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Chair: The Honourable Judy A. Sgro





## Standing Committee on International Trade

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• (1300)

[English]

**The Chair (Hon. Judy A. Sgro (Humber River—Black Creek, Lib.)):** I call the meeting to order. We have a very full agenda today. Welcome to meeting number 31 of the House of Commons Standing Committee on International Trade.

Today's meeting is webcast and is taking place in a hybrid format, pursuant to the House order of January 25, 2021.

Pursuant to Standing Order 108 and the motion adopted by the committee on Friday, March 12, 2021, the committee will resume its study of Canada's exports of environmental and clean technology goods and services.

Before us today as witnesses we have, from Foresight Cleantech Accelerator Centre, Jeanette Jackson, chief executive officer; and from the Forest Products Association of Canada, Kate Lindsay, senior vice-president of sustainability and environmental partnerships, and Mahima Sharma, director of environment, innovation and mill regulations.

Ms. Jackson, you have the floor, please.

**The Clerk of the Committee (Ms. Christine Lafrance):** Maybe you can start with the second witness on the list, because I think Ms. Jackson has to connect the microphone on her computer.

**The Chair:** All right. Then we'll go to Ms. Lindsay.

Ms. Lindsay, we turn the floor over to you, please.

**Ms. Kate Lindsay (Senior Vice-President, Sustainability and Environmental Partnerships, Forest Products Association of Canada):** My colleague, Mahima Sharma, will be starting off.

**The Chair:** Okay.

**Ms. Mahima Sharma (Director, Environment, Innovation and Mill Regulations, Forest Products Association of Canada):** Thank you, Madam Chair.

My name is Mahima Sharma and I am the director of environment, innovation and mill regulations at the Forest Products Association of Canada. I am here today with my colleague, Kate Lindsay, FPAC's senior vice-president.

FPAC represents Canada's wood, pulp, paper and wood fibre-based bioproduct manufacturers. We're an \$80-billion industry directly employing 230,000 Canadians and supporting another 600,000 Canadian families indirectly in 600 communities.

FPAC sees opportunity for our sector to be a solutions provider in supporting the federal government's goals for a green economic

recovery. As we map the path to net-zero carbon by 2050, the sector continues to pursue opportunities toward next-generation biorefinery capabilities and the development of new biosourced products for use here in Canada, and also for global export, with the U.S. being a more immediate export market.

The following are two great examples of clean technology and product development going on in Canada.

Arbios Biotech, a joint venture between Licella and the integrated forest products company Canfor Pulp in Prince George, B.C., converts end-of-life wood and biomass into biocrude oil. Earlier this week, this joint venture announced a new global alliance with Shell Catalysts and Technologies, which provides the capability to upgrade biocrude into next-generation biofuels and biochemicals such as transportation fuels for heavy-duty vehicles and aviation in one continuous, efficient process.

One of our proudest moments through this pandemic, with the support of Natural Resources Canada and Canadian scientists and researchers at FPIInnovations, has been the development of a biodegradable non-medical mask from what would have otherwise been wood waste, a Canadian innovation and first of its kind in the world. Turning wood residues into low-carbon, value-added products such as face masks is another way Canada's forest products sector can help us power green recovery while supporting the Canadian government's efforts to reduce single-use plastics.

These first-in-kind technologies and innovative solutions offer global solutions from Canada's forest products sector. These are just a few examples that can further enhance the made-in-Canada brand with the potential to export clean technology and bioproducts on a global scale.

I will now turn our presentation over to my colleague, Kate Lindsay.

**Ms. Kate Lindsay:** Thank you, Mahima.

I will provide just one more example of a positive disruptive clean technology product gaining momentum here in Canada, and that is mass timber and tall wood buildings. In addition to the societal benefits of using wood, mass timber provides enhanced benefits of carbon storage, displacement of more emission-intensive building materials, as well as showcasing the innovative design aspects of wood.

Canada now has a number of companies that play a role in the global mass timber construction space, with facilities located in Quebec, Ontario and British Columbia currently. As an example, Quebec's Nordic Structures recently supplied the glulam beams and cross-laminated timber, or CLT, for a college being built in Houston, Texas. The wood for the prefabricated beams and CLT panels was grown in northern Quebec, manufactured in Montreal, and sent to Houston by rail to lower the transportation greenhouse gas emissions. This is just one example where Canadian innovation and manufacturing, as well as integrated supply chains, are allowing Canada to supply these excellent carbon-sequestering products to the world.

We see the recent U.S.-Canada greening government initiative as a great example of where forest products, both wood construction and the bio-based products my colleague spoke of, can contribute to positive changes through the value chain.

Other areas where the government can show support to advance these opportunities include, first, recognizing that Canada's forest products sector is a key contributor to a global low-carbon economy, with great potential to further develop the bioeconomy and export market. Second, the federal government should recognize and promote Canada's world-leading forest management practices with global customers and other governments. This would avoid any unnecessary and additional regulatory requirements that are creating confusion and a challenging investment climate. Finally, there are some key policy and programmatic areas, including modernized building codes, procurement strategies that recognize low-carbon products, ensuring that government funding programs are readily accessible across the sector, and reliable transportation and supply chain networks.

We want to thank you for the opportunity to speak with you today. We look forward to answering any questions and following up with you in the future.

Thank you.

• (1305)

**The Chair:** Thank you very much, Ms. Lindsay.

We move to Ms. Jackson, please.

**Ms. Jeanette Jackson (Chief Executive Officer, Foresight Cleantech Accelerator Centre):** Good morning. I'm assuming everyone can hear me this time.

**The Chair:** Right now it's fine. Thank you.

**Ms. Jeanette Jackson:** That's glorious. Thank you for having me.

I wish to acknowledge that the lands on which our office is located are part of the traditional unceded territory of the Musqueam, Squamish, Tsleil-Waututh and Tsawwassen nations.

Foresight is Canada's clean-tech ecosystem accelerator. We bring together partners to identify, commercialize and adopt the clean technologies needed to support a global transition to a green economy. The innovation community is the heart of everything we do, supported by our partners in industry, academia, government and, of course, the investment community. Our whole mandate is to po-

sition Canada as a global leader in clean-tech innovation through programming and relevant initiatives.

I'd like to start with a few statements and applaud the efforts to position Canada as this global leader. To expand clean-tech innovation and adoption, we need to better connect Canadian clean-tech companies to global markets and investors, and government agencies play a key role in a few areas.

The first is around policy and partnerships. The Canadian government has an opportunity to provide thought leadership. An example is through our progressive carbon tax. Through thought leadership, we create confidence in the markets for international buyers and investors to come to Canada because of those types of policy initiatives.

We also want to look at trade agreements. CETA and other progressive trade agreements will also allow us to have better relationships with these regions and ensure that clean-tech ventures understand the best practices to enter those markets and do business.

I'd also like to highlight some of the national strategy opportunities. We've seen lots of great conversations between Canadian and European governments, as an example, on how hydrogen, CCUS and the bioeconomy can play a significant role in both of our economies through collaboration, understanding the needs of each of our respective regions and honing in on what innovation opportunities we can export.

We also need to look at adoption. If we're truly going to scale clean-tech ventures in Canada, we do need a strong domestic procurement incentive program. Really, it's those demonstrations that allow us to home-grow our solutions in Canada and showcase those solutions internationally.

We've also been working on some other adoption opportunities through our SDG connect program in partnership with the trade commissioner service. This strategic matchmaking gives an opportunity for international buyers to showcase to Canadian innovators what their needs are and, again, create opportunities for Canadians to innovate on a global scale and to export.

The next bucket is on capital. We've seen lots of different international mechanisms that really create strong capital environments for early-stage and later-stage investments. It's also important to have strategic investor matchmaking sessions profiling Canadian ventures in all of the respective regions where their technologies could apply.

The next bucket is around innovation. While we are starting to see many clean-tech companies scale, it's important that we have a really strong, robust funnel of earlier-stage ventures as well. I think we need, as a collective, to dig in and ensure that the number of high-quality early-stage ventures are problem-driven and understand the opportunities both domestically and globally. Of course, programs from FedDev and provincial government agencies can really help drive these types of initiatives.

Finally, in terms of scale, we need to see more investment in scaling ventures. I know there have been lots of announcements recently on support to do that, but if we can continue to feed that scale-up mentality and that growth mentality to the ventures and provide the support they need, they'll be much better positioned for exponential export growth. While clean tech 101 was challenging for investors, what we've really seen over the last year is that over \$1.7 trillion in capital inflows to ESG and sustainability-related funds have come to fruition, and a record \$23.7 billion of venture capital investment was deployed to 1,255 climate technologies.

A combined policy and capital push is a generational opportunity for Canada. We have great technology developers and terrific universities, but our markets and local investors are insufficient to fully capitalize our ventures to compete on a global scale. In fact, a study by SDTC and Cycle Capital shows that Canadian clean-tech ventures are generally able to raise only about half the equity and debt capital as a comparable clean-tech company in the U.S. and other European regions. We need to get Canada's private capital and industry off the sidelines and massively engaged with our clean-tech entrepreneurs if we want to compete in the decades ahead.

To showcase some success stories, we are succeeding in some areas on the international stage. Occidental has a partnership with Carbon Engineering in Texas. Svante has a great partnership with Chevron in California. MineSense has projects in South America, and Enerkem has waste-to-chemicals plants in Spain and China.

● (1310)

We're starting to see momentum, but how do we turn these four stories into a hundred stories? That's what we're really trying to dig into.

As a bit of feedback, SDTC is a great opportunity and mechanism to showcase the demonstration of technologies. It would be interesting to look at having a first project deployment off site as well, as part of that funding model.

EDC is also great in supporting the export development opportunities. It would be nice to see some more flexibility in financing options. EDC is not empowered to take technology risks and below-market returns.

Global Affairs has also been a great strategic partner for us in our ventures. We work very closely with the trade commissioner service. Things like industry matchmaking events or SDG connect events are a great opportunity to profile Canadian ventures and position Canada as that global leader.

ECCC has also been very supportive across Canada in supporting CETA workshops. These types of programs help educate all the

different stakeholders in the community to understand what we need to do in order to do good business and follow all the trade expectations that have been set at the federal level.

