



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

44th PARLIAMENT, 1st SESSION

Standing Committee on Science and Research

EVIDENCE

NUMBER 063

Monday, November 6, 2023

Chair: Mr. Lloyd Longfield



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• (1550)

[English]

The Chair (Mr. Lloyd Longfield (Guelph, Lib.)): I call the meeting to order.

We will get started. After our votes, we're a little late getting going, but we do have resources until six o'clock, so we should be able to get in our full two hours.

Welcome to meeting number 63 of the Standing Committee on Science and Research.

Today's meeting is taking place in a hybrid format, pursuant to the Standing Orders. Members are attending in person in the room and remotely by using the Zoom application.

I would like to make a few comments for the benefit of the witnesses and members.

Please wait until I recognize you by name before speaking. For those participating by video conference, click on the microphone icon to activate your mike. When speaking, please speak slowly and clearly, and please mute yourself when you're not speaking.

For interpretation for those on Zoom, you have the choice at the bottom of your screen for either floor, English, or French. Those in the room can also choose the language of your choice on the headset. Although this room is equipped with a powerful audio system, feedback events can occur, and they can be very harmful for our interpreters, so please keep your earpieces away from the microphone so that you don't get feedback from it.

In accordance with the committee's routine motion concerning connection tests, all witnesses have been tested for their audio and all systems are go. I will remind everyone that all comments should be made through the chair.

Pursuant to Standing Order 108(3)(i) and the motion adopted by the committee on Monday, September 18, 2023, the committee is commencing its study on integration of indigenous traditional knowledge and science in government policy development.

It's now my pleasure to welcome, as an individual, Susan Kutz, professor and tier 1 Canada research chair in Arctic "one health", by video conference.

From the Inuit Tapiriit Kanatami, we have Natan Obed, president, and Carrie Grable, director, Inuit Qaujisarvingat.

From the Institut Tshakapesh, we have Marjolaine Tshernish, executive director, by video conference.

Each individual and organization will be given a maximum of five minutes for their remarks, after which we will proceed to rounds of questions. I'll signal you when you have a minute left, and then as we get closer to time out, I'll get more animated, no doubt.

We'll start off with Susan Kutz, as an individual.

Ms. Susan Kutz (Professor and Tier I Canada Research Chair in Arctic One Health, As an Individual): Thank you so much.

I want to start with a quote from Myles Pedersen, an Inuk harvester from Kugluktuk, Nunavut. We were in a caribou health workshop last week, and I asked him and other participants if there was anything they'd like me to bring to this meeting today. Myles' response was that it's difficult to find common ground between traditional knowledge and policy, because traditional knowledge is passed down over generations and it's how we live, whereas policy is something that is imposed on us.

I was born and raised in Calgary on Treaty No. 7 territory. I'm a descendant of white settlers to Canada of German and Hungarian heritage.

I'm a veterinarian. I have a graduate degree in wildlife health, and I am a professor at the University of Calgary. I have worked with Dene and Inuit communities in the Arctic and subarctic on domestic and wild animal health for over 30 years. I do not, however, suppose to represent these communities today. Rather, I'm presenting my views and perspectives from my own personal and research experience in the Canadian north, and I am thrilled to see my copanellists today, who I know will represent those indigenous perspectives.

My research program has centred on working with indigenous communities to understand the impacts of climate change on the health and sustainability of important wildlife species, such as caribou and muskoxen.

Healthy wildlife are really critical for not only the health of Arctic ecosystems but also for the food security of communities across the north. For example, in Nunavut, up to 70% of the population is food insecure. Wildlife helped to combat this food insecurity. In fact, the historic value of the subsistence harvest of wildlife is estimated to be about \$198 million a year. That's its food replacement value. This figure doesn't include the additional economic value through tourism, the sale of handicrafts, the use for clothing and tools or the spiritual and cultural importance to the communities.

In our research, what we try to do is bring together indigenous, local and western scientific knowledge and ways of knowing and doing to better understand the health of these subsistence wildlife species and the threats to them. We try to answer questions such as, "Will they be there for generations to come?" or "Is it safe to eat?" To do this, we are equally partnered with local indigenous wildlife co-management organizations in Nunavut and the Northwest Territories, as well as government employees in wildlife, and we have a community-based wildlife health program.

A key goal of this program is to ensure that the indigenous voice is meaningfully represented in wildlife management policy.

We have a three-pronged approach. It includes documentation of traditional knowledge, hunter-based surveillance and western science. I'll focus on the traditional knowledge and how that has been used as examples of how it can be put into policy.

We have documented traditional knowledge through narratives, which is storytelling, and participatory epidemiology methods. This work has generated new knowledge through traditional knowledge, including the identification of major muskox epidemics and population declines and new disease syndromes in caribou and muskoxen, including diseases that are a threat to people.

The TK, or traditional knowledge, has contributed directly to policy through guiding practices for icebreaking in the Arctic sea ice, where icebreaking patterns have to abide by the needs of the Dolphin and Union caribou that use that sea ice to cross on their annual migrations. The traditional knowledge has redrawn the range maps for caribou. The traditional knowledge has designed new population census protocols for counting caribou. It's a really important resource. It's also informing public health policy around the zoonotic or disease risks from handling and consuming wildlife species.

All of this has taken people sitting down around the table together, talking to, listening to and trusting one another. That's something you can do on a small scale, but it's difficult to scale up.

I have one minute. Okay.

Quickly, on traditional knowledge and western knowledge, we've been asked about conflicts and what to do about them. I think this is something that we shouldn't be afraid of. It happens within the scientific community. It happens in the traditional knowledge community. When we see conflicts, we shouldn't be afraid of them; we should embrace them, because they allow us to dig deeper into what might be going on there.

What do we need to do to ethically and effectively use traditional knowledge in policy development? We need to think about this. It is fundamentally a western colonial construct and it's a power rela-

tionship. We really need to think of a paradigm shift—a system shift.

● (1555)

There are excellent examples of how it can be done, and these are from indigenous scholars. Mi'kmaq elder Albert Marshall talked about the two-eyed seeing principle: learning to see from one eye with the strengths of indigenous knowledges and ways of knowing and from the other eye with the strengths of western knowledge and ways of knowing. It's learning to use both eyes together for the benefit of all.

I'll stop there.

The Chair: Thank you. Hopefully, we can get to more examples in the question period.

Now we'll move on to Inuit Tapiriit Kanatami.

Mr. Obed, it's wonderful to have you here. Welcome.

● (1600)

Mr. Natan Obed (President, Inuit Tapiriit Kanatami): Thank you, Mr. Chair. It's great to be here with all of you.

I'll start with Inuit Tapiriit Kanatami, which means "Inuit United in Canada". Kanatami means "in Canada". Hopefully, that helps you with remembering.

I've thought of many ways to spend my five minutes here with you all this afternoon. I'll start with the term "conflict".

As the previous speaker mentioned, the term "conflict" is used because of the systematic inability of western science, and all the mechanisms and structures the Government of Canada has that rely on western science, to accept, on principle, indigenous knowledge as being equal to western science. It isn't necessarily a conflict as much as it is an outcome of your policies, legislation and ways of funding. It is no surprise to us as Inuit that we are in this dilemma. There are huge challenges in our communities that need science and knowledge to be solved, but we get stuck sometimes in the relationship more than we do in the actual work.

ITK represents the rights of 70,000 Inuit in this country. We have settled modern treaties and we have co-management structures that cover 40% of Canada's land mass. These govern things such as wildlife. Immediately, when I think of the incorporation of Inuit knowledge into decision-making, I think of those bodies, especially for things like wildlife—polar bears, beluga and narwhal—and the needless fights we've had over the past 30 or 40 years trying to get recognition of the knowledge we have about the species we interact with every day.

We've tried to move this conversation into systemic change conversations. I am going to quote myself from the 2019 Canadian Science Policy Magazine about this very subject:

It is time to end the research community's unhelpful focus on integrating Indigenous knowledge into science and policy and replace it with a focus on advancing Inuit self-determination in all aspects of research through partnerships between researchers, research institutions, and governments, and Inuit rights holding organizations. The research community has positively responded to calls by Inuit, First Nations, and Métis to respect and support the integration of Indigenous knowledge into research projects, policies, and initiatives. However, an unintended negative consequence of this trend vis-a-vis Inuit is that the discourse around Indigenous knowledge is often wielded to limit Inuit participation in research projects, policies, and initiatives to their Indigenous knowledge components. Despite being characterized as part of a progressive research agenda, the focus on Indigenous knowledge all too often maintains the status quo of limiting Inuit involvement in research to the role passive research subjects. Inuit seek to permanently transform this colonial paradigm through the advancement of Inuit self-determination.

To this end, we have released the national Inuit strategy on research. We have provided a copy to this committee. We have also worked with the Government of Canada to ensure that the United Nations Declaration on the Rights of Indigenous Peoples is signed into law in Canada, and that article 30 under the UNDA action plan focuses very specifically on supporting indigenous data sovereignty and indigenous-led data strategies through legislative and regulatory policy options, supports indigenous jurisdiction over their data, and enables indigenous peoples to lead surveys and other sorts of data collection strategies.

