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# Standing Committee on Science and Research

**EVIDENCE** 

## NUMBER 092

Tuesday, June 11, 2024

Chair: Ms. Valerie Bradford

## **Standing Committee on Science and Research**

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**●** (1110)

[English]

The Chair (Ms. Valerie Bradford (Kitchener South—Hespeler, Lib.)): I call this meeting to order.

Welcome to meeting number 92 of the House of Commons Standing Committee on Science and Research.

Before I begin, I'd like to ask all members and other in-person participants to consult the cards on the table for guidelines to prevent audio feedback incidents. Please take note of the following preventative measures in place to protect the health and safety of all participants, including our interpreters.

Use only the black, approved earpiece. Keep your earpiece away from the microphones at all times. When you're not using your earpiece, please place it face down on the sticker placed on the table for this purpose.

Thank you all for your co-operation.

Today's meeting is taking place in a hybrid format. I'd like to make a few comments for the benefit of members. For the members in the room, please raise your hand if you wish to speak. For members on Zoom, please use the "raise hand" function. The clerk and I will manage the speaking order as best we can, and we appreciate your understanding in this regard. All comments should be addressed through the chair.

Pursuant to Standing Order 108(3)(a)(i) and the motion adopted by the committee on Tuesday, January 31, 2023, the committee is resuming its study of science and research in Canada's Arctic in relation to climate change. This is our sixth and final meeting on this topic, and I know that we have all found it to be very fascinating.

It's now my pleasure to welcome from Inuit Tapiriit Kanatami, Natan Obed, president, and Carrie Grable, director, Inuit Qaujisarvingat.

You will have up to five minutes for your opening remarks after which we'll proceed with rounds of questions.

President Obed, I invite you to make an opening statement for up to five minutes.

Mr. Natan Obed (President, Inuit Tapiriit Kanatami): Nakurmiik.

Good morning, and thank you so much for having me here to discuss such an important topic to Inuit.

As introduced, my name is Natan Obed.

Inuit Tapiriit Kanatami represents the 70,000 Inuit in Canada. Our homeland is called Inuit Nunangat, and there are four geopolitical regions in our jurisdiction: Nunatsiavut in northern Labrador, Nunavik in northern Quebec, Nunavut as a whole—the public government was created by the land claim, but there is an Inuit treaty organization called Nunavut Tunngavik that represents the rights of Inuit within Nunavut—and the Inuvialuit region, which is represented by the Inuvialuit Regional Corporation.

At ITK, one of our biggest priorities is combatting climate change, as well as ongoing adaptation and mitigation efforts regarding a changing Arctic. We created a national Inuit climate change strategy, which was released in 2019. Also, in the research and science field, we created the national Inuit strategy on research, which was launched in 2018. We've tried to use these tools to interact with all of our partners—government included—regarding our research priorities and climate change priorities.

As I'm sure you've heard, the Arctic is warming at a rate of up to four times faster than the global average. Inuit living within Inuit Nunangat have a wide range of socio-economic challenges that are further exacerbated by climate change, especially things like food security and health and safety.

The ability to travel within our homeland the way we always have, and to use our knowledge to navigate within our homeland, is jeopardized by a changing Arctic. We've lost over 40% of our sea ice cover in the last two decades. That is a massive challenge for us when it comes to general travel, considering that sea ice is our highway, especially from—usually—November until June. There is a significant part of the year now when we don't have access to hunting and fishing as we did before or are able to travel among communities. There are only two communities that have road access between southern Canada and the Arctic, and there are very few, if any, road networks among Inuit communities. Therefore, the sea ice—and winter in general, in a terrestrial sense—creates opportunities for us to travel and connect in ways that are now jeopardized.

If we continue to emit greenhouse gases at this rate, we could see a temperature increase in our Inuit Nunangat area of well over 10°C from the 1951 to 1990 averages, which would have catastrophic effects on our biodiversity and communities. We've tried to work in partnership with the Government of Canada and, as best we can, with the research community, but significant barriers remain, and I look forward to chatting with you about these today.

At the very heart of this is the challenge that the Government of Canada and provinces and territories have in recognizing Inuit as a specific level of government with specific rights and specific partnership opportunities beyond the traditional ones the Government of Canada understands, whether they be nation-state to nation-state or the federal government versus provinces and territories. That extends to the way Parliament does its business, the way legislation is crafted and the way orders in council are adjudicated or administered. This ends up leading to the exclusion of Inuit or the individualization of Inuit, instead of working with Inuit as collectives.