Finally, IRAP's pilot program, both domestically and internationally, is another great tool.

In terms of closing remarks, we really are doing everything we can to help SMEs scale at home to help sell abroad, but we need more resources and tools to do that as an accelerator community. We need to scale the supply of export-ready companies and more proactively source overseas companies seeking Canadian innovation.

We propose a ready-to-export training program—an expanded SDG connect program—that scales our pipeline of export-ready companies. We have some opportunities to present the proposals in that regard.

There is also a critical need for further development of relationships between Canada and the global network of clean-tech accelerators in partner countries. This includes the U.S., the EU, Asia and Latin America. These accelerators are beachheads and validation points for our companies to access these global markets and investors. While we have done some of the work in this area off the side of our desks, we'd love to lean in on this with the federal government as well.

Finally, there are some interesting best practices that we can lean in on. Yesterday an article came out regarding the CAN Health model, which can be applied to clean tech. We would love to work with all of you and your various partners and collaborators to see how that model can help clean tech in Canada scale and really position us as export-ready for global markets.

Thank you for having me. I look forward to Q and A.

● (1315)

**The Chair:** Thank you very much, Ms. Jackson.

We will move on to Mr. Lobb for six minutes, please.

**Mr. Ben Lobb (Huron—Bruce, CPC):** Thank you, Madam Chair.

My first question would be for the Forest Products Association.

I think you were talking about the mass timber initiative. We all see the news. We see the price of a two-by-four triple or quadruple in a year or a year and a half.

When somebody is looking at timber versus concrete, what is the value proposition? This is an export opportunity.

**Ms. Kate Lindsay:** Thank you for the question.

There is a little difference between the price of conventional lumber right now and the mass timber market. Where we see the real advantages with mass timber are where it can replace some of the other, more emission-intensive building materials, such as concrete and steel. It's really proving to have many advantages as far as its carbon footprint is concerned—there is less carbon footprint. It's prefabricated, in many cases, so construction can happen more quickly. There is a lot of benefit even just in the beauty of the product and the way the inhabitants feel when they're in it. There are lots of different value propositions there.

It's also something that can be made out of some of the waste material of other lumber manufacturing processes. It's a value-added product, which is great to see. It can also be a longer-lived wood product, so there is the ability to store that carbon for longer periods of time instead of it going back into the atmosphere or being landfilled, which is really exciting.

It's something that really was initiated in Europe, but we're seeing it in North America and primarily here in Canada recently. It's just great to see this new adoption of technology.

One of the challenges is having the architecture and construction professions become more familiar with this building product. Lots of great work is going on right now to educate and do demonstration projects.

Then, of course, there are the building codes. Right now we're at mid-rise tall wood buildings, but if those building codes increase, we can have taller wood buildings into the future.

**Mr. Ben Lobb:** From an export perspective on the engineered lumber—the Trus Joists, the manufactured floor joists, the OSB, plywood, MDF and all that stuff—how is that export market for Canadian lumber companies right now?

**Ms. Kate Lindsay:** I'm not our trade expert specifically on this file. I can get back to you with more of the stats on that.

We're definitely seeing increased investment, particularly some in the OSB and siding, so there is a lot more building happening with those products in the North American market. We're even seeing that a couple of our member companies, in particular in British Columbia, have opened facilities that had been closed since the mountain pine beetle outbreak and some of the closures of mills from the recession back in 2007-08.

I think that's a case in point. We're seeing more demand for those products, with those facilities being reopened recently.

**Mr. Ben Lobb:** Do you have anything to do with the cardboard box industry? Do you liaise with anything in that?

**Ms. Kate Lindsay:** There is a separate packaging association, which I'm happy to put you in contact with. We stay in touch. There's collaboration with a number of associations that are within

the same sphere of wood products and associated products. I can put you in contact with that individual if that would be helpful.

**Mr. Ben Lobb:** Okay.

My other question is on biosecurity, and you have already touched on it. In Ontario, my home province, from the west to the east end, we've been decimated by the emerald ash borer.

Yes, this study is looking at the environmental export opportunities, but also—in this particular case, with you here today—there has to be a little recognition of biosecurity with respect to invasive species coming in and destroying the very thing you're trying to export.

Do you work with CFIA? The members of your board of directors are all the biggest players in Canada. Can you explain to us how you work on biosecurity? Is there any discussion on that in your association?

● (1320)

**Ms. Kate Lindsay:** There is, to some degree. We do work closely with our government counterparts at Natural Resources Canada and the Food Inspection Agency on ways—absolutely, trade routes—to minimize the import of exotic invasives. The emerald ash borer that we've seen is a case in point. That work is under way. It's not a core function of FPAC's work, although our member companies and those that use those trade routes are very aware of the requirements.

We also want to make sure.... There are native pest species that we've had significant problems with, such as the mountain pine beetle, the spruce budworm and others. They are having a real impact on trees and healthy forests in Canada, so that's where we have a primary role, to build resiliency into the forest moving forward.

**The Chair:** Thank you very much, Mr. Lobb. I'm sorry, but your time is up.

We'll go on to Mr. Sheehan for six minutes, please.

**Mr. Terry Sheehan (Sault Ste. Marie, Lib.):** Thank you very much for that absolutely fabulous testimony. I was pleased to have you here on our last day, with such great information.

I wanted to drill down on a couple of things. I'm going to start with Jeanette Jackson.

You described some of what your clean-tech accelerator is doing. Could you help the committee understand and give some testimony around a couple of the programs you're developing or have developed and how they differ from current programs? I'll start with the ready-to-export program as it relates to clean tech. What kind of differences are you seeing for those new entrepreneurs or for entrepreneurs who are fairly new and want to scale up? How is your programming different? I'll let you expand from there on the particular programs you touched on.

**Ms. Jeanette Jackson:** Absolutely.

We've supported over 550 ventures across Canada over the last three and a half years. We find there are still too many innovators that are technologies looking for problems. In our new strategic plan and all of our programming, we're reimagining the accelerator model. We're working with industry to clearly identify the innovation gaps they need to reach to achieve a net-zero target. What you do is put that at the start of the funnel in your call for the cohort.

An example would be water. We know we have several large multinationals in the manufacturing space and production space that use a lot of water, and they're looking for innovation to solve specific problems. We actually do calls for those innovators and weed them out, and really help the industry partners better understand and work closely with those ventures to improve the probability of success.

Now, one of the important notes on those calls is that it's not only domestic, but international. We have a pretty strong network through the trade commissioner service, through other networks, where industry partners are looking to Canada. We've become somewhat well known for our ability to innovate in clean tech broadly. Through the programming, we can actually curate and support ventures that have a higher probability of success right out of the gate because they're problem-driven right out of the gate.

On the export readiness side, it's really making sure they have the right team, value-prop business model and competitive advantage to compete, and they're properly funded so they can export at scale. A lot of our programming provides that support or guidance to ensure they are export-ready.

You need to be at a certain threshold. You need to have demonstrated your technology. Your business model has to make sense for that scalable opportunity. We really dig into those specifics.

Clean tech is broad, so now we're starting to break it down and be more proactive in finding ventures that solve real problems, and that people will pay a lot of money for as well.

**Mr. Terry Sheehan:** Thank you for that.

I'm going to switch over to Kate.

First of all, congratulations on the program of creating the PPE masks. It's just amazing.

Are those masks subject to any duties or anything like that as they cross the American border with the new CUSMA agreement?

**Ms. Kate Lindsay:** I'm not aware. It's my understanding—and maybe Mahima can correct me if I'm wrong—that it has just been trialed; it's not in a commercial capacity at the moment.

**Ms. Mahima Sharma:** Yes, Kate, that's correct.

For these masks, I believe phase two has been completed, and there remains one more phase. Right now they're still not being mass-produced, but they are ready to be.

• (1325)

**Mr. Terry Sheehan:** That's good news. I think that's a perfect example. I've seen from the Forest Products Association a really great graphic from the tree and whatnot all the way through to some of the PPE, so congratulations on that.

One of the things we've been talking about, obviously, with the softwood lumber situation, is that it's creating more value added in Canada, and then sending it over there it creates more jobs and more opportunity. I wanted to congratulate you on that.

Could you please define, in your opinion, what are the other opportunities in the forest industry as it relates to clean tech? We've heard testimony from the solar power people. We've heard from the small nuclear power people. Are any of those other technologies being incorporated into the Forest Products Association as a whole?

**Ms. Kate Lindsay:** Mahima, I'll let you answer that first. I might add in after.

**Ms. Mahima Sharma:** Yes, sure.

Absolutely. With biomass—out of wood, low-quality wood residue from the manufacturing process—there is an opportunity for the forest products sector to work collaboratively with other sectors that are looking to reduce their GHG emissions from the fuels they use. More importantly, I want to bring your attention to the 140 capital shovel-ready projects that are ready to go. They're worth \$1.5 billion in economic value. They can further help improve environmental outcomes, strengthen Canada's global competitiveness and create jobs that are much needed in this time of crisis.

**The Chair:** Thank you very much.

I'm sorry, Ms. Lindsay, but I think Ms. Sharma has used up the time.

We go on to Mr. Savard-Tremblay for six minutes, please.

[*Translation*]

**Mr. Simon-Pierre Savard-Tremblay (Saint-Hyacinthe—Bagot, BQ):** Thank you, Madam Chair.

I would first like to give my regards to all the witnesses and thank them for their very enlightening presentations.

My question is for the representatives from the Forest Products Association of Canada.

The Bloc Québécois recently presented a study. It was not conducted by our party but by a third party. It was a fairly important study on maximizing Quebec's forestry potential. We proposed four priority recommendations for the industry. I won't list them now, but I want to tell you that one suggestion was to seize the opportunity of the new U.S. administration in the White House in order to obtain full exemption from all tariffs on Quebec softwood lumber exports to the U.S. In addition, the recommendation was to ensure that the development of the forest industry would be defined as a priority for the Government of Canada, given the strong economic potential and the essential role of forests in the fight against climate change.

What are your expectations of the government now that the Biden administration is in office?