We have to recalibrate a system that was never intended to support indigenous knowledge in any way.

I look forward to the conversation about how we do that, but Inuit have provided a road map. We would love to work with government on implementing it.

Qujannamiik.

The Chair: Thank you very much. I look forward to our discussion.

Now, from the Institut Tshakapesh, we have Marjolaine Tshernish for five minutes, please.

[*Translation*]

Ms. Marjolaine Tshernish (Executive director, Institut Tshakapesh): *Kuei.* Good afternoon.

[*Witness spoke in Innu.*]

[*Translation*]

I greeted you in my language, Innu.

I am Innu, and I'm from the Uashat mak Mani-Utenam community on the North Shore in the province of Quebec.

Thank you for inviting me to take part in this study, which confirms how important it is to have a dialogue before implementing major projects for the benefit of the greatest number of people, including the first nations of Quebec.

Despite the limited time we've been given to contribute, participating in the Standing Committee on Science and Research study on the best ways to integrate Indigenous traditional knowledge and science in government policy development is a meaningful and respectful way of granting first nations the right to express themselves and recognizing them as a nation.

It has taken more than 40 years of effort to have Indigenous cultural rights recognized within Canada's legal and political framework. Since colonization began, the country has been built at our expense. Before the European settlers arrived, Indigenous peoples had social structures based on territorial occupation and management. Children learned through observation, repetition and practice. Children were prepared for adulthood by practising various rituals, social activities and rites of passage to master the language, learn their people's history through legends and preserve their people's values and beliefs. Adults knew their territory and mastered the art of hunting. Adults maintained a circular relationship with nature, for which everyone was responsible.

Then came the 374 years the first peoples had to live under the yoke of a colonial state, which kept them in bondage. Subsequently, our peoples were subjected to torture and abuse, which caused intergenerational trauma. Although the term "colonial mission" is now history, the behaviours that resulted from it can still be felt here and there. Who can claim that this mission does not still influence every move the colonists and colonized make?

I'd like to quote Glen Sean Coulthard, author of *Red Skin, White Masks*. He himself quotes the Assembly of First Nations, which made a statement to the following effect before the Standing Committee on Aboriginal and Northern Affairs: As Indian people we cannot afford to have individual rights override collective rights. Our societies have never been structured that way, unlike yours, and that is where the clash comes. If you isolate the individual rights for the collective rights, then you are heading down another path that is ever more discriminatory. The Charter of Rights is based on equality. In other words, everybody is the same across the country ... so the Charter of Rights automatically is in conflict with our philosophy and culture and organization of collective rights.

It's true that our political system is no longer tied to our nomadic mode of organization and is adapted to our sedentary mode of organization. However, our ancestors used to make a point of helping each other when food and resources were scarce. They acted as if nothing belonged to them. They rushed to the aid of those in need. They had no interest in accumulating useless things. Rather, they wished to be seen as useful, courageous, generous and wise.

Canada is home to some 80 Indigenous nations. Each of these nations has its own history, language, beliefs and traditional knowledge.

For the Innu, the oral tradition is made up of *tipatshimun* and *atanukans*, which are our stories and legends. Our oral tradition has been intermixed over the generations: We find new characters in our legends. In addition, historians brought back Champlain's writings interpreted our stories.

Moreover, the first nations have experienced major changes to more than our social structures; the oral tradition is also been transformed over the generations. It has inevitably adopted contemporary mores and principles.

Habits and customs have also been transformed to adapt to the political and social situation of the day. What remains of the past are our elders. They remind us of the importance of remembering and passing on their wisdom and knowledge to their generation. We must pass this on in our mother tongue.

• (1605)

Furthermore, our legal principles are linked to the dimensions of the living and non-living. It's part of the Innu nation's traditional practices. For us, the great spirit is the caribou, Papakassik. For other nations, it's the turtle, the bear, the moose, the eagle and so on.

Also, ancestral languages are channels for preserving the collective memory.

• (1610)

[English]

The Chair: I'm afraid I have to ask you to wrap up, if you could, please. I'm sorry.

[Translation]

Ms. Marjolaine Tshernish: I recommend integrating traditional knowledge into government policy. Elders from several nations need to be involved in this study.

[English]

The Chair: Thank you.

I'm sorry. The constraints we have are unnatural constraints to stories and sharing information, but we have to try to stay within our time limits. Thank you for sharing that.

I also was thinking of Sheila Watt-Cloutier's book, *The Right to Be Cold*. There is some tremendous reading out there on the Inuit culture as well.

Now we're going to start our six-minute rounds, starting with the Conservatives and Michelle Rempel Garner.

Hon. Michelle Rempel Garner (Calgary Nose Hill, CPC): Thank you, Chair, and thank you to the witnesses today for some very insightful testimony.

Mr. Obed, in particular I appreciated your perspective quite a bit. It's always good to hear from a Calgarian. I appreciated that commentary as well too.

Colleagues, just before I get into my questions, I have one house-keeping item I'd like to draw colleagues' attention to. It relates to Canada's ability to address the very emergent situation of climate change. With that, I move:

That pursuant to Standing Order 108(3)(i), the Standing Committee on Science and Research conduct a study regarding the recent investigation and reports on Sustainable Development Technology Canada (SDTC) and serious allegations surrounding wrongdoing at the fund; that this study examine the ways in which these alarming allegations surrounding the fund, which distributes one billion dollars to the clean technology sector, may have impeded Canada's abilities to research and deploy new technologies and advancements in science in the important fight against climate change; that the committee invite relevant SDTC officials, the Minister of Innovation, Science and Industry, related government officials and expert witnesses; that the study consist of at least 5 meetings; that the committee report its findings to the House; and that the witness meetings happen by December 31, 2023.

Colleagues, partisanship aside, we may have differing opinions of how to get to this end goal, but we do need to have ways to fight climate change in Canada. STDC is Canada's largest financial supporter of early stage environmental technology. It is, I believe, entirely government-funded and taxpayer-funded, and there have been some significantly alarming allegations that have been playing out over the last several months, to which I believe there has been very little remedy applied.

I'm sure that there will be investigations into some of the allegations of misappropriation or mismanagement, but the reality is that we're now close to a year into these allegations about this fund. The fund has been suspended, and this is one of the primary ways of Canada applying funds to come up with ways to fight climate change. When we look at Canada's greenhouse gas emissions inventory and we see that we're not even 50% of the way to meeting our emissions reduction targets, the only way that we are going to move people off high-carbon consumer products and practices is if widely deployed substitutes for those high-carbon products and practices are readily available. That could be things like green infrastructure, be it EV charging stations or electrified grids, or frankly, since we have a Calgarian on the line, even an LRT up to north central Calgary.

However, the reality is that a lot of these technologies have to be developed, and Canada's key fund for researching these technologies is under a cloud of significant controversy right now. Given the scope of this committee's work with regard to its mandate to look at research and development in Canada, it is very incumbent on us and urgent, probably one of the most urgent things that we could do, that we examine how this misappropriation, which has not been remedied, is impacting Canada's ability to research and deploy new technologies that could help to actually reduce greenhouse gas emissions.

Colleagues, very briefly, for those of you who might not be aware of what has happened, it has now been a year, and there was another incident last week that spiked this to the forefront.

A year ago, in November of last year, 20 current and former employees of the foundation raised concerns about the agency's financial mismanagement and harmful workplace culture. In a 300-page document submitted to the Auditor General's Office and later to the Privy Council Office, they claimed that certain projects put forward for STDC funding were introduced by individuals with close ties to the agency's leadership, raising concerns about breaches to STDC's conflict of interest policy. The claimants also alleged that there were poor workplace conditions. Then in April there was a small investigation that cost the government tens of thousands of dollars. There was a report issued, but no remedy has been put in place to date.

• (1615)

The fund has been frozen, and just a couple of days ago, on November 1, there was a CBC article about a recording of the assistant deputy minister at innovation, science and technology making comments about the fund and some of the alleged mismanagement. "It was free money" was one of the comments that were made, and it's "almost a sponsorship-scandal level of giveaway."

Colleagues, it's very important that we.... This is Canada's top fund to look at technologies that could help address climate change. It's currently frozen. We now have a top bureaucrat within the Government of Canada likening the management of this fund to the sponsorship scandal. It is incumbent upon this committee to figure out what recommendations need to be given to the government to ensure that the funding is, one, appropriately managed, and, two, directed to research and development activities that can actually help get technologies put forward that can help reduce greenhouse gas emissions in this country.

I can't think of a more important thing for our committee to be doing. I would argue that we can do this study as well, but we need to have people in front of this committee talking about the impact that the freezing of the fund and mismanagement and lack of action is having on Canada's competitiveness and ability to research technologies and come up with alternatives that would allow us to fight climate change.

