal that you said we all need to strive towards. I don't think the system is agnostic, but the solution is a price on pollution.

I will point out that economists—and they're smarter than I am in this space—generally say the most efficient way to get there is through a universal tax mechanism. I trust that could be the case.

• (1630)

[Translation]

Mr. Joël Godin: That might be one solution, but I think we have to look at all the solutions.

I will go through my questions quickly.

You are in the business of funding sustainable development projects. For a number of years, there has been research and development for certain green technologies. I think many labs and industries are looking for new practices to reduce greenhouse gas emissions.

Instead of taxing businesses that pollute, don't you think we could create regulations? The carbon tax is not necessarily a bad idea, but people are asking questions. They don't know who will manage the money collected from the carbon tax. Nor do they know whether that will solve the problem at the source. That is the problem.

We are missing a step, administratively speaking. I don't think anyone is in bad faith. That said, imposing this tax will lead to an increase in prices. Consumers will have to pay more, but will that actually reduce greenhouse gas emissions?

Are there other green technologies whose implementation could be accelerated to meet the objective stated above?

[English]

The Chair: Unfortunately, we're out of time. There may be an opportunity for one of your colleagues or someone else at the table to pick that up for a response.

In the interest of time, we'll now move over to Ms. Dzerowicz.

Ms. Julie Dzerowicz (Davenport, Lib.): I didn't actually know I was on the list, but that's okay; I have questions.

The Chair: Okay, perfect.

Away you go. You have six minutes.

Ms. Julie Dzerowicz: Thank you.

My question is to you, Ms. Johnson.

You made a number of wonderful recommendations and I'd love to dig a little bit deeper into them. You mentioned that Canada should in its contribution internationally be helping people adapt. You were saying that right now most of our money, 80% of the money, is actually focused on mitigation.

Why do you think that is? Is it just because we're going through multilateral organizations that actually focus mostly on mitigation? Is it because we have an objective that our goal is to focus mostly on mitigation? Why is it that we're mostly directing the dollars to mitigation?

Ms. Naomi Johnson: I think that a big part of that is that most of our funding is going through multilateral organizations, but specifically multilateral development banks as well as this blended finance. When you think about what a private company would want to invest in, it's more likely that it would invest in a, say, large hydroelectric project, which is a mitigation project and a company, versus helping a small-scale farmer try to grow their crops better.

I think a big part of the challenge is because our funding, as you suggest, is focused through multilateral channels rather than through bilateral channels, and specifically through CSOs, civil society organizations, which we know are more likely to spend money on adaptation.

• (1635)

Ms. Julie Dzerowicz: I think the further point you made, just to continue along that line, is that it also gets to the poorest and it also gets to some of the target groups that you were talking about.

I'm assuming there's a particular reason why we focus on multilateral organizations but I'm not sure whether it's easier for us or whether the accountability's there.

If I went to our Minister of International Development and said let's give more of our funding over to civic society groups or to smaller organizations, what would be her response to me? Would it be that we have issues around accountability or it is more difficult to know if the dollars are actually going to go to where they're supposed to go?

Could you maybe let me know what some of the hurdles have been in the past and maybe how we can get around some of those hurdles so that we can move forward and maybe help redirect some of this funding more toward adaptation?

Ms. Naomi Johnson: There are a number of reasons why multilateral organizations are funded.

We hear from this government regularly about the importance of leveraging money. We've made these huge commitments on climate finance, contributing towards \$100 billion with donor countries by 2020. To reach those commitments, we need to leverage money through the private sector and through other ways.

Another big issue is the administrative logistics part of it. For one thing, it's much quicker for the government to disburse money through multilateral development banks. It can say, "okay, this money is out the door now", versus having to do a bit of the homework about accountability that would come from going through CSOs.

We haven't heard anything about CSOs being less accountable. In fact, because some of us rely on government funding, there are very high transparency and accountability standards. I think in many ways it's more transparent than having money go through multilaterals, where we don't exactly know which countries and communities.... Is it the poorest and most vulnerable? What exactly is it going to, in which portions, and how is it split up? We don't have all of that information.

I think those are the main barriers there.

Ms. Julie Dzerowicz: I recall that shortly after coming into office we gave \$400 million towards.... I thought it was for poor countries to adapt, or for climate change mitigation.

Do you recall that? I thought there was a big announcement. I retweeted it. I was really excited about it.

I'm surprised to hear that we're ranked 16 out of 23 in terms of being supportive around this area.