[English]

**Ms. Kate Lindsay:** Thank you for the question. I will answer in English, if you don't mind.

[Translation]

**Mr. Simon-Pierre Savard-Tremblay:** That is not a problem at all. We have an interpretation service.

[English]

**Ms. Kate Lindsay:** *C'est parfait.*

It's an excellent question.

The softwood lumber dispute and prior disputes have remained very problematic for the Canadian industry, but we see more and more now that it's causing harm to U.S. consumers of wood products as well, with rising prices.

FPAC very much supports the federal government's efforts to achieve a Canada-U.S. trade regime with the fewest trade restrictions possible. I will also say that we applaud the Bloc Québécois and the recent forest strategy. We hope that other parties look to pull components of that strategy moving forward as well.

[Translation]

Thank you.

**Mr. Simon-Pierre Savard-Tremblay:** Thank you. I'm not sure whether your colleague would like to add anything.

[English]

**Ms. Mahima Sharma:** No, thank you. I have nothing to add.

[Translation]

**Mr. Simon-Pierre Savard-Tremblay:** Okay.

Have you been consulted recently on this issue?

What steps have been taken with respect to the softwood lumber dispute since Mr. Biden was elected president?

• (1330)

[English]

**Ms. Kate Lindsay:** I personally have not been part of those negotiations. I know our association works closely with the Softwood Lumber Board, which has been having those conversations. We look forward to revisiting those discussions and looking for better outcomes with the new administration.

[Translation]

**Mr. Simon-Pierre Savard-Tremblay:** So you haven't heard of any real changes in terms of a complete exemption from tariffs yet. You have not been informed that there might be an agreement or news on that very soon.

[English]

**Ms. Kate Lindsay:** Not to my knowledge, no.

[Translation]

**Mr. Simon-Pierre Savard-Tremblay:** Thank you.

Of course, there is the expanding market opportunities program, whose objective is to develop international markets for Canadian forest products and to promote the increased use of wood in the construction of mid-rise and non-residential buildings in North America.

However, the 2019 evaluation of this program indicated that it was serving western producers, particularly in British Columbia, much better than eastern producers in Ontario and Quebec. In 2020, about three-quarters of the program's funding went to organizations in British Columbia. That's what we have noticed.

How could this program be improved so that it also benefits eastern producers in a more equitable way?

[English]

**Ms. Kate Lindsay:** I would say that there have been recent gains in market development, particularly with some of the Asian trading partners—China, Japan and Korea—and we're very encouraging of that type of development activity taking place with other global markets, to expand beyond the existing global partners that we have.

We're encouraging the federal government to make that progress to benefit all Canadian forest producers.

[Translation]

**Mr. Simon-Pierre Savard-Tremblay:** Still, do any changes or improvements need to be made to this program? Could some criteria be adjusted so that the program also benefits eastern producers? Clearly, the program has not benefited eastern producers in an equitable manner. So it probably has shortcomings somewhere.



[English]

**Ms. Kate Lindsay:** I'm not the file lead internally at FPAC on this, but I will confer with my colleague Joel Neuheimer, who leads this work. There is a set of recommendations that we've recently put forward, as far as resilient recovery is concerned, which speak to many of the challenges that are in place, whether it's reliable transportation networks, ports, reliable port authorities and so on, moving forward. I'd be happy to provide that in a follow-up, because it's an excellent question.

**The Chair:** Thank you, Ms. Lindsay.

We'll go on to Mr. Blaikie for six minutes.

**Mr. Daniel Blaikie (Elmwood—Transcona, NDP):** Thank you very much to our witnesses for being here with us today.

A recurring theme at this committee over the life of this Parliament has been a contention by many witnesses across many different industries that Canada really stands out in terms of not doing a lot of industrial planning, or sector-based industrial planning. I think what we've heard from a number of sectors is that they'd like to be able to sit down with government and hash out a medium- and long-term plan for their industry and really coordinate government policy with the aspirations of the industry.

Of course, when we're talking about a really important emerging industry, even less emerging now than it was five to 10 years ago, in terms of clean tech, obviously this is important.

Could each of you speak a bit to the way your industry is able to engage with government and the extent to which you feel there should be some more formal planning with government around your industry, whether it's trade policy or certain kinds of domestic policy, such as procurement, which I know has come up already today on several occasions? How can it work within your industry to make sure that there is actually a plan and that the actions of government and the policies of government are reinforcing the development of the industry in a way that's beneficial both to businesses and to workers within the industry?

Are you satisfied that the government is where it needs to be on that? Do you think Canada stands out as not doing as much as our allies and competitors around industrial planning? What do you think those missing pieces are?

I'll start with Ms. Jackson, and then we can go to our witnesses from the Forest Products Association.

Thank you.

● (1335)

**Ms. Jeanette Jackson:** Thank you, Mr. Blaikie, for the great question.

Though our roots are in British Columbia, we've actually supported industry and innovators across the country. However, I'm going to lean in a little on what we're seeing in British Columbia, just as an example.

We did a phase one cluster strategy to identify the real core competencies of the region and what the largest emitters in the province need to do to reach net-zero targets. We identified six areas of inter-

est: water, resource, transportation, built environment, ag tech, the usual suspects.

What we find is that—you are correct—there is not enough capacity for industry to take a step back and reflect on where they really want to be in 2030 and 2050. We obviously have the policy pressure to reach climate targets, but what's the next layer of that? What's the how? How do we set priorities as a collective?

I'll give you an example. Again, 50% of our time is spent on acceleration; the other 50%-plus is actually spent on industry and investor engagement. We proposed an actual energy decision tree to decide where hydrogen, biofuels and electrification fit to help these large emitters transition.

That's just one of many different platforms that could be useful in helping industry make decisions, set priorities and be willing to take the risks where they need to. This can be expanded globally. In fact, we work very closely with FPInnovations on several of these conversations as well.

I'll pass it over to Kate.

**Mr. Daniel Blaikie:** Thank you.

**Ms. Kate Lindsay:** Thank you, Mr. Blaikie.

I'll start, and then Mahima can feed in.

I would say, absolutely, we would look for a sector strategy. I wouldn't say that we've seen that yet to the extent possible. We do see it in some of our competing countries, like Finland and Sweden, where they have very strong forest sector strategies that the government has put forward specifically for climate change targets.

We have an existing bioeconomy framework that we would love to see implemented. Generally, we often see different regulatory or government programmatic areas that are at cross purposes with each other, whether it's low carbon, whether it's conservation agenda, or whether it's inclusive growth. We would absolutely appreciate sitting down with different departments federally to walk through pathways to success and to address some of those challenges.

I'll just see if Mahima has anything to add there.

**Ms. Mahima Sharma:** Yes, thank you, Kate.

As my colleague mentioned, a recent bioeconomy framework was published by the Canadian Council of Forest Ministers in 2017. With that in mind, I want to note that the federal government can play a key role in helping to facilitate and increase the demand for bioproducts. This could happen and be made possible by using better modelling tools, better data management for forest biomass supply that would help researchers understand and quantify the economic or bioeconomy opportunities that exist in Canada, reviewing regulatory processes to ensure that they're updated and appropriate—regulatory duplication and cumbersome regulations hurt the productivity and the competitiveness of the emerging markets—and recognizing relative reductions in GHG emissions from using wood when awarding contracts for public works.

These are just some of the ways that I think government can play a role.

**Mr. Daniel Blaikie:** That's wonderful.

**The Chair:** Thank you very much.

Thank you, Mr. Blaikie.

We move on to Mrs. Gray for five minutes.

**Mrs. Tracy Gray (Kelowna—Lake Country, CPC):** Thank you, Madam Chair.

Thank you to the witnesses for being here today.

I'm going to go to the Forest Products Association first and build on the questioning from my colleague MP Lobb.

You've raised concerns about legislation currently going through the process in New York and California that could harm our forestry exports, if passed into law.

First, what percentage of our U.S. exports goes to California and New York?

**Ms. Kate Lindsay:** I don't have the breakdowns for those two states right now, but the U.S. in total is a significant market for Canada. B.C. and Alberta would be a significant provider for California, and Ontario and Quebec would be a significant provider for the state of New York.

• (1340)

**Mrs. Tracy Gray:** That's fair enough.

It's quite interesting that two very similar laws are going through two state legislatures at the same time. Do you foresee the risk of other states maybe introducing legislation around this as well? Are you hearing that at all?

**Ms. Kate Lindsay:** We are taking this very seriously. We have seen that past procurement laws in the state of California in particular have historically been focused on tropical deforestation. The fact that we're seeing the Canadian boreal forest included in this legislation is very concerning. Canada is a leader. We have the strongest legislation to maintain sustainable forest management and to maintain forests in Canada.

Even the preamble within these two pieces of legislation is very concerning. We believe that it's going to be discriminatory toward Canada, and we want to ensure that it's not passed unless it's

amended to be workable. We want to prevent it from being precedent-setting for other U.S. states.

**Mrs. Tracy Gray:** Thank you. You actually answered my next question, so I'll go to another here.

What effects could this legislation potentially have if it comes into force, specifically around job losses, potentially, in the Canadian industry?

**Ms. Kate Lindsay:** Almost 70% of the area under forest management in Canada is in the boreal forest. It's a significant region where forest management takes place. In particular, there's an anti-forestry ENGO behind this legislation as the co-sponsor. What they are targeting is the northern limit of the forest management area, an area that is important to wood supply, but very important to northern forestry communities, in particular indigenous communities.

This is where you see really important co-management and indigenous-owned forest management operations, such as NorSask or Canadian Kraft in Manitoba, which partners with seven first nations, and in some areas in northwestern Ontario and Quebec where you're seeing joint ventures taking place. That is really where there stands to be an impact and harm to those communities and workers. We know that over 230,000 people are employed in the forest sector, up to a million indirectly employed, and there are 1,400 indigenous-owned forest businesses as part of the forest sector as well.

**Mrs. Tracy Gray:** I understand that the Forest Products Association of Canada is calling on the federal government to go to bat for our forestry sector and those hundreds of thousands of jobs that you refer to. What could the federal government and our trade minister be doing right now to get this issue resolved?