You know, it's a mantra in the House that we need to look at the science and support scientific principles and look at research. You all know what my background is, and I completely agree with that, but we have to start with management and understanding the impact of this type of mismanagement on the science and research capacity of our country to address climate change.

Colleagues, I think this is a no-brainer. I would encourage you to support the motion so that we can get on with investigating this and coming up with ways, if the fund is going to be unfrozen...or maybe it shouldn't be unfrozen. Maybe it needs to be something else. That is what this committee's scope is for. We should be looking at that ASAP. There should be consequences for this mismanagement as well as for holding back Canada's capacity to do research in the important fight against climate change.

Thank you.

The Chair: I apologize to the witnesses who are here to discuss this very important study we have on indigenous traditional knowledge and science in policy development. It's something that the

committee was seized to get hold of and to understand, from you, your perspectives.

We hope to get back to that, but we are now in a debate on a motion that's on the floor. Pursuant to the way in which the committee works, each committee member who wants to speak now has a chance to speak on that motion. We have a speaking list at the front. Hopefully, we can get to a vote and get back to our study.

We'll go to our speaking list now.

Go ahead, Mr. Turnbull.

Mr. Ryan Turnbull (Whitby, Lib.): Thank you, Mr. Chair.

I apologize to all of the witnesses for wasting your valuable time with this.

That's not to say that Ms. Rempel Garner can't put forward a motion; it's her prerogative to do so.

I'm very happy to finally hear Conservatives talking about the need to fight climate change and reduce GHG emissions. Since I got here four years ago, I've battled them every day in committee and the House with the hopes that one day they would admit that climate change is real and that we need to fight it with every effort at our disposal. Traditional indigenous knowledge actually has a lot to offer to us in terms of that paradigm shift and the systemic change we all know is needed.

Anyway, in terms of the motion, Sustainable Development Technology Canada has been around for quite some time. We know there were allegations of mismanagement. We also know that the minister acted immediately to issue a third party assessment, which has produced a report. Members at the ethics committee are studying this. There are actually two committees currently actively studying this issue. Both ethics and public accounts are working on this.

The ethics committee has been provided with a redacted version of the report, which just redacts the personal information of the people involved so that they don't have any threats against their person. It protects their privacy and confidentiality while still laying bare the details for committee members so that they can get into and really look at the report from a governance perspective to see where there may be challenges with SDTC and its governance practices. Therefore, there is more than enough there in terms of the public accounts and ethics committees both studying this.

I will also note that on November 2, the public accounts committee had the deputy auditor general appear and give testimony. I have read that testimony, and there is some really good testimony there. We also have Minister Champagne, the Minister of Innovation, Science and Industry, appearing before the ethics committee. I think that's actually happening right now.

If anybody really wants to hear about this, we could either put it up on a screen or maybe go down the hall and listen to the testimony. Maybe we should consider adjourning the meeting for today and just visit that committee, because obviously the Conservatives would rather study that than Mr. Cannings' motion, which I think is a better use of our time at this committee.

We also have Standing Order 106(4), which means we have an emergency meeting tomorrow of the industry committee on this topic as well.

This would be the fourth committee that would be studying SDTC, if the Conservatives had their way. I believe our time is valuable. The proper place for this study is with the ethics and public accounts committees. Perhaps two committees looking into it is enough.

However, if the Auditor General officials have announced that they're doing a full audit of this, shouldn't we all put our faith in the Auditor General's work and wait until that investigation and audit is complete before making our judgments on it? For me, if the Auditor General officials are actually looking into it, which is a good thing, we need to let them do their work. I don't see why we would do another investigation here at this committee, which would be redundant, given the fact that at least two other committees are looking into this, and perhaps a third as of tomorrow.

I really think that the committee's resources and time are valuable. We have witnesses before us who bring a lot of wisdom and knowledge to our conversations, and we need to get on with that study.

Lastly, there is also a third party investigation going on regarding the HR practices at SDTC. That's in addition to the Auditor General's audit. That's been proactively commissioned by the minister, as well. The minister found out about the allegations of mismanagement and asked for a third party review. That review has been done, and the accounts of STDC have been frozen until the various allegations are remedied. There is an action plan that SDTC is putting in place to address some of the allegations of mismanagement by the end of December. All of those things were already under way before the Auditor General said they were going to do an audit.

• (1620)

To me, there has been a lot of investigation into this matter already. I don't see why we would forgo the important work at this committee as well. I'll leave it there, but that's where I stand on this.

• (1625)

The Chair: Thank you.

Just to let you know what we have on the speaking list, we have Mr. Tochor, Mr. Soroka, Mr. Cannings and Ms. Rempel Garner on deck. This portion of the meeting will be going until five o'clock. I'm hoping we can get some questions to our witnesses, but I'll turn it over to Mr. Tochor.

Mr. Corey Tochor (Saskatoon—University, CPC): Thank you, Chair.

Thank you, witnesses, for being here today. We're going to get back to the important work of this study here shortly.

I'm not sure, Mr. Turnbull, what you actually meant by any of the comments you shared.

Yes, there are lots of investigations going on. There's the RCMP. There's the Auditor General. There's smoke here. There is a massive fire that is taking place with billions of dollars of taxpayers' money being wasted. We hear about study after study on how we as a country are letting down our research and science community because of the lack of funding. We've heard in numerous studies that the remedy would be to address some of the inflationary pressures that our researchers are facing.

After eight long years, there's no plan from this government to reduce emissions. Their signature tax plan to reduce emissions is in tatters. There are carve-outs being placed in Atlantic Canada. Premiers from across this country are talking together in Halifax about how the mismanagement of the environmental plan has hurt this generation and the next generation in Canada.

The fund that SDTC had was to do the important work of investing in green funds to lower emissions. We found out that it was nothing but a slush fund to go to Liberal insiders. When the truth comes out about how much in mismanaged funds is out there, it's going to make Canadians' blood boil, because we do have issues out there that need addressing. This fund was supposed to be used to hopefully reduce emissions. We found out that it's literally the sponsorship scandal 2.0 and that this government has been funneling money to insiders.

Right now this committee is tasked with finding solutions to problems that are facing the science and research community. We just concluded another study about underfunding and how, because of inflation, which is at a 30-year high right now, people can't afford to live and work and do their research because of this government's actions. Then we find out that the billions of dollars that have been put into this fund are being misused. The science community—this is the SDTC—is set up to address exactly what this committee is supposed to be trying to address, which is to find answers for our Canadian researchers and answers about science being done in Canada, and we are being shut down by the Liberals and we can't study that.

This motion has a completion date of December 31. This is a very timely and important study. We can do both studies that are on the docket, and this one, before we rise for the Christmas break. I hope that the members of this committee will take a pause and ask themselves why they are here in Ottawa, and not just at this committee but in their role in the work that they're doing. Members of this committee should be looking for answers in science. This is going to investigate the agency that was supposed to fund that, but instead the Auditor General, the RCMP, other committees and hopefully this committee are going to be finding the answers that Canadians demand.

Thank you, Chair.

The Chair: Mr. Soroka, you're next, and then it will be Mr. Cannings.

Mr. Gerald Soroka (Yellowhead, CPC): Thank you, Mr. Chair.

I apologize to the witnesses, but because of the timing of this situation, this motion is being brought forward.

I know that many times people have talked to me about the carbon tax. They say, "If we get 90% of this money back, where does the last 10% go?" I did tell them it's supposed to be to lower environmental emissions or to come up with better ways to protect the environment, and yet now you start hearing that it's more of just a slush fund for the Liberal Party to pay to insiders. That's what makes me think that it's quite a disturbing situation. We need to start making sure we're accountable.

There seem to have been so many issues coming out over the last number of years, issues of money that's been spent inappropriately. Mr. Tochor has mentioned several times how our universities and our research facilities have all been looking to have more money available to them. There's money sitting there to make the environment a lot better, but what ends up happening is that the money is paid out only to people who are supporting the Liberal government. That's why I really think we need to look at this motion and get down to the base of it, because it's dealing with people who could be getting this money for science and research. We definitely need to support this motion and move it forward.

I'll keep my statement brief, Mr. Chair.

• (1630)

The Chair: We have Mr. Cannings, and Mr. Tochor's adding himself to the list again, so we may.... We'll take a look at how the time is going on this meeting and then we can have a brief discussion on that after these next interventions.

Go ahead, Mr. Cannings.

Mr. Richard Cannings (South Okanagan—West Kootenay, NDP): As has been said, there's smoke and there's fire here. There's obviously something very wrong going on.

That said, this is being looked at by the ethics committee. It's being looked at by the public accounts committee. It's being looked at by the Auditor General and the RCMP. I mean, I think this is a pattern of what ends up.... I think it's very important to look into this to get the answers, but it ends up that there are four committees doing the same work, calling the same witnesses and getting the same answers.

It's important to get to the bottom of it, but there comes a point when you're wasting time and resources here in committees and Parliament, and I'd think that when you have a situation like this, one that is clearly an operations problem and clearly an ethical problem, it's more in the ambit of ethics and public accounts or government operations than it is for the science and research committee. I'm not in support of moving ahead with studying this.