Can you comment on that? I should know this, but do you happen to be familiar with it?

Ms. Naomi Johnson: To be honest, I would have to check that as well. We have a big spreadsheet of the entire breakdown of the \$2.65 billion. Certainly there have been some initiatives for adaptation.

I can tell you, though, that ranking 16th was in terms of our fair share of giving. In terms of adaptation, we're about 10th among 23 provider countries. I'll note that eight of those countries give more than 50% towards adaptation.

Again, that's how we're funding our money, through these different channels. That's where the challenge lies.

The United Nations Environment Programme has estimated that we'll need between \$140 billion U.S. and \$300 billion U.S. annually by 2030 for adaptation alone. When you think that collectively donor countries have agreed to give \$100 billion by 2020, which includes mitigation financing, you can see this growing adaptation funding gap.

Ms. Julie Dzerowicz: Okay.

The Chair: You're down to 10 seconds.

Ms. Julie Dzerowicz: Thank you so much. That was excellent.

The Chair: Monsieur Godin, we'll go back to you.

[*Translation*]

Mr. Joël Godin: Thank you, Mr. Chair.

My question is for Mr. Balasubramanian, who is joining us by video conference from Halifax.

I will continue with my question about green technologies.

The public believes that industry is very advanced, but is slow in implementing the technologies. It is the same as for any other consumer product being put to market. We are familiar with the product and the advances in technology, but we are still studying business opportunities.

Do you know of any green technologies that are just starting to be implemented, but which could be deployed more quickly in order to reduce greenhouse gas emissions and achieve our objectives?

• (1640)

[*English*]

Mr. Hari Balasubramanian: I'll try to summarize a couple of thoughts around the comments from Mr. Godin.

One, a carbon tax is not a silver bullet. We're at a point where we need all hands on deck, and all solutions we can come up with to get to the solution that you talked about, a 1.5-degree future by 2050.

I also think that it's a mischaracterization of the IPCC special report and the science around climate change that emission reductions are going to get us to that target. IPCC, in its special report, actually said that one of the astounding factors is that in any scenario to get to 1.5 degrees, we have to reduce to a zero-emission future, and come up with carbon dioxide reduction strategies, which essentially means to suck carbon out of the atmosphere.

The only large-scale carbon dioxide reduction strategy in the world, as we know it, is nature. Natural climate solutions can make up to 30% of the solution to suck carbon out of the atmosphere and get us to that future.

There is advancement in the private sector companies that we work with on lowering their emissions in technology, but that's not going to get us to the solution. Lower emissions and fossil fuel extraction are not going to get us to our goals. We need investment in technology that gets us to zero, and net positive emissions in order to meet the goals that we've set for ourselves and to hit the targets.

I'll lean a little bit into some of the conversation from the other interviewer. Canada is well positioned, in both the private space and the public space, to invest in those natural climate solutions. That's going to be a great way for us to come up with some of the technological capacity and technical solutions in order to get to the goal.

There is no way that by 2030 we're going to come up with large-scale carbon capture and storage technology, from an industrial perspective, even though all the fossil fuel companies in the world that I know of are working hard on that. We're going to get there by investing in reforestation, protecting forests, helping indigenous people in the Amazon, and protecting the largest carbon sinks we have on our planet.

[Translation]

Mr. Joël Godin: In short, a number of tools have to be implemented to achieve our objectives.

Thank you very much.

I will give the rest of my time to my honourable colleague Mr. Blaney, the member for Bellechasse—Les Etchemins—Lévis.

Hon. Steven Blaney (Bellechasse—Les Etchemins—Lévis, CPC): Thank you very much.

Thank you for welcoming me to the committee.

My question is also for Mr. Balasubramanian.

In terms of climate change, people always say that we need to think globally, but act locally. You are an ecoadvisor. When you advise businesses, do you recommend that they invest to improve electricity distribution networks in the country, for instance, to avoid construction in flood zones or to prevent natural disasters?

We agree that we need to reduce greenhouse gases and transition to green energies, but we also need to prevent natural disasters. In that sense, this is also an economic opportunity to invest in infrastructure.

Is that something you explore as an ecoadvisor?

[English]

Mr. Hari Balasubramanian: We definitely are. There are a couple of things there.

One, I disagree with the notion that we need to think globally and act locally. We need to think everywhere and act everywhere, because we're getting to the point that it's a critical issue.