**Ms. Kate Lindsay:** We have been engaging very much with Minister Ng and with Global Affairs Canada. There's been very positive engagement to date with the consulate offices in San Francisco and Albany as well. More discussions are taking place also with Natural Resources Canada. We would say that we appreciate the engagement to date and we know that it may have to ramp up as these two pieces of legislation make their way through the legislative processes, so we encourage more support.

We've also had great support from labour, both Unifor and United Steelworkers, and from more and more communities—both municipal and indigenous communities have also written directly.

We're encouraged by the support, and we look for further, ongoing discussion with Minister Ng and the rest of the federal government.

**The Chair:** Thank you very much.

We'll go on to Mr. Dhaliwal for five minutes, please.

**Mr. Sukh Dhaliwal (Surrey—Newton, Lib.):** Thank you, Madam Chair.

I would echo the comments made by my dear friend Terry Sheehan. It's a fabulous testimony. I also want to thank my friend for wearing a green tie for clean tech.

My first question will go to Ms. Jeannette Jackson. In collaboration with EDC last year, Foresight developed a social media campaign dedicated to recognizing the entrepreneurial women who are leading clean technologies and innovation in Canada. Could you please comment on ways to increase the participation of women in the clean tech sector?

**Ms. Jeannette Jackson:** Absolutely.

We are working very hard on how to incorporate diversity and inclusion across all of our programming, campaigns and initiatives. It's really about relationship building and connecting with communities at a much deeper level. We do that by working with other accelerators because we have a clean technology focus. A lot of other accelerators and innovation communities are more generic—they are health tech, etc. We really lean in with these different partners to have the opportunity to engage once the clean technology companies hit a certain level of maturity.

We have put forward a few proposals to different government agencies for a “women in clean tech” program. MaRS has done some work with the ventures and RBC. We have identified over 50 women who are clean technology leaders across the country.

It's really about capacity and having some bandwidth to lean in on that. We'd love to mobilize some resources to develop and grow that campaign and all the women involved in the clean technology sector.

• (1345)

**Mr. Sukh Dhaliwal:** Ms. Mahima Sharma and Ms. Kate Lindsay, do you have anything to add?

**Ms. Kate Lindsay:** There are similar initiatives under way in the forest sector as well. There is a really big initiative under way called Free to Grow, which is particularly focused on expanding women in the forest sector in Canada at all levels and positions. There are a number of other initiatives under way at different forestry colleges and institutes and lots of informal networks going on. Women in Wood is one that is really growing in popularity.

Just ensuring that there is a safe place for women to join the sector and having, absolutely, an inclusive, diverse workforce moving forward is going to be better for everyone.

**Mr. Sukh Dhaliwal:** Ms. Sharma mentioned net zero by 2050. Could you expand on the role that the forest products industry can play in green recovery? Also, how can the industry play a role on an international goal shared by many of our partners towards net zero by 2050?

**Ms. Mahima Sharma:** Kate, why don't you start this one? I can fill in the gaps.

**Ms. Kate Lindsay:** Sure.

We're well under way in putting together the forest sector contribution to Canada's net-zero pathway by 2050. In particular, we're focusing on the role of the forest, where we can sequester more carbon, and the role of the products. That's what Mahima talked about, with low-carbon alternatives and bioproducts, and also in the facili-

ties, with reduced emissions. There is a lot of great work happening with fuel switching as a result of biomass. Through the transportation network, there's switching from truck to rail and other infrastructure modal shifts.

In addition, the biomass and some of the wood residue is definitely going to help other sectors decarbonize, whether in the production of steel.... A great example right now is one of our mills—the Resolute mill in Saint-Félicien, Quebec. Waste heat from the pulp mill is actually going into a greenhouse to reduce the energy needs of that greenhouse in growing cucumbers.

There are a lot of great examples of the forest sector contributing to a broader net-zero play.

**The Chair:** Thank you very much, Ms. Lindsay.

We'll go on to Mr. Savard-Tremblay for two and a half minutes, please.

[Translation]

**Mr. Simon-Pierre Savard-Tremblay:** Thank you, Madam Chair.

I would like to address the representatives from the Forest Products Association of Canada.

I would like to give you the opportunity to correct a widespread misconception. The forest industry is often associated with clear-cutting. Instead of having an eco-responsible industry, the impression could be the opposite. That behaviour could be extremely serious.

A Quebec documentary, which dates back some 20 years and is entitled *L'erreur boréale*, was made for the National Film Board. The documentary was directed by Richard Desjardins, a well-known artist in Quebec. It was a good picture of the time, but could you tell us how the situation has evolved? Does clear-cutting still happen?

I think this is a great opportunity to reverse a persistent misconception.

[English]

**Ms. Kate Lindsay:** Thank you very much for the question. It's an excellent point.

There is a lot of misinformation and misconception about forestry practices. The most progressive practices today are really around understanding the natural range of variations. Particularly in the boreal forest, for example, fire is a dominant; it's a disturbance-driven ecosystem, largely fire-driven. Forestry is now mimicking the frequency of fire and the patterns of fire so we can work within what's called ecosystem-based forest management.

We're also seeing that so many of the other values that are important for wildlife species, for soil and for water, are being incorporated into forest management planning, as well as all the value that is locally provided. For the most part, in Canada, this is being done on public land, so local voices, indigenous communities, have the opportunity to feed into those long-term forest management plans, which are done over 100 to 150 years. Therefore, very much so, clear-cutting is not the same image in our mind that it might have been 30 or 40 years ago. It's really about sustainability, ecosystem-based management and resilient forests for the future.

• (1350)

**The Chair:** Thank you very much, Ms. Lindsay.

To our witnesses, we have to move on to our next group of witnesses. We have quite a few departmental officials who are coming up for the next part of our meeting.

Thank you very much to the witnesses we had today on this segment. It has been very informative.

I will suspend for a few minutes until we manage to get everybody set up with their microphones.

• (1350)

(Pause)

• (1355)

**The Chair:** We call this meeting back to order.

We welcome officials from the Department of Foreign Affairs, Trade and Development, the Department of Industry, the Department of Natural Resources, the Department of the Environment, and from the Business Development Bank of Canada and Export Development Canada.

It's a big group of witnesses, and we very much look forward to their comments.

Before I open up the floor to our witnesses, Monsieur Savard-Tremblay, you had a very quick point you wanted to make.

[*Translation*]

**Mr. Simon-Pierre Savard-Tremblay:** Madam Chair, I will be brief, because the witnesses probably have a lot to say.

Following the motion I introduced in connection with Bill C-216, you said last Friday that you were prepared to find a way to move up our consideration of it.

Where are you in your thinking?

[*English*]

**The Chair:** Thank you. We are still working on it.

All right, Ms. Kwan, you have the floor, please.

**Mr. Daniel Blaikie:** Madam Chair, perhaps I might just have a quick intervention before we get started.

**The Chair:** Please, very quickly, we have a lot of important information here.

Go ahead, Mr. Blaikie.

**Mr. Daniel Blaikie:** I appreciate that. It's just with respect to the last round of questions. I know that usually if my colleague from the Bloc gets to his next question, that courtesy is usually extended.

I do want to get on with the meeting, so I'm not going to make any more of it for now. I know you have many things to manage in the course of a meeting, but it's a practice that may become contentious were it to continue, so I just felt obligated to raise that with you.

**The Chair:** Thank you, Mr. Blaikie. I should have clarified that. I was supposed to have stopped at 1:45. I'm always anxious to try to get everybody a chance to speak as much as possible, and I missed the 1:45 deadline, so that's where we're at.

Thank you for raising both of those issues, both members.

Okay, Ms. Kwan, you have the floor, please.

**Ms. Rosaline Kwan (Director General, Trade Sectors, Department of Foreign Affairs, Trade and Development):** Thank you, Madam Chair.

Good afternoon. I'm Rosaline Kwan, director general of the trade sectors bureau of the trade commissioner service at Global Affairs Canada. It's my pleasure to be here with you today. As a representative of Global Affairs Canada, please allow me to say a few words about the trade commissioner service, the TCS for short.

The TCS is a network of international business professionals who help Canadian businesses grow through international sales, commercial partnerships and investment. The TCS has over a thousand trade representatives working in over 160 cities around the world, including in offices across Canada, to help Canadian firms succeed in entering or expanding in international markets. Over a hundred of these trade commissioners have responsibilities that include supporting Canadian clean-technology firms.

Within the federal clean-tech ecosystem, the TCS is just one player in the wider ecosystem of clean-growth partners that includes colleagues who are with us here today: NRCan, ISED, ECCC, SDTC and our international trade portfolio partners EDC, BDC, CCC and Invest in Canada. We all work closely together to help start-ups and scale-ups of clean-tech firms. Witnesses here today are all part of the clean growth hub, a unique whole-of-government focal point for clean technology, dedicated to supporting Canadian companies to navigate federal programs and services.

As this committee has heard through the input of industry witnesses, domestic efforts to scale and finance clean-tech companies are key to increasing clean-tech exports, and we collaborate closely on this effort.

ISED supports Canadian clean-tech businesses through a number of programs and initiatives, including the strategic innovation fund and the recently announced net-zero accelerator. The strategic innovation fund has been a critical tool to growing Canada's economy while advancing Canada's green industrial strategy and transforming the economy for long-term, cleaner growth. The strategic innovation fund has invested over a billion dollars in large projects with a significant clean-tech component, and the net-zero accelerator will further drive investment to large emission-reducing and job-creating projects across every region of Canada.

Budget 2021 includes funding of \$1 billion over five years to leverage private investment towards large, transformative clean-technology projects. This initiative will eliminate risk from decarbonization projects for traditional lenders, bring down the cost of capital and make many of these large-scale projects more economically feasible while decarbonizing the Canadian economy and creating new jobs.

Other partners I've mentioned include SDTC, which supports small businesses and start-ups in their commercialization efforts. As of March 2020, SDTC has provided \$1.28 billion in funding to 447 projects. SDTC-supported companies have generated \$2.7 billion in annual revenues, created more than 14,000 jobs and brought 126 new technologies to market, reducing greenhouse gas emissions by an estimated 19.3 megatonnes annually.