I'll wait with interest to see what is found in the other committees. I'm getting texts from my colleagues who are studying this at this very minute in other committees. I would just say to let those committees do their work. I think that's important. Piling on things is just like what we were dealing with in my other committee, the international trade committee, where the Conservatives wanted that committee to look into the ArriveCAN scandal when, again, it was

being looked at by two or three other committees and it's not really an international trade thing but an ethics thing. It's a scandal that is being dealt with by our public accounts. It's not what this committee should be looking into, or the international trade committee, for that matter.

I think it's important and I think we as a Parliament should look into this, but I think it would not be fruitful for us to spend that time.

The Chair: Thank you for your clarity on that.

I'm counting votes as we go, and I think I see where these are going.

Hon. Michelle Rempel Garner: I want to thank my colleague Mr. Cannings for his comments, but I want to implore him to think about something.

There is no committee studying the impact that the mismanagement and freezing of this fund has had on Canada's ability to both research and deploy clean technology, particularly as it pertains to ensuring there are readily available, affordable alternatives to high-carbon consumer products and practices. SDTC is the key fund in Canada to do that. There is a lack of movement forward on this. I know Mr. Turnbull claimed the government has taken action on it, but they haven't. This has not been rectified. We're sitting here hearing the government talk about climate change every day, but this is the key fund for academics, small businesses and other people in Canada who are looking at ways to develop made-in-Canada solutions that address greenhouse gas emissions within the Canadian context, which is different from contexts in many other parts of the world.

I reject my colleague Mr. Turnbull's assertion about my party and colleagues. I spent years of my pre-political career, as well as time in cabinet, looking at ways to address climate change in Canada. Just because I question whether or not the carbon tax is working doesn't mean it's a rejection of the need for policy; in fact, it's a responsible question. If our greenhouse gas emissions inventories show that Canada won't even be 50% of the way to making its target, it's incumbent upon the committee responsible for looking at research and development to look at what.... When our key fund for climate change research has been frozen and is under mismanagement, this is our job.

With respect to both Mr. Turnbull and Mr. Cannings, no other committee is looking at that key aspect. I'm sure they're going to be looking at governance. As a committee, shouldn't we be asking whether we're funding climate change research appropriately, or deploying those technologies appropriately, when there is all this mismanagement in the fund? The answer to that is yes. There is a big problem here, so how are we going to fix it? The ethics and public accounts committees are going to be tasked with looking at the governance issues. Our committee should be looking at the funding mechanisms that have been royally messed up by this scandal. There has been no action taken in a year.

For my colleague in Quebec—because I am always trying to ensure there is a Quebec rationale for this as well—SDTC lists Transition énergétique Québec as one of its key partners for funding innovative clean-tech start-ups. It also has multiple other linkages into Quebec. The ability of this fund to fund research not just in other parts of the country but also in Quebec is impacted.

I'm going to say this: Colleagues, a carbon tax only works if there are alternatives available to move consumer behaviours toward a substitute good. In most parts of Canada, carbon fuels and practices are highly inelastic, because we haven't developed and deployed substitute goods. A lot of people in Canada will think, for example, that maybe they won't buy an electric vehicle because we don't have a national system of electric vehicle charging stations or we haven't thought about the electrical grid. We haven't inserted any other technology that could help us displace that behaviour. That is sound public policy. It is for us to ask, "How do we do this more effectively?" That is our job in the science and research committee.

We have a \$1.5-billion fund that has been likened, by a senior bureaucrat, to "free money" and at "almost a sponsorship-scandal level". How can any member of the government stand up and talk about taking climate change seriously, or research and development seriously, if they are unwilling, in this committee, to examine whether our funding mechanisms are appropriately working in this area?

I want colleagues in the Liberal Party to think about this vote carefully. We should be looking at whether or not the key fund in our country that we spent.... This is not an insignificant amount of money, guys; this is \$1.5 billion. Think about what that could do for any community in this country. It could be anything. It could build infrastructure in anybody's riding.

• (1635)

We put \$1.5 billion into this fund, specifically to combat climate change, and it has not been working for over a year. There are significant allegations of mismanagement and the funding is frozen, and we're saying that we shouldn't be looking at it in the science and technology committee? I'd challenge anyone in this room to get up in the House of Commons and say after this, with good faith, that they are taking a science-based approach to climate change after refusing to look at it in this committee. Think about that. I will certainly be bringing that up this week.

I'm amenable if somebody wants to amend the motion to have fewer meetings, but we need to actually look at the impact of this situation and give recommendations to the government on how to fix it. Having it sit for a year and then having the CBC article come out.... Guys, this is our committee's mandate. We've got to do this. We've got to get this done.

Mr. Cannings, I implore you as well as my colleague from Quebec to really think about this. There's no reason we can't chew gum and walk at the same time. We should be looking at this in this committee specifically from the angle of our country's ability to bridge that delta between our emissions reductions target and reality right now, which we're missing by 50%.

Giddy-up.

• (1640)

The Chair: Thank you.

Before we go to the next speaker, I'll say to the witnesses that an important part of our study is the dialogue that we were hoping to have. We have your testimony, which is very valuable, but it isn't the dialogue that we were hoping for, because indigenous traditional knowledge for us settlers is something that we need to be educated on—even how to pronounce the name of your organization. We are trying our best to learn along the path of reconciliation.

I've been talking to the clerk about the possibility of opening up an opportunity to have this dialogue at a future meeting, but with 15 minutes left in this meeting, we won't have sufficient representation of the dialogue to respect your being here.

We'll let you go so that we can continue with what we're dealing with in the committee. We're the only committee that's studying indigenous traditional knowledge and it's unfortunate that we're missing the opportunity today, but hopefully we'll get back to it soon at a time that we can find agreeable to everybody.

I'll let you go, but the clerk just has to quickly say a few things to you on your way out.

We'll go to the next speaker on the list, who is Mr. Tochor.

Thank you to the witnesses for being here and for preparing to be able to talk to us. Unfortunately, we weren't able to satisfy that.

Mr. Corey Tochor: Mr. Chair, just to the witnesses, thank you again for being here. There are specific challenges in the Arctic with climate change that we're not studying or researching, and they are living the effects of our planet's changing climate firsthand.

I cannot say what the study that they were here to provide information on will say, but I suspect that in the end it will be that the federal government should fund research into indigenous and northern traditional sciences and how we could incorporate them into fighting climate change.

This is where the funding aspect will come in. How do we fund that? We have \$1.5 billion of taxpayers' money that is just frozen now. It was collected; the purpose of that taxation was to help lower emissions in Canada, and now we find out that it was really to get insiders rich. It's disgusting to think about the hypocrites out there who cry out about the crisis that we face and then steal money from a fund that was supposed to address that crisis.

I would hope that we all think about this and the importance of getting to the bottom of these issues and how they relate to the science and all the opportunity costs. If there's this massive amount of fraud in the sponsorship 2.0 fund, think of all the science that's not going to be invested in, think of the research that's not going to be done, and think of the discoveries that will not happen because of the theft of taxpayers' dollars out of this fund. I think we do ourselves a disservice by not entertaining this motion for five meetings to get to the bottom of what happened and who got rich.

Thank you.

The Chair: Now we have Mr. Turnbull with some comments.

At some point, I'd like to try to get to a vote on this motion.

Mr. Ryan Turnbull: I find it pretty rich that the party that has not supported any one of the policies or programs that our government has put forward to fight climate change is now using them as a way of blocking witnesses in a study that, I think, is really valuable for this committee, not to mention that we have already made it very clear—and you know very well—that other committees are studying this. Your intention is now to have four committees studying the same topic that the Auditor General is doing an audit of. What could possibly be the motivation for that? What could we possibly get out of doing it four times over?

The other thing is that the Conservatives have said that this is somehow the only fund that our government has, which is absolutely not true. It's not even close to the truth. It's absolutely so far from the truth that it almost surprises me and shocks me how little they know about what our government is doing to help fight climate change.

For example, in the last budget, budget 2023, there was a list of the key investments in programs that our government has made since 2015. There was \$15 billion for the Canada growth fund, \$8 billion for the net zero accelerator initiative and \$4.2 billion for the low carbon economy fund. We have the critical minerals strategy, the zero emission vehicle infrastructure program, the clean fuels fund and the national trade corridors fund. The list goes on and on.

Also, there's the Canada Infrastructure Bank, etc. There are a significant number of other investments that we've made.

The case they're trying to make that says that somehow this fund, which is an arm's-length organization that has been running for quite some time.... I'm not saying that there isn't merit to looking into this organization; I'm just saying that it's happening already with the most appropriate committees looking into that situation. I don't think that this committee needs to do duplicate work.

If you're really about efficiency and the use of resources, then why would you have four committees studying exactly the same topic at the same time? We certainly have limited time in this committee, and we have important work to get on to. Let's move on with it.