I do agree that we need to think about our electricity distribution and the emission factors of the energy we're using at a local level. There are good examples of how that has fluctuated in other jurisdictions. We work a lot in Chile. The connection of the northern and southern grids has changed the emission factor of the industrial and mining operations in the north. However, combined with that, a mass investment in solar infrastructure in the driest, brightest desert in the world has also contributed to that reduction in emissions. Entering new renewable sources of energy into the grid is also reducing the emission factor drastically.

In terms of the investment side in technologies, I definitely agree. BlackRock estimated last year that global infrastructure investment

by 2030 is going to be up to \$96 trillion. We have a very strong position that a large portion of that has to be for green infrastructure.

I heard from my colleague who was talking about the scale of investment potentially in adaptation versus mitigation, and that's very true. Historically, we've invested more in mitigation, because we thought we could address the problem head-on. The reality is that we're going to need to adapt regardless. There's going to be a huge global spend with large dollar values and project finance on coastal infrastructure, and green infrastructure development. I think countries, companies and individuals that get ahead of the game are going to be in a future-positive climate position but also in a well-placed economic position.

• (1645)

The Chair: We'll need to leave it at that point.

We'll go over to Mr. Bossio.

Mr. Mike Bossio: Thank you, Chair, for this opportunity.

There are a couple things I want to speak to.

Mr. Warawa alluded that for B.C. there was no difference, essentially, in putting a price on pollution.

Mr. Balasubramanian, we just recently heard from a Nobel laureate in economics who referred specifically to British Columbia's price on pollution as a great example of effective climate policy. British Columbia's direct price on carbon pollution has been in place since 2008. Analysis suggested the policy reduced emissions anywhere from 5% to 15%. Meanwhile, provincial real GDP in B. C. grew by more than 17% from 2007 to 2015, outpacing the rest of Canada. Per capita gasoline demand dropped by 15% between 2007 and 2014.

Does that sound to you as though it's made no difference? Would you agree that this Nobel laureate in economics has something right in those comments?

Mr. Hari Balasubramanian: Is that to me or the representatives?

Mr. Mike Bossio: It's for you, Mr. Balasubramanian.

Mr. Hari Balasubramanian: I think I agree. I don't have the details behind it. I haven't done the research myself, but from a quick look on Google, I found the same sort of information, and I saw the Nobel laureate's position on B.C. as having a prime policy move in this direction. From the information I have, I would agree with you.

Mr. Mike Bossio: It's also been said here today that a price on pollution isn't a silver bullet. It isn't the answer. No, but it's one piece of the puzzle. The investments that Canada is making in transit, in innovation, in green infrastructure, in water and wastewater systems, in lowering emissions, in wetland development, and with \$1.3 billion in protected spaces are, together, going to act to get us to where we need to be, and actually, as you just mentioned a minute ago, the more we can do on protected spaces, as well, the more that is going to act as that carbon sink to reduce carbon in the atmosphere.

Would you agree with that?

Mr. Hari Balasubramanian: I fully agree with that. I think this argument that the price of pollution is going to increase prices and we don't know where that money is going to get spent is the wrong side of the argument to be on. I think the real discussion is about how we make sure the money we generate is spent on that low carbon future. That's about protecting spaces as natural carbon sinks. That's about natural climate solutions across the board. That's also about investing in all the things that you said in terms of a zero- or net-positive carbon future. To me the argument that the price isn't going to make the change is a fallacy, because it's where the money goes and how we direct it, and we should spend more time thinking about that.

Mr. Mike Bossio: That leads me exactly to the next point, that this price on pollution will actually act as a catalyst to investing in those carbon reduction technologies. We see, actually, a perfect case in point. There's a fantastic project going on in B.C. right now that is taking carbon from the atmosphere and turning it into gasoline that can actually be used in any vehicle, plane, or whatever the case might be that burns gasoline. It's a very highly refined gasoline, so it actually becomes a carbon-neutral product. Is that not an example? Do you have other examples out there that you're seeing through your own investment portfolio of companies that are moving in the same direction? Do you see that this is acting as a catalyst?

Mr. Hari Balasubramanian: Every time you see the marginal value decrease, that's a prime space for innovation. I think it will pressure companies to innovate more in spaces of a low-carbon future. One of our clients, again, was driven through a carbon corporate policy that we developed for them back in the early part of this decade, and they were very interested to look at how they could address mitigation and adaptation through their corporate philanthropy. Through their corporate operational program, we were able to convince them that operationally they needed to switch part of their business to do R and D on climate change mitigation and adaptation, which resulted in a large investment in carbon capture and storage and natural climate solutions for mitigation through their operational—

• (1650)

Mr. Mike Bossio: That leads me to the next point, that working through this raises a price on pollution. You've shown with the BHP investment that industry follows very quickly behind when these price mechanisms are put in place and they see clarity around that mechanism. Do you have other examples of that?