BDC has the only dedicated pan-Canadian clean-tech financing team, with Canada's largest clean-tech fund of \$600 million. Through this team, BDC offers clean-tech entrepreneurs equity and financing solutions to support and accelerate their growth and operations. As of March 2021, \$370 million has been committed.

NRCan helps Canadian companies develop new, innovative technologies and products to transition to a low-carbon future. The department also assists Canada's natural resources sectors, helping them to improve their efficiency, adopt clean technologies and develop our resources sustainably. NRCan has several clean-tech support programs and initiatives to support resource industries and value chains.

ECCC has policies, regulations and funding that spur the development and scale-up of our clean technologies domestically and abroad. ECCC helps Canadian exporters of environmental and clean-tech goods and services expand into foreign markets by leveraging ECCC's international environmental co-operation networks with foreign governments and stakeholders, and through its multilateral and bilateral initiatives, including environmental co-operation agreements or environment chapters of free trade agreements.

Canada's export credit agency, EDC, plays an important role in supporting Canadian exporters through the provision of innovative financial solutions. EDC is the largest provider of financial solutions for Canadian clean-tech companies looking to expand their businesses internationally. In 2020, EDC served 288 clean-tech companies and facilitated \$4.6 billion in trade in the clean-tech space and close to \$14 billion since 2012.

• (1400)

Canadian firms are leading the way in the development of the clean technologies the world is seeking. The environmental and clean-tech sector contributed \$70.5 billion to GDP in 2019, provided more than 341,000 well-paying jobs and is growing faster than the rest of the economy.

The sector exported \$13.5 billion of environmental and clean technology products in 2019, accounting for 1.8% of total Canadian exports. Three-quarters of these exports were destined for the United States. Europe, with \$1.7 billion, and Asia, with \$1.2 billion, were the other important markets for Canadian environmental and clean-tech products and services.

Canada's modern free trade agreements provide Canadian clean-tech companies advantages by eliminating tariffs, creating an equal playing field for service providers, improving labour mobility provisions, and expanding access to government procurement opportunities when applicable, among others.

For the trade commissioner service, promoting clean tech in global markets is a key priority, as you've heard from many of the witnesses through the sessions you've had, a priority supported by our clean-tech international business development strategy. This strategy was first announced in budget 2017 and renewed through budget 2021. It has proven successful at helping Canadian clean-tech firms tap into export opportunities and the rapidly growing pools of global climate finance. Since 2017, this strategy has helped generate more than \$83 million in commercial successes by Canadian clean-tech firms, helping them to scale internationally.

Our trade commissioner service programming and services have supported hundreds of Canadian clean-tech firms across Canada to secure international research and development partnerships and diversify into global markets. Through our CanExport programs, we have provided \$10 million to support over 260 clean-tech projects. Since 2019, our Canadian technology accelerator programs have supported over 85 of Canada's most promising clean-tech firms to improve their access to global markets.

The clean-tech sector represents significant opportunities for Canadian companies and the economy as a whole. The collaborative efforts of the TCS and all our partners in promoting clean technologies position Canadian workers and businesses to be among the leaders in the increasingly low-carbon global economy.

Thank you for the opportunity to join you today. We look forward to your questions.

• (1405)

**The Chair:** Thank you very much, Ms. Kwan. It was great to see you again.

We'll go on to Mr. Aboultaif, for six minutes, please.

**Mr. Ziad Aboultaif (Edmonton Manning, CPC):** Thank you, Madam Chair, and thanks to the witnesses.

This question is for Ms. Kwan, since she spoke first on behalf of the departments.

We have a trade deficit of \$6.4 billion on complete trade of \$33.5 billion, and 70% or more of that export goes to the United States. That means the deficit is mostly with the United States. In the 2021 budget, there's \$21.3 million over five years to enhance the export and activities of ECT.

In your honesty, do you believe the \$21.3 million over five years is going to really help us to at least balance the trade, which is significant, \$6.4 billion or about 20% overall?

**Ms. Rosaline Kwan:** Thank you, Mr. Aboultaif, for your question.

Yes, we did get a renewal through budget 2021 for the resources we have in the trade commissioner service. That includes trade commissioners in Canada at regional offices. That includes trade commissioners abroad in international key hubs where we see the greatest opportunity for Canadian clean-tech products and services. As I mentioned, these resources were put in place first in 2017, and as I outlined, we've seen through our metrics and tracking that they have generated promising and very positive results.

What we do with our resources, starting from within Canada, is supporting our Canadian companies and working with them and linking them up through the network that you see here with us today and through their reach—you can imagine how expansive that could be and that could be beneficial to Canadian companies—to the international piece where we have trade commissioners locally in place to help connect them with the opportunities abroad.

**Mr. Ziad Aboultaif:** The \$21.3 million is going to be spent on hiring more people from the public sector in order to help and assist. What about the industry? How are you going to help the industry to enhance the export and do more, when the trade deficit has not been getting any better since 2016? What makes you believe that what we're doing is working, and how are we going to really, again, balance those trade deficits?

• (1410)

**Ms. Rosaline Kwan:** Thank you. You raised a really important point. Perhaps I could address that first by talking about the trade diversification strategy. As you mentioned, we want to be able to help our companies grow internationally to build up their capacity

to succeed globally. Maybe I'll pass it over afterwards to my colleague at ISED, Mr. Noseworthy, to talk about programs that will be put in place, that have been put in place, to support Canadian industry.

As part of the trade diversification strategy, as you might have heard from other witnesses as well, we look very much at enhancing tools and opportunities for our Canadian companies and increasing the capacity of our own network to be able to serve our Canadian companies. We look at where we trade, whom we trade with, what we export and who exports, including very much supporting some of the themes that were talked about in the session just before, in promoting women leadership, under-represented communities, etc.

We have a number of programs. I talked about CanExport and the funding that's gone into that to help Canadian companies make connections abroad, internationally. Also, there are tools that we've built, and we continue to build, to be able to work with our companies and help them access information at their fingertips through websites and information tools, as well as through the resources of our network, as I've explained. The trade diversification aspect is important, because it does help us access more markets and tap into more opportunities internationally.

Maybe I'll stop there. I will invite my colleague Mr. Noseworthy to talk a bit about programs under ISED that are helping Canadian companies in this area.

**Mr. Andrew Noseworthy (Assistant Deputy Minister, Clean Technology, Department of Industry):** Thank you for the question.

I'll start by saying that the clean-technology sector across Canada is undergoing a transition. We're starting to see companies scale, but the majority of them are still quite small but highly dependent on export markets.

There have been two key pieces that, I think, specifically address how the companies in this space can help build Canada's trade capacity. The first is that we've been working very closely with them to assist them in developing first commercial demonstration projects in international markets. Collaboratively with the trade commissioner service, we did an exploration trip to India with a number of companies related to water technologies about a year and a half ago in that space. Both the IREP program and SDTC are capable of supporting companies as they move in that space.

**The Chair:** Thank you very much, Mr. Noseworthy. I have to move on.

Ms. Bendayan, go ahead, please.

**Ms. Rachel Bendayan (Outremont, Lib.):** Thank you, Madam Chair.

I know that we have a very impressive list of witnesses before us and not a lot of time. I may therefore ask in some of my questions that information be tabled with the committee.

First, Ms. Kwan, I'm thinking, in particular, of your reference regarding BDC's assistance in scaling up clean-tech companies. If there is any information that you could provide to the committee in writing regarding how many companies are in those initiatives, that would be very helpful.

I'm also interested in hearing about how discussions and development with our American counterparts are going about establishing harmonized standards for electric vehicles. I know that work began some years ago and is ongoing. I'm not sure if anybody is able to speak to that at this time.

**Ms. Rosaline Kwan:** Madam Chair, we'll be happy to provide some statistics and information on BDC. If we have time, we have Susan here, who could very much talk about that, maybe briefly.

On the U.S. harmonized standards and e-vehicles, in terms of specifics, I wouldn't have those on hand. I was going to invite our colleagues over at NRCan, Mr. Dufour perhaps, to talk a little bit about our work related to the importance of e-vehicles and the battery—

• (1415)

**Ms. Rachel Bendayan:** That would be great. We have very limited time.

**Ms. Rosaline Kwan:** Maybe I'll invite Mr. Dufour, and if we have one minute left or so, we can invite Ms. Rohac as well.

**Ms. Rachel Bendayan:** Go ahead.

**Mr. Daniel Dufour (Director General, Innovation Branch, Department of Natural Resources):** Thank you, Rosaline.

I think this one is better addressed by my colleague from ISED.

**Mr. Andrew Noseworthy:** My apologies. I have no specific information in this space and have not been dealing with the issues around the U.S. market.

**Ms. Rachel Bendayan:** Okay, that's not a problem.

I wonder, then, if we could hear from any of the officials on how discussions are moving forward in terms of getting electricity grids. I know that President Biden and our Prime Minister did have the opportunity to discuss the export of some of our electricity to the United States. I'm not sure if anybody has knowledge about those initiatives.

**Ms. Rosaline Kwan:** Thank you.

I would perhaps invite Mr. Presutti.

Would you have any comments in that regard?

**Mr. Marco Presutti (Director General, Low Carbon Energy Sector, Electricity Resources Branch, Department of Natural Resources):** Certainly. On connecting clean power, when it comes to our power centre, Canada is in the envious position that we have a large share of resources, our electricity supply, coming from non-emitting technologies. About 82% of our supply comes from hydro power, nuclear and sources that don't emit greenhouse gases.

We have been working at NRCan not only from the perspective of the Canada-U.S. relationship but also interprovincially between provinces in Atlantic Canada, between Saskatchewan and Manitoba and in British Columbia to develop transmission interconnections. It's a big focus of our work. We have been working to do due diligence on particular projects. We have been working with the Canada Infrastructure Bank to try to develop co-financing models where we could support provinces and utilities in developing those technologies.

With regard to Canada and the U.S., there are a number of projects that have been proposed that are going through regulatory processes, both on the Canadian side of the border and on the U.S. side of the border, particularly in eastern Canada with some of the northeastern states. We're working with some of those jurisdictions to advance those projects, again through the regulatory process, and consider possible opportunities for federal co-financing of projects.