I'm really sorry that the witnesses had to suffer. It was a waste of their time here today. Now they've all gone, so we've missed the opportunity.

• (1645)

The Chair: Thank you.

I don't want this to get into a back-and-forth. I think we've been making some strong statements on both sides. I'm hoping that we won't lose another hour of the witnesses that we have lined up. Perhaps we can try to not get back into the back-and-forth, which is really counterproductive.

If there are any clear or new messages, let's put them on the table. Otherwise, I'd like to try to get us to a vote.

We have Mr. Tochor.

Mr. Corey Tochor: I'd like to thank my honourable colleague for bringing up all the other funds. It kind of tweaked on me. It's not just the \$1.5 billion of taxpayers' money being wasted on this fund; it's all the other wasted funds and potential fraud. I think I'd just roughly try to add up quickly all the billions that this member has bragged about that are potentially also in fraud.

I would say amend this motion, then. To this point, we should be investigating all the funds that this government has started to address climate change research. It's not just the \$1.5 billion. Ryan is right: It's in the tens of billions of dollars now that has been funnelled into green initiatives. The truth is coming out that people are getting rich. There are companies that don't even exist that are getting paid. There are numerous examples of wrongdoing that affect our ability as a country to conduct the science and the research that are needed to address the challenges that face our country.

I would amend this motion, then, to include the words.... We'd have to work with the analysts here, I think, a little bit on it. I believe they have the English and French versions on this one. Include the SDTC, because it's the one in the news and it's the one with the most evidence out there of wrongdoing, but it really should be all the funds. It would be, "the SDTC and all other funds allotted to the research of climate change in Canada".

The analysts are typing away over there. Could you repeat what that amendment looks like?

The Clerk of the Committee (Ms. Hilary Smyth): I believe I'm responsible for writing—

Mr. Corey Tochor: The clerk is okay. It should be, "and all other government-funded programs that support climate change research".

The Clerk: Just to confirm, is that after "relevant SDTC officials", or is it further up in the motion?

Mr. Corey Tochor: It's further up, at "surrounding wrongdoing at the fund".

The Clerk: Okay—"at the fund".

Mr. Corey Tochor: Perhaps we could hear that list again. My eyes were watering. I quickly wrote down all the billions of dollars, but I would hope that my honourable colleague would get on the speaking list. Please, I would like to hear again, of all the funds he has listed that have received billions of dollars, which ones we should be investigating for fraud and the misuse of taxpayers' dollars.

Thank you, Chair.

The Chair: Does anyone want to speak to this amendment?

Go ahead, Ms. Rempel Garner.

• (1650)

Hon. Michelle Rempel Garner: Again, to speak to this in the context of the relative inelasticity of carbon fuels in Canada, ostensibly research and development funding in Canada should be driving towards the production and deployment of technologies that would provide affordable and readily available technologies to Canadians to change behaviour on the consumption of carbon fuel. If we're not seeing the results of that investment of, as my colleague Mr. Turnbull said, billions and billions and billions of dollars, then perhaps it is appropriate for this committee to ask how the government can be making better use of that funding from the perspective of ensuring that the money is actually delivering results in substitute goods.

Be it basic research or whatever, the government shouldn't just be articulating spending when this government is not even 50% of the way to meeting our emissions reduction target. They're talking about spending tens of billions of dollars, if not more.

I mean, we have how many billions of dollars...?

Mr. Corey Tochor: It's over \$20 billion.

Hon. Michelle Rempel Garner: It's \$20 billion for sure, just right now. Those are billions of dollars. Where's the reduction in greenhouse gas emissions? How come we're only 50% of the way to meeting Canada's greenhouse gas emissions targets? If spending is the metric, how come we're not all the way there? If Canadians are being asked to pay all of this money, how come we're not 100% of the way in meeting our targets?

That is a question. Maybe this amendment is right. Maybe this is an inconvenient truth that the government needs to look at. We're spending a lot of money and we're not even 50% of the way to making our greenhouse gas emissions targets. We have people who are paying for all these, and we have one part of the country that gets an exemption on heating fuels. Well, what about the people in my riding? You had the minister in Edmonton saying that people should convert from natural gas to heat pumps. Again, seriously, colleagues....

I come out of an academic administration where we were asking questions about how to research and develop technologies and deploy them. If all the Liberal government can do after eight years is list tens, twenties, hundreds of billions of dollars being spent and if we don't have those technologies on the table, if they're not being developed and they're not being deployed for Canadians, if Canadians are having to pay all this money in carbon tax and if that behaviour's not shifting, then maybe something's not working. Maybe

we as a committee should ask, at least when we know there's a "sponsorship-scandal level" of scandal on this stuff, if this is the best way to use this money. Maybe there's a more effective way to support research. I would argue, I think, that in the case of SDTC, there probably is. I think that's pretty clear, at least.

Again, we can talk about solutions, but the government should not be so dogmatically attached to something that's not working when the goal is to reduce greenhouse gas emissions. This government has failed. They're not even 50% of the way to meeting greenhouse gas emissions reduction targets. The reality is that the only time greenhouse gas emissions materially decreased in Canada was under a Conservative government—yet another inconvenient truth.

We're talking about climate change and the fact that this government has failed to deliver. They're going to block a motion, I guess, to study \$1.5 billion of tax dollars that are supposed to fight climate change and research.

I don't know; let's talk about science some more, and climate change. Let's keep doing that in the House of Commons. I'm happy to stand there all day if these Liberals vote against it.

Thank you.

The Chair: I would thank you to address comments through the chair, as I requested at the beginning, so that we're not doing the back-and-forth.

Mr. Tochor is next.

Mr. Corey Tochor: I want to put on the record a bit of why I'm so disappointed in this government and why I think many Canadians are coming to this conclusion.

Of the communication that I get in my office, one piece that sticks out is from Gladys. She's a retired senior and she's out of money. The cost of living is out of control in this country.

Every member here, if they read their emails, which I hope they do.... I hope residents keep emailing me and every MP who is out there, because people have to know about the suffering and the pain that have been caused in Canada.

Gladys was talking about her natural gas bill. It's not a luxury to heat your home in Saskatchewan in the winter; it's a necessity. Gladys was just in total.... She was commenting on how the fiscal crunches have hurt her. I think of Gladys. What's the follow-up from Gladys finding out that one part of the country is not going to be paying carbon tax on its heat this winter, while she will be?

She is already using the food bank. She can't afford to stay in the house that she has lived in for 30-plus years because of the increase in costs. Right now, we have the signature environmental plan that is now getting carve-outs, and not all Canadians are being treated fairly.

Gladys is going to hear about how billions of dollars that were taxed and collected by Ottawa are being wasted. Next, Gladys is going to hear that there were members who voted down a study to find out about and get to the bottom of who got rich.

I am sorry for Gladys and the countless Canadians who are struggling. Know that I'm listening to you. I'm reading your emails. I am acting as best as I can to get the answers you need, and I hope the members of this committee vote accordingly so that we can get to the truth.

Thank you, Chair.

● (1655)

The Chair: I don't have anybody else on the amendment.

Mr. Cannings has his hand up.

Mr. Richard Cannings: I hate to do this.

The Chair: I know. It looks like this is going to go on.

Mr. Richard Cannings: I'm going to be very brief, but when Mr. Tochor says we're voting against finding out who got rich, there are three other committees doing that right now. That's why, again, this is wasting our time.

I think it's a serious problem. I agree with that. Let's find out how it happened, but there are other committees doing that, so let's move on.

The Chair: We have other witnesses for the next part of the study. Some have flown in from Calgary to be with us this afternoon. Others have come from their traditional territories to be with us. I hope we can get to them.

Mr. Lobb has his hand up.

Mr. Ben Lobb (Huron—Bruce, CPC): I don't want to belabour the point either. I don't speak very often about this type of stuff. The only thing I will say is that in the time I've been here, when I think back to the period of time between 2015 and 2019, there were topics that were quite similar being studied by multiple committees. I think we can all remember those.

To think it's limited or that there are only a certain number of committees that can study a certain thing.... I think as long as there is an overlap or a component to it that it makes sense for you to study.... It's up to the members, obviously, on how they vote. You can study things that are being looked at in other committees, obviously, and it's not limited to two or three or four or 10, to be honest with you. I'll just make that point.

Going forward in our committees, I believe that as we work toward getting to a balanced budget and as we look at the mess that the United States is in, as well as Japan, and as we look at the financial crises in other countries, it could be that it is quite a good use of committees' time to look at the expenses and try to find out ways we can better utilize our funds. The U.S. deficit this year is almost the exact same size as the Canadian economy. Our economy is a bit bigger, but that's how critical it is in the U.S.

The last point I will make—and this is actually in your region, Mr. Chair—is that there was an apartment building approved for funding through CMHC financing, which is good, and it's to build about 300 units, which is good, but one of the criteria for the

builder to acquire the lowest interest rate financed through CMHC was that the entire apartment building had to be electrical—the entire thing. There are to be no fossil fuels used at all.