Mr. Hari Balasubramanian: I would say that sometimes industry and investors drive the agenda as well. We have examples—which I can't name—of our clients encouraging the studies that have been put forward to develop a tax in a country, because they see an economic opportunity for those companies that are high emitters and that are going to have to pay the price, but they see other market opportunities for them to make more money as businesses.

I think who drives the ship doesn't really matter, and sometimes it's the private sector that actually drives the policy.

We should encourage—

Mr. Mike Bossio: How quickly is that innovation happening, immediately, to reduce their emissions to realize the profit value in that mechanism?

Mr. Hari Balasubramanian: They do it in two ways.

They realize the profit value by reducing their own emissions, but they also capitalize, if it's an emission trading scheme, for example, to create a trading scheme in which they are primary actors and they can trade the credits as well.

Mr. Mike Bossio: They're realizing operational and.... I lost my train of thought.

The Chair: You're out of time.

Mr. Mike Bossio: Sorry. That's good.

Thank you very much.

The Chair: It's a good place to stop

Mr. Hari Balasubramanian: They realize their own operations and additional revenue streams, definitely, yes.

Mr. Mike Bossio: Right, exactly. Thank you.

The Chair: For our final round of questions, Mr. Stetski, you have three minutes.

Mr. Wayne Stetski: Thank you.

I'll go back to Ms. Johnson, and I'll just repeat the question quickly.

What can we learn, or what should we be doing in Canada, based on what you've seen in other parts of the world, to be better prepared for climate change with respect to agriculture?

Ms. Naomi Johnson: Certainly, we know that the poorest and most vulnerable are impacted dramatically more by climate change, and yet they have had very little responsibility for it. We are seeing larger impacts around the world, impacts that we may start to face more of. I think increasingly we're starting to see weather extremes, storms and flooding that farmers are having to deal with here.

I think we have technology, we have knowledge and we have crop insurance. All of these things are very helpful for our farmers here in Canada. When we talk about small-scale farmers around the world, these are usually farms with zero mechanization, little access—particularly if you're a woman—to market and farming information, and no forms of insurance or very little opportunities for investment. There are some differences to how people recuperate and how resilient they are to those consequences.

I'll just add that we know that, in other parts of the world, what happens with climate change has broader global impacts. It affects our economies. It affects our trade. It affects our markets. It contributes to conflicts, and it contributes to our refugees, which is part of our aid budget as well. We really need to recognize that we need a global solution and we need to do our part, because it all comes back here as well.

Mr. Wayne Stetski: What role do you think government should have in helping to “proof” agriculture from climate changes going forward?

Ms. Naomi Johnson: I think there are a number of things we could do. I think, certainly, we should support our farmers in finding cleaner technologies. Many of them are using amazing technologies now that allow them to reduce their emissions. We should offer support for those kinds of things.

Also, it would be useful to help form groups to support small enterprises or farming groups to share some of that knowledge and know-how with farmers around the world.

The Chair: You have 30 seconds.

Mr. Wayne Stetski: Just quickly, you mentioned right at the end of your talk that you were co-chair of the Canadian coalition, and then I lost track of the rest.

Ms. Naomi Johnson: It's the Canadian Coalition for Climate Change and Development, called C4D.

Mr. Wayne Stetski: Quickly, what's the role of that?

Ms. Naomi Johnson: That's about 25 Canadian organizations—NGOs and environmental organizations—focusing largely on international climate change in their work, but in the scope of other international work that they do. We come together to share knowledge and influence policy as well.

• (1655)

The Chair: That takes us to the end of this session.

I'd like to thank all our witnesses for being here. We've had some great discussion.

I'd like to remind you that if either of your organizations, or you as individuals, would like to submit a written brief in follow-up to the discussion today, you're welcome to do that. We tend to use 10 pages as a guideline. It just keeps things at a readable level, but it's not a hard requirement. If you do want to submit any additional information, please reach out to our clerk.

I'd like to welcome Mr. Blaney to our session.

With that, we're going to suspend for a few minutes. We're going to go in camera for some committee business. We'll suspend and be back in a minute.

[Proceedings continue in camera]

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