**Ms. Rachel Bendayan:** Thank you very much, sir.

Madam Chair, do I have time for one more question?

**The Chair:** You have one minute and 20 seconds, please.

**Ms. Rachel Bendayan:** Thank you very much.

Given that you touched a little bit on the possibility of inter-provincial grids, would it be possible, either now or by tabling with the committee, to give us a sense of where some of those projects are at? I believe there is ongoing work, as you mentioned, connecting the Atlantic provinces with our very clean and important electricity here in Quebec.

**Mr. Marco Presutti:** Certainly. I can elaborate a bit on Atlantic and other jurisdictions.

We have identified some priority areas where we have been working very closely with provinces and their utilities across the country to try to get the infrastructure built. We see the real value.

You mentioned the Atlantic provinces. One of the projects we have been putting a tremendous amount of effort into with our colleagues from ISED and other government departments is referred to as "the Atlantic loop". It's essentially transmission infrastructure that would connect provinces like Newfoundland and Labrador and Quebec, which have surplus clean power, to jurisdictions like Nova Scotia and New Brunswick, which are still working to get fossil fuels out of their generation mix.

We have been working through a number of intergovernmental committee processes to do due diligence on the projects and to try to figure out the best route and the best technologies. The biggest challenge in the electricity space is that, ultimately, the way our systems work in Canada is through ratepayers. Households and businesses end up covering the lion's share of the costs in building new infrastructure.

• (1420)

**The Chair:** Thank you, Mr. Presutti. I'm sorry to cut you off. I just have to move on.

Monsieur Savard-Tremblay, you have six minutes, please.

[*Translation*]

**Mr. Simon-Pierre Savard-Tremblay:** Thank you, Madam Chair.

I would like to welcome our new witnesses and thank them for their contribution to our study today.

I must admit that I wasn't sure whether this question is for the Department of Foreign Affairs, Trade and Development or the Department of the Environment. If you want to speak up, please do so.

The budget states that:

The government intends to launch a consultation process on border carbon adjustments in the coming weeks. This consultation process will begin in the summer with targeted discussions, including with provinces and territories, importers, and exporters...

In addition, on March 10, 2021, the European Parliament voted in favour of a carbon adjustment mechanism. European parliamentarians chose to support carbon pricing on certain goods imported from third countries, if those countries are not ambitious enough in terms of climate change, of course.

To your knowledge, is this mechanism consistent with the requirements of the World Trade Organization?

[*English*]

**Ms. Rosaline Kwan:** Thank you for the question.

I would like to invite Ms. Huddleston from ECCC to respond.

**Ms. Jeanne-Marie Huddleston (Director General, Bilateral Affairs and Trade, International Affairs Branch, Department of the Environment):** I can speak generally to border carbon adjustments, but not in the context of the WTO. Perhaps a GAC colleague can add to that point.

In the context of border carbon adjustments, as noted, this is something that Canada is exploring as a possible measure to ensure, as we transition to a low-carbon economy, that it is achieved in a way that is fair and predictable for our businesses and that it supports international competitiveness for Canadian companies. As noted, the budget indicated that the government will be launching a domestic consultation process, which we expect to happen in the coming weeks.

We are working with other like-minded countries, such as those in the EU, to consider how this approach more broadly fits into global strategies for countries to meet their climate targets while ensuring a fair and predictable environment for businesses.

With respect to the European proposal, Canada did submit formal comments to the EU as part of their consultation process, which, among other things, underlined Canada's robust price on carbon. We also know that the United States has made some comments, but they're also looking at this.

I would say this is still an evolving space in terms of policy.

I might cede the floor now to Doug or Rosaline from GAC. I'm not sure if you have anything with respect to WTO.

**Mr. Doug Forsyth (Director General, Market Access, Department of Foreign Affairs, Trade and Development):** Sure, thanks, Jeanne. I'm happy to add to your comments.

Good afternoon. Thank you for the question, Madam Chair.

Yes, as Jeanne said, this is an evolving policy space. It's very topical, no question about it. There is a lot of interest from around the world. I think a lot of that is being driven by the European Union. They announced that they have been conducting a number of studies and analyses, and I understand they will be in a position to release, as part of their broader environmental package, a CBAM, a carbon border adjustment mechanism. There will be details on that in mid-July. We are following this very closely, obviously, as Canadian exports to the European marketplace could be impacted.

As to whether it is WTO-consistent, well, we don't know. I think this is the challenge with respect to carbon border adjustment mechanisms. There have been a great number of studies over the years and no one has yet implemented one that is WTO-consistent, so we're watching carefully. As Jeanne noted, Canada is currently analyzing whether that policy is appropriate for Canada. We'll continue that analysis, and the consultations will follow later this year.

[*Translation*]

**Mr. Simon-Pierre Savard-Tremblay:** Thank you.

According to the budget, consultations are expected to begin by the summer.

Has a timetable for consultations already been established? Do you have any idea of the sectors that will be covered? For example, will the energy sector be included?

• (1425)

[*English*]

**Ms. Jeanne-Marie Huddleston:** Thank you for the question.

My understanding is that the intent is to consult broadly and to launch these consultations domestically in the near term. I'm afraid I don't have precise details on hand, but I'm very happy to follow up and provide additional information.

[*Translation*]

**Mr. Simon-Pierre Savard-Tremblay:** Thank you.

For Canada to achieve clean and sustainable economic competitiveness, a great deal of coordination is needed within the federal and provincial governments, and among them.



What interdepartmental coordination and programs are planned for clean technology goods and services?

[English]

**The Chair:** Can anyone give a brief answer to the comment? Otherwise, I will move on.

Go ahead.

**Ms. Jeanne-Marie Huddleston:** I can respond quickly to that.

Within the federal government, as it relates to climate change, we are very much taking a whole-of-government approach. That includes dedicated regular meetings at the assistant deputy minister and deputy minister levels to ensure that departments are working together and mutually supporting the various programs and policies that have been proposed or announced, and then for individual programs—

**The Chair:** Thank you very much for that answer.

**Ms. Jeanne-Marie Huddleston:** Okay.

**The Chair:** Thank you, Ms. Huddleston.

We will move on to Mr. Blaikie for six minutes.

**Mr. Daniel Blaikie:** Thank you very much.

Mr. Presutti, I wanted to come back to the discussion we were having earlier. I suppose I took you to mean—and you can correct me if I'm wrong—to both increase the capability for transmission between provinces and also actually try to build a more common grid and have grid interconnectivity.

I know you were talking about a project that you're looking at in eastern Canada, but of course in western Canada the provinces of Saskatchewan and Alberta still use a significant amount of coal to generate their electricity and are bookended by the provinces of B.C. and Manitoba, both of which have a considerable supply of hydroelectricity. I'm wondering if the department is working with provincial partners in a way similar to what you described on the east coast with western provinces and exploring not just the possibility of enhanced transmission between western provinces, but also the possibility of building a more interconnected grid in the western region.

**Mr. Marco Presutti:** Thanks for the question.

We are in fact working across the country. We've done technical analyses and studies over the course of the last several years to identify the most promising projects that we think can help with emissions reductions and also keeping rates affordable for Canadians.

As I mentioned with the Atlantic, we have work under way with Saskatchewan and Manitoba right now to advance a project known as the Prairie Link, so essentially some grid integration between the two provinces that would allow surplus clean power from Manitoba to flow into Saskatchewan to help with retiring some of the coal. We're doing the same thing in British Columbia. We have a dialogue under way with BC Hydro, the province and the Canada Infrastructure Bank to look at how we can build some grid connections that would help connect natural gas facilities in the northeastern part of the province, which would help it use electric drives instead of gas drives to lower its emissions.

We are in fact looking across the country and trying to work with any of those provincial jurisdictions and utilities that want to work with the federal government. Certainly, electricity is a provincial domain, so we have to be working in lockstep with those jurisdictions.

**Mr. Daniel Blaikie:** When you're undertaking that work, are you looking at opportunities, if there's new infrastructure being built, whether it crosses provincial boundaries or whether it's within a province but going to newer areas, to try to piggyback other important infrastructure like broadband onto those projects, or is your mandate narrowly focused on issues of electricity?

• (1430)

**Mr. Marco Presutti:** The work we've been doing is primarily around electricity. When we try to develop new transmission infrastructure, we're often working in existing corridors. In fact, in at least two of the three cases that I've mentioned, it's existing corridors where we're trying to add more, or beef up existing transmission.

I know there are other parts of the government, other departments and perhaps folks here who might be able to speak to broadband and other initiatives, but not so much me.

**Mr. Daniel Blaikie:** Thank you.

My next question is a little more general, although it might be most properly directed to the Department of Industry. One of the recurring themes at this committee over the course of this Parliament has been hearing from a number of folks in industry, both on the employer side or business side and from a number of labour unions as well, that Canada stands out among our international trading partners for a distinct lack of industrial policy and planning.

Of course, we're here to talk about how to increase export opportunities. We often talk about trade deals, but in the Canadian context, it seems we do that without a concerted plan for what we want strategic industries to look like in the next 10, 20 or 30 years: I think, for instance, of Canada's lack of a plan for the aerospace industry or the automotive industry.

If we have those plans, please table them with the committee. However, we've heard repeatedly—including just earlier from our last panel of witnesses—that Canada is not doing a good job of this and that it would bring benefit in terms of helping industry coordinate some long-term planning, which they don't always have the capacity to do as they try to meet the short-term demands of their industry. Also—and I think we've seen a little bit of this today with some of the questions that get punted around—sometimes different government departments don't really know what their partners are working on, so you don't get a cohesive plan emerging.

I'm curious about the philosophy behind this, whether it's a matter of resources and when the government plans to get serious about convening its interdepartmental partners and industry to develop explicit medium- and long-term plans for certain strategic industries.

**The Chair:** There are about 30 seconds left for an answer, if that's possible.

**Mr. Andrew Noseworthy:** The short answer would be, sir, that we are collaborating very closely. We have regular communication among all the people who are here on this call.

I think we're at a point of dramatic industrial transition, so helping companies understand things like net zero and understand what's necessary now is actually quite a bit different from what it would have been, say, 18 months ago, because markets are progressing so fast.