Now, I'm not saying that's wrong; I'm saying that's the fact and that's how the builder obtains the lowest interest rate to build that apartment building.

Where is the problem? The building will be completed—

The Chair: Is this on the amendment?

Mr. Ben Lobb: It is, because the building is going to be completed in 2025. That is exactly the same year that the electrical crunch in the grid in Ontario is coming to pass.

To go back to the motion—

● (1700)

The Chair: We're on the amendment.

Mr. Ben Lobb: The amendment, yes. I understand—the amendment to the motion.

The point is that in everything we do, every decision we make, whether we're looking at the economy, the budget or climate change, we can't be making decisions in Ottawa that are going to impact people in Ontario and potentially cause brown-outs in eastern Ontario.

All I'm trying to say is that committees can study what they deem to be most important. I think that even Justin Trudeau said at one time that committees are the masters of their own domains, and there's long-established proof that you can study similar topics in multiple committees.

I apologize to the folks who were here earlier who didn't get their chance for a full dialogue. Maybe there's a chance, at some time, to make up that time, or maybe they're so mad that they don't want to see us again.

Those are my points, and I'll leave it at that.

The Chair: I think we've gone through the speaking list for the amendment, so now we'll have the vote on the amendment.

(Amendment negatived: nays 6; yeas 5 [*See Minutes of Proceedings*])

(Motion negatived: nays 6; yeas 5)

The Chair: I'd like to suspend for a few minutes while we get set up for our next round of questioning. Try to make it as tight as possible. If we can be back up and running by ten after five, maybe we can get testimonies and some questions in.

● (1700)

(Pause)

● (1705)

The Chair: Welcome back.

Pursuant to Standing Order 108(3)(i) and the motion adopted by the committee on Monday, September 18, 2023, the committee resumes its study of integration of indigenous traditional knowledge and science in government policy development.

It's now my pleasure to welcome, from the Department of Crown-Indigenous Relations and Northern Affairs, Georgina Lloyd, who is the assistant deputy minister of northern affairs; Rebecca Chouinard, director of natural resources and environment; and Sarah Kalhok Bourque, director of Arctic science policy integration.

From the Department of the Environment, we have Marc D'Iorio, assistant deputy minister of science and technology branch; Patrice Simon, director general of wildlife and landscape science; Myrle Ballard, chief indigenous science adviser; and Paul MacDonald, director of the indigenous science division.

Each department will be given five minutes for your statements, and then we'll go to our rounds of questioning.

We'll start with Georgina Lloyd, assistant deputy minister of northern affairs.

Ms. Georgina Lloyd (Assistant Deputy Minister, Northern Affairs, Department of Crown-Indigenous Relations and Northern Affairs): Thank you, Chair. Thank you for the invitation to be with you today and the opportunity to speak on a topic that is very meaningful.

I respectfully acknowledge that I am joining you and that we're able to have this dialogue on the unceded, unsurrendered territory of the Algonquin Anishinabe peoples.

Crown-Indigenous Relations and Northern Affairs Canada recognizes that indigenous-led research and indigenous knowledge are essential to inform broad-scale science and policy-making in Canada. In the department, we have demonstrated experience that integration of indigenous traditional knowledge into policy-making makes for more impactful policy, with meaningful and durable results.

Integrating indigenous knowledge is fundamental to how CIRNAC operates and how effectively the department can deliver on its mandate. Essentially, it relates to the principles of governance and processes that are built upon partnership and collaboration. When we are able to build co-development and co-management approaches into our processes, we know from experience that the results are more durable and also more likely to contribute to self-determination objectives of indigenous partners.

Across the department there are several examples of working in partnership with indigenous peoples through co-development and co-management processes to integrate traditional knowledge with scientific research. For example, the co-developed Arctic and northern policy framework is clear that Arctic and northern peoples want knowledge gaps filled, but they also want changes to the way knowledge is gathered, created and shared. As such, this framework approach to Arctic and northern research features stronger regional and indigenous involvement in the research process, including in setting priorities, in undertaking research itself and in enhanced community-based observation. The Arctic and northern policy

framework is also clear that indigenous knowledge and scientific knowledge will be equally considered in decision-making.

In regard to co-management, the northern resource co-management structure intentionally integrates traditional and scientific knowledge by virtue of the regimes created by legislation. This legislation implements commitments from modern treaties that require the integration of traditional and scientific knowledge into policies, processes, and decisions or recommendations. It also establishes resource co-management boards whose membership includes representatives from regional indigenous communities that have experience in understanding, analyzing and incorporating traditional knowledge.

These are the bodies responsible for decision-making around environmental assessment and resource management across the north. Shared decision-making models and co-management arrangements provide a practical mechanism for integrating indigenous traditional knowledge into government decision-making and management processes for natural resources.

Further to the practices that we have employed in the north, CIRNAC is negotiating chapters in some British Columbia treaties that would commit federal departments to respond to requests from treaty first nations to explore a co-management and shared decision-making arrangement. This provides one potential mechanism through which indigenous knowledge can be integrated with federal decision-making processes on environmental and resource management. It is proposed that the chapter be included in a number of treaties being currently negotiated in British Columbia.

Further, we operate a program, the northern contaminants program. It is one of Canada's longest-running research programs and has some three decades of experience of bringing together western scientific methods and indigenous knowledge, perspectives and approaches to better understand and address the issue of contaminants from distant sources that make their way into northern and Arctic environments and build up in the fish, birds and wildlife that serve as important food sources for Inuit, first nations and Métis peoples.

The northern contaminants program itself generally refers to an approach as a partnership approach, by which government at federal and territorial levels, indigenous organizations and governments, academia and local communities all have a say in the research, the monitoring and the supporting outreach activities that are undertaken—how they are done, by whom, and how the results will be communicated. The program recognizes that indigenous peoples, their representative organizations, and their knowledge and input in direction are necessary at all stages of the research process.

• (1710)

CIRNAC will continue to work in partnership with indigenous peoples to develop new, collaborative ways to integrate indigenous traditional knowledge.

I look forward to the results of this committee's study, which will help inform those discussions into the future.

• (1715)

The Chair: Thank you very much. I'm looking forward to that as well, thanks to the testimony we're getting. It will help us along that way.

Now we're going to Marc D'Iorio, please, from the Department of the Environment.

Dr. Marc D'Iorio (Assistant Deputy Minister, Science and Technology Branch, Department of the Environment): Thank you, Chair.

I will share my opening remarks with Dr. Myrle Ballard, who is my colleague here today.

I will start by saying that science in and of itself is the method we use to understand our physical and natural environment, through measurement, through observation and through experimentation.

In the scientific community, it has become very clear that we need to take an interdisciplinary approach, one that considers different knowledge systems, such as western science and indigenous science.

Indigenous people have been valued partners of the government in conserving and protecting our environment. This partnership also includes participation in international delegations to groups like the IPCC—the Intergovernmental Panel on Climate Change—and the IPBES, which is Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Their contribution to Canada's international work has been extremely valued and has been leading in that since.

Early last year, the department created an indigenous science division, which is indigenous-led by Dr. Ballard. It is meant to advance and consider indigenous knowledge systems at the same time as we progress in looking at western science. Our goal is to make sure that we consider all knowledge systems at the same time when we start our work.

Indigenous science brings together traditional knowledge. It brings together long-term observations of our physical and natural environment. It has a perspective of looking at cumulative impacts on ecosystems and at the multiple stressors affecting our environment. It is really a value-based approach, a holistic approach to the environment, as well as an interdisciplinary approach.

I will stop here and just state that this is a journey for us. We are committed to including indigenous science and to considering knowledge systems from the start and throughout the work we do as a department.

I will turn it over to Dr. Ballard.

Ms. Myrle Ballard (Chief Indigenous Science Advisor, Department of the Environment): Thank you.

In January 2022, Environment and Climate Change Canada created a new indigenous science division to best integrate indigenous science or traditional knowledge with western science, better known as two-eyed seeing, into government policy development.

ISD, the indigenous science division, was structured to be most effective in combining synergies between indigenous and western

science. To do so, the indigenous science division developed three pillars: bridging, braiding, and weaving.

Bridging means to connect the two sciences together to foster awareness, understanding, and recognition of indigenous science as a science distinct from and equal to western science.

Braiding brings together the different ways of knowing and being by integrating the policies in indigenous science and western science that can work best.

Weaving is to ensure that both indigenous and western science are employed to complement each other for better-informed decision-making.

While we integrate the indigenous science into government policy development and develop the indigenous science lens to ECCC's science, policy and program activities, it's important to be guided by the importance of indigenous science indicators, tools, and perspectives, such as repatriation, reconciliation, renewal, respect, reciprocity, responsibility, and relationships.

Indigenous science tools must be applied to inform approaches regarding, for example, environmental issues, as well as ECCC's work on the national boreal caribou knowledge consortium, the oil sands, the shellfish of Tsleil-Waututh and the polar bear research in the Inuit Nunangat.