Thank you for your time, and I look forward to this conversation.

• (1115)

The Chair: Thank you so much for your opening statement.

I will now open the floor to questions. Please be sure to indicate to whom your questions are directed.

I have MP Rempel Garner on the list.

Are we going to switch? Is it Mr. Lobb going first and Michelle in the next round?

Mr. Ben Lobb (Huron—Bruce, CPC): Yes. Just like we planned it, Madam Chair.

The Chair: Okay. That's fine.

The floor is yours.

Mr. Ben Lobb: Thank you very much.

Thank you for attending.

We've had many different groups and people appear before this committee. There's one takeaway for me. Maybe I'm wrong or right; I don't know. It seems like there are a lot of organizations—up to 40, at least—whether they be in university research or different groups that focus on studying the climate and other things in the Arctic, but many don't live where they are doing the research. I'm not faulting them for that, but that's a statement of fact. They rely a lot on the people who actually live there.

Do you think it would be beneficial to the universities and research organizations to put more of a focus on being able to live, work and research in the communities they're supposed to be studying?

Mr. Natan Obed: Thanks for the question.

We've struggled, as Inuit Tapiriit Kanatami and/or Inuit treaty organizations, to fight for a space for the research priority setting and the research funding, whether it be with the federal government, within academia or within the tri-council. We've made some inroads, but largely not.

The vast amount of funding that is targeted for Arctic science flows through systems that are in the south, and it benefits academic institutions, governments or relationships that are all south to south. People build their careers and live comfortably in the south, while being experts about us and about our environment, or about climate change in Inuit Nunangat. Therefore, priority setting for Inuit and for Inuit communities is a transformative change that we would like to see.

We see the Government of Canada investing in infrastructure, especially in Polar Knowledge Canada in Cambridge Bay. I think that is a very positive development, although the governance of POLAR is still of great concern to Inuit in the way in which the Government of Canada has only used its systems to populate the governance of that institution and the priority setting for it.

We hope that in the future, there will be more partnership-based approaches to Arctic research, but also that Inuit research priorities and Arctic community research priorities will be held in as high esteem as the research priority setting that happens in the south.

**Mr. Ben Lobb:** What are the priorities? If somebody said to you, "Give me your top three," would you have a top three?

Mr. Natan Obed: A lot of our priorities are based on adaptation and mitigation for the ongoing climate change effects in our communities and the ability for our people to adapt to them, or for our communities to even survive. We've faced existential threats of, say, erosion caused by either extreme weather events on the coast or permafrost thaw in the terrestrial regions. We have the collapse of species like caribou. We need to understand more about that and how to ensure that our wildlife can be as healthy as possible, even within a changing Arctic.

We have a number of different imperative research questions to meet the threats that are now caused by climate change. On the other side, on the academic side, we have a lot of other research questions that are important to institutions or to different fields of science. We're not here to criticize any of those; we're just here to say that some of them don't appear to be as urgent to answer as the ones that affect our communities and our people every day.

**●** (1120)

**Mr. Ben Lobb:** When all the researchers come up—I'm guessing it's from around now until the fall—where do they all stay? I'm just curious about that. When they're up in your area, where do they stay?

**Mr. Natan Obed:** Well, some of our communities don't even have a hotel. If people are coming through, often people stay in other people's homes and, then, if people are doing field research on the land, they have remote camps. Inuit either will partner with researchers or be administrative support for researchers through guides and through helping out with people who are doing work by having base camps or providing guiding support for people.

On the bigger challenges we have, especially when we're doing work on, say, infrastructure development, if there's a big housing build in a community, a lot of those hotel rooms are gone six months out. All of our construction happens in the same window as the research. I think the capacity to house researchers in the Arctic definitely is a limiting factor when it comes to what can happen, but to answer in just one word, it's very difficult.

The Chair: Thank you. That's our time. That was perfect timing.

Now we will turn to MP Jaczek for six minutes.

Hon. Helena Jaczek (Markham—Stouffville, Lib.): Thank you, Chair.