**Mr. Daniel Blaikie:** With the last little bit of time that I have, could you—

**The Chair:** I'm sorry, Mr. Blaikie, but you don't have any more time on my clock.

Mr. Hoback, go ahead, please.

**Mr. Randy Hoback (Prince Albert, CPC):** Thank you, Chair. I can't believe we're having a meeting with officials and Steve Verheul is not here. I think it's a first.

It's nice to see you again, Mr. Forsyth.

My first question is for Ms. Kwan.

Ms. Kwan, I'm curious about how you define the idea of clean tech in your department when you're saying companies can qualify for your programming. What are the criteria to be considered a clean-tech company here in Canada?

**Ms. Rosaline Kwan:** Thank you for that question.

Of course, clean tech, as evidenced by the diverse set of witnesses who have appeared before this committee, applies to many different sub-areas, if I can call them sub-areas. Some are quite deep on their own, in terms of technologies and application. It is, as we see it, a cross-disciplinary, cross-platform sector, if you can still limit it by that terminology.

Clean tech could cover what some people call “pure play”: the technology side of decarbonization of certain products or services. It also, as we've heard, applies to the oil and gas sector, the energy sector, the mining sector, the agriculture sector and so on, because the implications of reducing greenhouse gas are so wide and so important. For us also, those are considered areas to which clean technology could be applied.

I'm not an expert, by any means—I don't want to portray that—but there is a taxonomy for clean tech that is used when we do data and data strategy.

• (1435)

**Mr. Randy Hoback:** That's what I'm getting at. You have some really strong numbers on clean tech. I'm looking at that and wondering how much of that is in new sectors—or are these existing sectors that now qualify under a new program, so they come under a new name called “clean tech,” whereas, say, five years ago they might have been doing the same thing they're doing today, but under a different type of branding?

**Ms. Rosaline Kwan:** Certainly, given the evolution and the progress of the industry, we've had to adapt as well. We couldn't, of course, stay behind and see it as purely clean tech in one area versus another. I'm thinking about aerospace, which is quite an established sector, but in aerospace we're looking at technologies and

els that are considered under the clean-tech portfolio, among other things.

To your point, Mr. Hoback, yes, we are very much working to adjust and adapt to make sure that wide applications are considered.

**Mr. Randy Hoback:** Thank you.

I'm going to be like Ms. Bendayan. We only have so much time. I don't mean to be rude.

**Ms. Rosaline Kwan:** Apologies.

**Mr. Randy Hoback:** Mr. Forsyth, I think this would come under your angle.

How does article 6 of the Paris Agreement come into any type of new programming when it comes to a border adjustment for carbon? Where is that in the Global Affairs list of priorities, to get something like that put in place and functioning so that Canadian companies can take advantage of article 6?

**Mr. Doug Forsyth:** Maybe I can start, and then I'll turn to my colleague from ECCC to fill in with respect to the Paris accord.

As we are talking about the border carbon adjustments and whether they are WTO-consistent, I think we are certainly examining whether they are or whether they're not. We'll have to see how things roll out to determine whether they are consistent or not.

In terms of how we look at trade and our overall environmental objectives, I think they're very compatible. They work well together. We see them as very much compatible objectives, whether we're negotiating at the WTO or bilaterally with other countries.

**Mr. Randy Hoback:** Okay.

I'll just open it up to the floor, then.

Article 6, where are we at? Are we going to see progress on that?

**Mr. Doug Forsyth:** I'll turn to ECCC for that. Thank you.

**Ms. Jeanne-Marie Huddleston:** Yes, I'm happy to jump in here.

As you may be aware, article 6 was agreed to under the Paris Agreement. However, parties to the agreement have since been negotiating further guidance on how this mechanism will work in practice with respect to nation-to-nation trading of greenhouse gas reductions or removals. Canada is very hopeful that this will be landed by the next UN climate conference, which is taking place in November of this year. Canada has been a very active participant in the negotiations, and in particular to ensure that the international rules are robust, ensuring environmental integrity, transparency and rigorous accounting.

**The Chair:** Thank you very much for that answer.

We have Mr. Arya for five minutes, please.

**Mr. Chandra Arya (Nepean, Lib.):** Thank you, Madam Chair.

My questions are directed to the representatives of the Department of Industry and the Department of Natural Resources.

The batteries are the future—not just the future, it is happening now. The transportation sector is making tremendous changes, moving from gasoline internal combustion engine cars toward the battery-operated vehicles.

**The Clerk:** Mr. Arya, sorry. It's Christine here. Could you move your mike a little bit further from your face, please?

**Mr. Chandra Arya:** Okay.

Madam Chair, please give me that extra few seconds.

Batteries are also making a tremendous change in energy storage, which will make clean tech—solar and wind-powered generation—more viable in the future, and not just in the future, even currently.

I know in the recent budget we did invest to create a critical battery minerals centre of excellence at Natural Resources Canada. We also provided funds for federal research and development to advance critical battery mineral processing and refining expertise.

Both Canada and the U.S. have signed an agreement to strengthen the Canada-U.S. joint action plan on critical minerals collaboration. I want to know what is happening on that front from Canada's side. The United States Department of Commerce held a closed-door meeting about eight weeks back with the miners and battery manufacturers to discuss ways to boost the Canadian production of critical minerals. I think 17 of the 35 minerals identified as critical by the U.S. Department of Defense are mostly also related to critical minerals for battery development that can be supplied from Canada. The United States is looking for us to be a small part of the whole world supply chain.

I feel we should have a comprehensive strategy to develop everything—from minerals and metals to technologies and manufacturing facilities—here in Canada. I want to ask the Department of Industry and the Department of Natural Resources whether they have a comprehensive strategy to develop this sector, from minerals and metals to technologies and manufacturing companies, here in Canada.

• (1440)

**Mr. Andrew Noseworthy:** Perhaps I can start, and then my colleague in Natural Resources can comment. I'm not an expert in this space, but I assure you that NRCan, ISED and Transport Canada are working very closely in this space.

In our view, we're looking for an integrated value chain, from the early production and development of minerals right through to full mobility and the production of vehicles. Canada, as you may know, is perhaps the only country in the world with the full suite of strategic minerals that are necessary for the types of battery production that we anticipate will happen in the future, and we're looking to deploy critical resources around both battery development and electric vehicle development. In fact, as you probably know, that's already a focus in our strategic innovation fund, the net-zero accelerator. We're hoping both of those things—

**Mr. Chandra Arya:** When you talk about the integrated plan, is it available? Can you submit it to the committee, please?

**Mr. Andrew Noseworthy:** There is no integrated plan. It is something we're working on collaboratively with the intent of developing an integrated approach from first development of minerals through to vehicle production.

**Mr. Chandra Arya:** Okay. Have you organized a meeting between NRCan, the Department of Industry and the industries themselves, the industry representative groups, in developing this particular plan?

**Mr. Andrew Noseworthy:** I can't speak specifically to that, because I do not work in automobiles, but I am certain that there is regular communication by NRCan, ISED and Transport Canada with industry on all these issues.

Perhaps I could ask my colleagues in NRCan to speak a little more about the mineral side of this.

**The Chair:** If you have anything to add, please do so very briefly.

**Mr. Daniel Dufour:** Thank you, Madam Chair.

To complement what my colleague from ISED said, there is a whole-of-government approach or exercise that's being done, from mines to mobility. It is looking at mining and processing, manufacturing and recycling.

We're also doing a lot of work with provincial and territorial governments, so there is a working group as well that is looking at mapping out the innovation ecosystem and looking at where some of the gaps are for opportunities, some strategic areas for potential additional investments.

**The Chair:** Thank you very much.

We'll go on to Monsieur Savard-Tremblay, for two and a half minutes, please.

[*Translation*]

**Mr. Simon-Pierre Savard-Tremblay:** Thank you, Madam Chair.

A paragraph in budget 2021 entitled “Better Supports for Exporters” states the following. Let me read it to you:

Export Development Canada (EDC) helps Canadian companies of all sizes compete and succeed in the global marketplace. EDC recognizes its responsibility to uphold Canadian values and human rights when doing business.

Budget 2021 announces the government's intention to work with Export Development Canada to enhance supports to small and medium-sized exporters and to strengthen human rights considerations in export supports. The government may propose amendments to the Export Development Act.

Specifically, what amendments to the act would you consider? Will there be any consultations on this? How do you plan to enhance supports to small and medium-sized exporters?

• (1445)

[English]

**Ms. Rosaline Kwan:** Thank you for the question. I would invite colleagues from Export Development Canada to respond.

Sophie, perhaps that could go over to you.

**Mr. Guillermo Freire (Vice-President, Structured and Project Finance, Export Development Canada):** I can take part of that question, and Sophie, you can comment after if you want.

Thank you very much for the question. The group here is not currently involved in changes to the Export Development Act.

I can talk about human rights, which is a top priority for EDC and has been embedded in our human rights policy that was recently issued. That was based on the United Nations guiding principles on business and human rights, and other policies and internationally recognized best practices. However, I cannot speak at this point in time as to what changes might be coming through the Export Development Act.

**The Chair:** Thank you very much.

We'll go on to Mr. Blaikie, for two and a half minutes, please.

**Mr. Daniel Blaikie:** I just want to come back to Mr. Noseworthy.

I'm curious. If there is a sector-specific industrial plan, or if there are a number of them, could you table with the committee what the Canadian government considers to be its top three best sector-specific industrial plans, and would one of those include clean tech?

**Mr. Andrew Noseworthy:** What we're doing on clean tech is specifically working with companies to understand their priorities. We're doing that collaboratively. We have a group across the departments that are represented here working directly with industry, talking to them about their priorities. We're asking them specifically what their strategic technology priorities are and where they see key lighthouse projects that they feel will drive the industry forward. That's the approach we've been taking to date.

That process has really been amplified [*Technical difficulty—Editor*].

**Mr. Daniel Blaikie:** For any sector, is there a sector-specific industrial plan that forecasts 10 or 20 years into the future? Could you table one with the committee, just so we have an example of what the government considers to be best practice for industrial policy? We could then compare the efforts on clean tech against it to see where you would ideally like to end up in terms of having a medium- and long-term plan.