This must be accomplished in a manner that aligns with the approaches specified by indigenous nations, governments, the Truth and Reconciliation Commission, specific communities and international instruments such as the United Nations Declaration on the Rights of Indigenous Peoples and the United Nations Framework Convention on Climate Change.

The effective use of bridging and braiding will allow indigenous science to weave indigenous science and western science into reports and publications that will be used by decision-makers, governments and other parties.

Additionally, bridging, braiding and weaving indigenous science priorities and indigenous leadership to the entire spectrum of science practice within the federal government is essential in supporting Canada's commitment to our renewed nation-to-nation relationship and reconciliation with indigenous peoples.

• (1720)

The Chair: Thank you.

We're a bit over time, but I wanted to make sure we could get as much of your thoughts in as we could, Dr. Ballard. Thank you for doing that. If there's more, you can send the information to the clerk as well, to make sure we capture all of your thoughts.

We're going to move on to our round of questions, starting with the Conservatives and Gerald Soroka for six minutes.

Mr. Gerald Soroka: Thank you, Mr. Chair, and thank you to the witnesses for coming forward.

I'm not certain who to direct this to, but the recent details about the mismanagement of funds at Sustainable Development Technology Canada have raised concerns about the oversight of the government-funded green initiatives.

How does the Department of the Environment guarantee that similar mismanagement will not occur in this program, and who will oversee that from happening?

Mr. Ryan Turnbull: I have a point of order.

I'd like to know how this question is relevant, Chair, to the current study, which is on indigenous knowledge.

The Chair: We can work it into indigenous knowledge through the answers.

Mr. Soroka, go ahead.

Mr. Gerald Soroka: That's actually.... It was just before the point of order. I didn't have a chance to finish. That's exactly what I was saying, that it's part of the indigenous guidelines as well. How does this relate?

That's to the Department of the Environment. I think it's Mr. D'Iorio.

Dr. Marc D'Iorio: Mr. Chair, I am the ADM of science and technology. We do not run programs on clean technologies. We do, however, work very closely with many indigenous groups throughout Canada on aspects of community-based monitoring and on wildlife research in the north. There are very many examples of work we do in collaboration with our partners.

There may be other witnesses in better positions to answer questions with respect to the programs that they run and the framework that the department has with respect to corporate management.

Mr. Gerald Soroka: Is all of the funding or money you get directly from the government? Are there no other opportunities to get dollars? You don't apply for any funds or anything?

The Chair: Are we having a translation problem, Mr. Blanchette-Joncas?

[Translation]

Mr. Maxime Blanchette-Joncas (Rimouski-Neigette—Témiscouata—Les Basques, BQ): Mr. Chair, there was no interpretation, but it looks like everything is working fine now.

Thank you.

[English]

The Chair: Okay.

I'm watching the time, but I'll make allowances for the interruption there with the technical difficulty. I think we're okay to go.

Mr. Gerald Soroka: Do you need me to repeat the question, or is it up to the witnesses to answer?

The Chair: The witnesses are asking for the question again.

Dr. Marc D'Iorio: Yes, I'm sorry; could you repeat that?

Mr. Gerald Soroka: I'll just repeat the question.

Do you receive money only directly from the government?

You do not apply for any other government grants or other government funding. The government is the sole source of funding for any programs or operations that you run.

• (1725)

Dr. Marc D'Iorio: With respect to science and technology, we do work with government funds. We work with academia through a number of mechanisms. We work through some programs, such as the northern contaminants program, with a number of indigenous groups. We receive funding through the oil sands monitoring program in Alberta in the joint management of the program with the Government of Alberta to monitor the entire region for air, water and wildlife.

Mr. Gerald Soroka: I'll go on to another question, then.

On reserves, the carbon tax.... Because of the remoteness of a lot of these reserves, they don't pay personal income tax because of the exemptions, yet carbon tax is charged on a lot of products that are being brought in to the organizations or businesses that operate there. Given that there's an increase in taxes and the cost of living, how does your department justify the carbon tax in places that are quite remote, such as indigenous reserves?

Dr. Marc D'Iorio: Again, I would say that the carbon tax is not our area of responsibility at the science and technology branch. We work with a number of communities. We do a lot of field work, and everybody's impacted by the cost of living. We manage through our budgets and through priorities to accomplish the work we need to do.

Mr. Gerald Soroka: Do you find that the budgets for science and research need to be increased because of the carbon tax? Is that an issue or not?

Dr. Marc D'Iorio: We do not see that, no. Where we are at is that we're focusing our research where it needs to be focused, and we are managing within the budgets that we are given, given all the externalities that impact budgets.

Mr. Gerald Soroka: You were talking a lot about how you work with indigenous knowledge, and I was having some issues determining what the difference is between using their indigenous knowledge versus just consulting with the different bands. Could you please give me a little better example of some of the differences between consultation versus indigenous knowledge?

Ms. Myrle Ballard: Indigenous knowledge is very different from consultation. Consultation is, for example, when we're talking to you regarding a specific issue. That would be consultation.

However, we go to the indigenous knowledge holders for them to share what they know about the environment, what they know about climate change and what they know about changes within species in real time. It's their knowledge that is really critical when we develop policies.

We go to them, and they tell us what's happening on the land, and this is the knowledge that we want when we start the critical work that we do.

Mr. Gerald Soroka: Okay. That's what I'm saying—

The Chair: Thank you, Mr. Soroka.

That answer gives us a good perspective on exactly what we're trying to study here. Thank you for that.

Now we will go to Ms. Diab.

Ms. Lena Metlege Diab (Halifax West, Lib.): Thank you very much, Mr. Chair.

Thank you very much to the departmental officials who are with us today.

It's the first day of our study on indigenous traditional knowledge and science in government policy development. We were hoping to get into it an hour earlier. Unfortunately, that was not the case.

This is the only committee that's looking into how indigenous traditional knowledge would help us in what we're studying. Let me ask this question: How can we integrate indigenous knowledge to fight climate change?

Mr. Chair, I am going to share my time with Mr. Turnbull, because there wasn't much we could do here this afternoon.

The Chair: Is that your question?

Ms. Lena Metlege Diab: That's my question.

Whichever department would like to answer that, feel free.

Dr. Marc D'Iorio: Again, the framework developed in the department by Dr. Ballard is one of understanding that we're starting at different places when it comes to knowledge and when it comes to science. It is one of first bridging, in a first step, and then braiding and then weaving knowledge systems together. We don't often speak of integration of knowledge per se, but we do talk about this systematic approach of going through things.

With respect to climate change, there have been many perspectives. We are working, for example, with the Inuit Circumpolar Council on some of the international work that's taking place on the fact that the Arctic is warming three times as fast as the rest of the world. They are sharing their perspective.

It's very true on the wildlife side. My colleague Patrice Simon leads the wildlife research into polar bears and caribou. Perhaps I'll ask him to say a bit more on this.

• (1730)

Mr. Patrice Simon (Director General, Wildlife Landscape Science, Department of the Environment): Thank you, Chair.

I would say that using traditional knowledge and western science enables us to provide more comprehensive science advice and information on topics. We would use the perspective of western science along with knowledge gathered through and with indigenous communities so that people who make policy and make decisions consider that knowledge as they implement the decisions they have to make.

Ms. Lena Metlege Diab: Thank you.

Go ahead, Mr. Turnbull.

Mr. Ryan Turnbull: Thank you.

Dr. Ballard and all the witnesses, thank you for being here. This is really important work.

I had some first-hand experience in and around the oil sands area and working with the first nations there—the Mikisew Cree, the Athabasca Cree first nation and Métis Local 125. They were doing environmental monitoring on the water and on the land with indigenous community members. The elders were passing along some of the traditions and knowledge they had accumulated.

From talking with them, I can imagine and understand that it must be challenging to keep that traditional knowledge alive. I also bore first-hand witness to just how much it can really enhance our understanding, which I think is a bit limited with western science, although western science has been a dominant paradigm.

Dr. Ballard, it seems to me that indigenous traditional knowledge can really enhance our understanding of what has an impact on the environment. Could you maybe speak to some examples and talk about how that's being integrated across different programs within ECCC?

The Chair: We have about two minutes. If we could think of the main points, that would be great.

Ms. Myrle Ballard: Okay, I'll make it fast.

We just completed a workshop a couple of weeks ago regarding weather predictions. We held a scoping workshop within the department. We gathered indigenous knowledge-holders regarding their knowledge and what they can share with us regarding weather. This was a very good workshop. This is an example of how the department and knowledge-holders can collaborate to make better-informed decisions. We gathered a lot of information on weather and weather patterns and weather predictions.

I'll give you an example. When a certain species of animal behaves a certain way, they give an indication of weather patterns and what the weather is going to be in springtime. From there, we can determine whether or not there's going to be a drought, whether or not there's going to be flooding. Using these indicators, we can start developing better response mechanisms in order to deal with flooding as a result of climate change, because of the indigenous people's knowledge of an animal species and the land. They work together. We can share this information with the rest of Canada in better ways to develop better policies to do predictions.