**Mr. Andrew Noseworthy:** The approach we've taken so far, at least in the number of years I've been in government, is to focus more on how we drive specific technology areas within sectors. For example, road maps have been developed by Natural Resources Canada in areas like SMR development.

**Mr. Daniel Blaikie:** Does that mean there's a philosophical objection to having a sector-based plan? For instance, just as an example, we could talk about the aerospace industry. Is there a philosophical objection within government to having a sector-specific

plan, or is it just something we haven't actually gotten around to in any sector?

If we have gotten around to it in one sector, could you table that plan with the committee so that we have an example of what it looks like when it's complete?

**Mr. Andrew Noseworthy:** I'm not sure I would say there's a philosophical issue here, sir. I think the philosophy we sought to apply is that it's for industry to tell us what they need, not to tell them what we need.

**Mr. Daniel Blaikie:** Sure, but we've heard from a lot of industries at this committee that they want industrial policy and want to work with government to fashion it, but it's not happening.

**The Chair:** Thank you, Mr. Blaikie.

We move on to Mrs. Gray for five minutes, please.

**Mrs. Tracy Gray:** Thank you, Madam Chair. Thank you to all the witnesses for being here today.

Ms. Kwan, in your answer to Mr. Hoback on clean technology, you mentioned that there is a taxonomy that is used. Is that a formal document? Is it something you'd be able to table for this committee?

**Ms. Rosaline Kwan:** I will have to check with our data strategy experts. I don't know whether our ISED colleague would be able to comment a little bit on this, but if further information is needed, we'd be happy to provide it.

**Mrs. Tracy Gray:** I think that would be very useful.

**Mr. Andrew Noseworthy:** We can certainly provide it to the committee.

**Mrs. Tracy Gray:** That's great. Thank you kindly.

This study is ending shortly, so if we could get it soon, that would be wonderful.

Thank you.

**Ms. Rosaline Kwan:** We'll get it to you as soon as possible.

**Mrs. Tracy Gray:** Thanks.

I have a couple of questions regarding BDC. My understanding is that through the clean-tech practice it's intending to invest \$600 million in high-potential clean-tech companies between 2018 and 2023. I'm wondering how much has been invested to date. We heard a total, Ms. Kwan, which you gave, of \$370 million as of March, but I wasn't sure whether that was part of this or whether it was a different amount that you were giving. You were giving a number of statistics there.

Was that part of this, or was it for something else?

• (1450)

**Ms. Susan Rohac (Vice-President, Cleantech Practice, Business Development Bank of Canada):** Good afternoon. I can answer that.

Yes, the number that Ms. Kwan gave was specifically related to just the \$600 million clean-tech fund that was given to us in the 2017 budget to exercise on a clean-tech strategy specifically aimed at a stretched risk lens for early-stage commercialization. We have invested \$370 million of that plan to date.

We're seeing some very interesting technologies and interesting companies come out of this. One example I'll give to committee members is that of a Global Cleantech 100 list that's published every year. It's the list of the 100 best clean-tech companies globally. Eleven of them were Canadian in 2021, and seven of them are supported by BDC, so we are supporting some of the best of the best.

Also, for every dollar we've put into these companies, we see \$4.50 of private sector money come in at the same time as us or after us. We are seeing that the companies we are supporting are able to leverage 4.5 times more dollars from the private sector to support their growth and commercialization.

**Mrs. Tracy Gray:** Thank you. That's really good information.

When would you expect to break even? When do you project that the BDC will make back that \$600 million or the \$370 million so far?

**Ms. Susan Rohac:** Speaking specifically to the clean-tech practice, we are profitable right now on a cash-on-cash basis as well as on a non-cash basis. We are profitable.

We do debt and equity within the fund. Our numbers are not yet finalized—our year-end is March 31—but we are a profitable fund right now.

**Mrs. Tracy Gray:** Would you be able to table for the committee any projections or documents relating to this?

**Ms. Susan Rohac:** Yes.

**Mrs. Tracy Gray:** Thank you.

How many jobs have been created to date through the investments with BDC, specifically with this clean-tech practice?

**Ms. Susan Rohac:** I can table that as well. I don't have that statistic with me.

**Mrs. Tracy Gray:** Thank you.

Would you be able to table a list that includes the total value of the loans, grants or contributions made by the BDC or any of the development agencies or granting councils to any corporation with net earnings of \$10 million or greater through the clean-tech practice?

**Ms. Susan Rohac:** Because of banker-customer confidentiality, I don't think I can disclose some of the financial statements of our borrowers. I can certainly provide, on a consolidated basis, some of the statistics you are looking for, but I don't think I can do it at a customer-by-customer level.

**Mrs. Tracy Gray:** Thank you.

Can you table with the committee the rubric you're using to evaluate the outcomes of the investments through the clean-tech practice?

**Ms. Susan Rohac:** Yes.

**Mrs. Tracy Gray:** Okay, great, thank you.

I have another question on a completely different topic. I know the government is laying the groundwork for a potential trade agreement with Indonesia. Do you see a large potential for Canadian clean tech to Indonesia?

This will go to whoever is going to speak on this.

**Ms. Rosaline Kwan:** Maybe I'll invite my colleague Mr. Forsyth to comment if he has any further comments.

Overall, trade with southeast Asia is an area that we see as high-potential, particularly with some of the emerging markets and with the trade diversification strategy that I referred to earlier. Indonesia is part of that consideration.

I'll pass it over to Doug if he has any further comments.

**The Chair:** I'm sorry, Ms. Kwan. I have to cut you off.

We are moving on to Mr. Sarai, please, for five minutes.

**Mr. Randeep Sarai (Surrey Centre, Lib.):** Thank you, Madam Chair.

I want to hear from the trade commissioners. You have been very impactful in supporting Canadian businesses. How do you find it when you're abroad and you're promoting Canadian clean tech? What has been the response? What has been the success rate? Can you elaborate on that?

**Ms. Rosaline Kwan:** Thanks for the question.

We've been really focusing a lot of effort in promoting Canadian clean-tech goods and services around the world. As I mentioned, it was important for us to be able to renew the resources through budget 2021 and continue the support to Canadian companies in regional offices.

To your question, in our missions abroad, Canadian companies connect with our trade commissioners there to learn about the local business environment, the high-potential business partners and what the business risks are, and get some advice on business opportunities and networks. So far, from the resources we have been given and from the tracking of our activities, we found that there has been success we can point to and also that there is continued potential for even more of that success, given the strong capacities of some of our very good companies and their technologies.

Where we want to help even more is to provide an ever better focus area of support to different companies across their needs. I know we have limited time, but one of the areas and programs where we really provide that enhanced focus is through our Canadian technology accelerators. It started out in the U.S., but now we have them in Asia, some in Europe, some across the Americas. We run 12-week programs, and our partners around the virtual table here, in particular BDC, EDC and others, work together with us in preparing companies and then connecting them when they are abroad. Mr. Noseworthy mentioned the waste-water mission that took place earlier in India. That also pointed to a lot of specific opportunities that our Canadian companies have been able to further develop and seize upon to be able to grow their activities in international markets.

For us, it is an important area. It is an area we feel we need to continue to support the industry on. Just to give a sense of what I'm talking about with the Canadian technology accelerators, since 2013 the program has raised capital of over \$600 million. Canadian companies have increased revenues by \$238 million, and it has created about 2,500 jobs. We very much look forward to continuing that.

What we've seen more recently is very encouraging. We've had 30% growth since 2019 in women's participation in the Canadian technology accelerators. We are very pleased to see that and we are very proud of it, so we'll continue to work in that regard as well.

• (1455)

**Mr. Randeep Sarai:** Thank you.

My next question is for Ms. Huddleston, from the Department of the Environment.

Could you tell us how we're collaborating with international partners to develop clean-tech solutions, and probably more so on standardization? I assume that when we can standardize stuff, whether it's in the automotive sector or in other emissions standards, a lot of our clean tech can be specially distributed to places such as the United States and Europe.

**Ms. Jeanne-Marie Huddleston:** I can speak to collaboration with international partners on clean tech from the perspective of Environment and Climate Change Canada, but I think my colleagues from Global Affairs are probably better placed.

From the perspective of Environment and Climate Change Canada, we work with Global Affairs to negotiate environmental obligations in all of the free trade agreements. That helps create new markets for clean-tech solutions.

Environment and Climate Change Canada also works with other partners around this table to identify market opportunities for Canadian exporters of environmental and clean-tech goods and services. We do so by leveraging the co-operation and the relationships we have bilaterally under those free trade agreements or the companion environmental co-operation agreements. We also work closely with the trade commissioner service.

I would defer to my colleagues at Global Affairs to speak more specifically to the question.

**Ms. Rosaline Kwan:** Thank you.

Perhaps I can add a little bit from the perspective of the trade commissioner service. If other colleagues have additional comments, they're most welcome to join in as well.

In terms of international partnerships, from a trade commissioner service perspective, we are of course led by Canadian companies. What we're seeing, in particular... I talked about the clean-tech side, but I also want to mention the climate finance side in terms of partnership. We're seeing multidirectional connections being made to connect our Canadian companies to even more opportunities and more financing and capabilities around the world.

As one example, we would have a Canadian company with a very strong capacity in a certain area. We would help it, through the network I mentioned, in Europe and elsewhere; this example is in Europe. We helped to connect them to a Finnish international financial institution that has a project in Africa, for example.

The traditional model of going out to a specific market now has, as I'm sure members will appreciate, multiple connections in an integrated, interwoven world. We feel that the benefit comes from additional connections that the trade commissioner service is able to provide to create those partnerships with various agencies and organizations, including all of the partners here, of course, to get our Canadian companies into new and emerging markets.

• (1500)

**The Chair:** Thank you very much, Ms. Kwan.

I want to take a moment to thank all of the witnesses. I know it's a lot for you all to come to committee. We actually needed two hours, rather than an hour, with all of you. Thank you all very much for your participation and valuable information.

To my colleagues, it's constituency week next week. I hope you all have a successful week. Thank you for your assistance.

I will now adjourn the meeting.









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