Another one that's really important is the use of indigenous language. It is so critical because of the work I'm doing with the universities. I'm using Anishinaabemowin, which is my language, my mother tongue, to understand the names of places and spaces.

For example, you probably know what “Saskatchewan” means. “Saskatchewan” means in my language “where the water runs dry” or “where the water evaporates”. When you start to develop the indicators from why the province was named as such before there were borders, you will start to understand the indicators over time and from then to the present what happened, and you can start developing the indicators. This is indigenous knowledge and the indigenous science we see when the names of places and spaces across Canada....

The name of Canada is also an indigenous name. Where we're situated is an indigenous name. To understand these names and the work we do, they're all critical. I know that's kind of an aside I'm going off on, but they need to work together.

• (1735)

The Chair: Thank you.

The committee structure is very difficult for a subject like this.

We will go to Monsieur Blanchette-Joncas for six minutes, please.

[*Translation*]

Mr. Maxime Blanchette-Joncas: Thank you very much, Mr. Chair

I welcome the witnesses joining us today for this important study. My first questions will be for the chief Indigenous science adviser, Dr. Ballard.

Dr. Ballard, thank you for joining us today.

I know that some people might mistrust Indigenous knowledge since it's not always scientifically verified. However, I'm open-minded and I'm pleased that we're conducting this important study today in an attempt to demystify a number of things.

I'd like you to comment on information released by the Quebec government, in particular by Patrick Beauchesne when he was deputy minister of the environment and the fight against climate change. He had sent a missive to the federal government regarding Bill C-69, which sought to replace the National Energy Board Act with the Canadian Energy Board Act, among other things.

Mr. Beauchesne wrote that systematically placing Indigenous knowledge on equal footing with scientific data could prove problematic where Indigenous knowledge and science were found to be in contradiction.

If Indigenous knowledge contradicts science, how will it be possible to work around that and make decisions?

Dr. Marc D'Iorio: If I may, I can partially respond to that.

At the last meeting, I believe a witness said that it's very common to have differences of opinion in the scientific community. In fact, it's part of the scientific method, which is to debate the merits of our opinions. It's no different when it comes to Indigenous knowledge and science, and it's no different when it comes to Indigenous science and Western science. I think that's part of the process.

Again, this is an avenue that the department began exploring by establishing the Indigenous Science Division. We have a way to go yet. In a very broad sense, it's part of the scientific method, which is to gather various points of view and base oneself on the data to come to a consensus or develop different models.

[*English*]

Ms. Myrle Ballard: One of the ways to resolve conflict is to create an understanding of both indigenous and western science to understand where indigenous science is and the knowledge behind it.

Western science is a domineering science. The previous speakers talked to the colonization. I'm talking to the indigenous knowledge and indigenous science that we had that was also colonized. Bringing that awareness and why that happened to the forefront is really critical in alleviating the conflict.

What we have to do is understand why that happened and bring it to the forefront to understand that both sciences are really important. Indigenous and western science are both sciences. It's just that western science is used more in labs and experiments, etc., but indigenous science is like that too, when we go to the land for the experiments that we do.

For example, when we develop traditional medicines, we have the traditionalists, the medicine-makers who take the medicines from the land. They know they have to take the plant or whatever it is they're using from as far away from human contamination as they can. They have recipes that they use as well. That's the same as in a lab. There are recipes that have to be tested. There's the colour and the consistency. That's the same as western science.

Once you start to understand these and that the conflict can be resolved with the knowledge of the species.... Indigenous peoples are the ones who know what's happening on the land. Building that relationship between western and indigenous science is really critical.

• (1740)

[*Translation*]

Mr. Maxime Blanchette-Joncas: Thank you for those clarifications.

Can you clearly explain the mechanism that will lead to decision-making when the data, the knowledge are in contradiction?

How do you go about making a decision in situations like that and influencing public policy?

Dr. Marc D'Iorio: The first thing we try to do is come up with our methods and approaches in tandem. Doing so often helps us get ahead of the problems we're likely to run into later.

It's important to understand that the Science and Technology Branch plays a scientific advisory role. Our direct product will often be to publish something in a journal or on various media. At the end of the day, what we're trying to do is translate scientific publishing into scientific advice and contribute to the development of policy, regulations or action within the department or government. That's kind of how we're trying to approach the problem we're facing.

[*English*]

The Chair: Okay. Thank you.

We'll go now to Mr. Cannings. Go ahead, please, for six minutes.

Mr. Richard Cannings: Thank you.

Thank you for being here today.

This is something that I used to work with many years ago. Twenty to 25 years ago, I was an ecologist trying to develop regional ecosystem recovery plans. I also worked on the Committee on the Status of Endangered Wildlife in Canada for 10 years, at the beginning of the time when indigenous knowledge was being considered. It was an awkward time, because we didn't know how to work together. That was one of the reasons I wanted to bring this study together: to find out what we have learned in those 20 years about bridging these.

I would like to start with you, Dr. Ballard. You mentioned this idea of bridging, braiding and weaving. For instance, when I was doing ecosystem recovery plans, we would have digital maps. The western scientists would put layer upon layer upon layer of things they knew, but it was difficult to layer on indigenous knowledge. It just didn't seem to work in the same way.

I'm just wondering, as an example, how that bridging, braiding and weaving process would work in a broad study like that.

Ms. Myrle Ballard: I'll give an example of the work that we did regarding clam gardens on the west coast. This is a really good example of the bridging, braiding and weaving.

The bridging happened when we asked the people of the Wei Wai Kum Nation about their knowledge of the ancient clam gardens that have been in existence for thousands of years. That's the bridging part. They shared with us their knowledge of the ancient technology, the science and engineering technology that was invented by the indigenous people on clam gardens.

The braiding happened when they started to share the knowledge with us about the clam gardens. When we went to them, they gave us a lot of information, more than what we asked for. For example, they gave us information regarding the food they ate back then—the food systems they had in place. They shared with us the technology they used to build the clam gardens. They shared with us the importance of the clam gardens within their little ecosystems and which other species lived within the clam gardens beside the clams. That was the braiding. From there, we started to braid these. We started to braid, for example, food and the technology that they used in the ecosystems.

Then from there we are developing a video as well, which is going to be shown within our department and across the department.

It's going to be shared with the community as well. That is weaving—weaving the knowledge of these systems, the knowledge of the clam gardens and western science. We'll be developing reports as well as publications.

That's an example of how knowledge is being bridged, braided and woven.

• (1745)

Mr. Richard Cannings: Okay. Thank you.

Ms. Bourque, do you have similar examples that you deal with on science policy integration? I'm just wondering if there are examples like that in the north that you can speak to.

Ms. Sarah Kalhok Bourque (Director, Arctic Science Policy Integration, Department of Crown-Indigenous Relations and Northern Affairs): Yes, thank you.

There are a lot of examples from the north of knowledge systems coming together. It's not necessarily one system being integrated into another, but as my colleague says, it's braided or woven. They complement each other and lead to an overall more robust understanding of the situation, of an issue.

I'm most familiar with work on contaminants through the northern contaminants program. Bringing indigenous knowledge-holders together with scientists leads to better science, to better questions that are asked. It's more informative for policy and it gives a much more thorough understanding. If we sent only scientists to look at contaminant levels in a particular food source, wanting to know how it affects health, then they'd need to know what parts of the animal are consumed, at what frequency and in what seasons. All of these affect the contaminant levels.

Indigenous knowledge might not give you the micrograms per gram of contaminant levels, but it will tell you really important information that's going to inform health risk advisories, for example. It's by working together from the earliest stages, shaping the research questions together, and finding the areas of common interest and concern that lead to a thorough understanding.

The Chair: Thank you for getting that in.

Looking at the clock, I see that it would be hard to do another round of questions, unfortunately, with the interruptions that we've had.

I'm going to thank the witnesses for being here.

Maxime, you have your hand up.

• (1750)

[*Translation*]

Mr. Maxime Blanchette-Joncas: Mr. Chair, I would ask my colleagues to grant me 37 seconds to announce a nice surprise to end the meeting.

If my colleagues have no objection, I'd like to introduce a notice of motion for the committee's next study.

[English]

The Chair: I see the committee saying yes. It's at the will of the committee, so sure.

[Translation]

Mr. Maxime Blanchette-Joncas: Thank you, Mr. Chair.

I move:

That, pursuant to Standing Order 108(3)(i), the Standing Committee on Science and Research conduct a study on the balance of federal government funding among Canada's universities, and more specifically on the concentration of funding among U15 member universities in comparison with small and medium-sized universities; that the committee devote at least 12 hours to the study and that the committee report its findings to the House.

[English]

The Chair: Thank you. That's succinct.

That's a notice of motion. We'll pick that up next time we're doing some committee business and see what we can do with that.

Thank you so much to the witnesses. I wish we had more time, but it's the structure that we're working under. If you have more information, please do send it to us. I apologize for the shortness of this meeting.

With that, the meeting is adjourned.

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