Thank you, Mr. Obed and Ms. Grable, for coming again to our committee. We didn't have the benefit of your wisdom at your previous attendance here.

I do want to reference something, Mr. Obed. It was eight years ago, but your words to the Ontario legislature back in June 2016 have remained with me through this time. You spoke particularly about the resilience of Inuit people, and surely that's being tested now with climate change. Obviously, it is a very real threat, and the resilience is so impressive in the face of that.

You have talked about priorities and, as I understand from the national Inuit strategy on research, you've identified the priority areas. Of course, we have heard a lot about physical infrastructure and so on, but would you be able to elaborate a bit on the pressing health challenges facing Inuit communities today and how research can address these particular challenges?

Mr. Natan Obed: We're quite fortunate to be in the midst of Qanuippitaa, a national Inuit health strategy. We're doing fieldwork now across our four regions. Fieldwork has already been completed in the Inuvialuit and the Nunatsiavut regions. This is building off of the international polar year Inuit health surveys that were point-intime captures of Inuit health and wellness across Inuit Nunangat.

We are now doing a health survey that will be stable and sustainable. We hope to do it every four to five years. We're in the midst of creating that first cohort, that first summary data, that will allow us to be very clear about Inuit health status in 2023 or 2024. We relied on the aboriginal peoples survey and other related health surveys in the last 20 to 30 years. This is a definite step up.

Regarding our health status, we have huge challenges in regard to food insecurity and poverty. Our food insecurity rates are upwards of 70% for moderate and severe food insecurity. Our overcrowding rates are around 55%. Our tuberculosis rates are over 300 times the national average of those born in Canada. We also have a life expectancy that is over 10 years less than the Canadian life expectancy.

We have essential challenges when it comes to health. Some of that comes from lack of access. Our morbidity rate for cancer treatment is much higher than the Canadian average. The challenge that we face is health access. Most of our health care comes through referral structures. We have health centres in communities, but they consist of nurses who provide care and refer all patients who have any significant health challenge to regional centres. Often those regional centres are then referral centres to the south.

Much of the acute care that happens for Inuit across Canada happens in St. John's, Montreal, Ottawa, Winnipeg, Edmonton and Yellowknife. That system has saved lives, but in its construction is a barrier to upstream care and to ensuring that those who have significant illnesses can be diagnosed and treated quickly.

We also have challenges in the climate sense. We have less access to hunting, fishing and traditional foods. That has then caused challenges for our diet and also for the social fabric of our community and the way in which we share with one another, the way in which we pass down knowledge and information, and then the overall health of our people.

**(1125)** 

**Hon. Helena Jaczek:** I'll just follow up a little bit on the food security piece. You've talked about adaptation and mitigation.

Is there any research that has shown any cause for optimism for growing foods perhaps farther north than was ever able to be done previously so that there's less reliance on shipping foods in to your communities? Is there anything there that looks more positive?

**Mr. Natan Obed:** Growing up in Nunatsiavut, we had Moravian missionaries from the 1700s until now, so I grew up with rhubarb being a part of my diet or seeing people trying to get very tiny potatoes out of a garden. That's about the extent of it.

We've experimented with greenhouses, but the challenge is that greenhouses are tied to infrastructure costs and to energy costs.

We need to get our communities off diesel. We need to be able to have more established infrastructure to allow for goods to transit across Inuit Nunangat and to the south and back to the north to be able to build local food options.

Right now, our food-producing capacity is often feeding people in other parts of the world as well, and that's a systemic challenge.

The Chair: Thank you.

**Mr. Natan Obed:** All of the fish that are caught off 0A and 0B in the Davis Strait often go to China. A lot of the caribou that are hunted and the char that are caught in inshore fisheries end up being served in restaurants in southern Canada or other places.

**The Chair:** I'm sorry. That's our time. We might have other people who want to follow up on that. Thank you.

MP Blanchette-Joncas, you have six minutes.

[Translation]

Mr. Maxime Blanchette-Joncas (Rimouski-Neigette—Témiscouata—Les Basques, BQ): Thank you, Madam Chair.

Welcome to the witnesses who are with us today.

Mr. Obed, the committee heard from researchers and experts who conduct northern research, including people from the Centre for Northern Studies, based at Université Laval, in Quebec City.

They carry out projects with Inuit and other communities, through co-development. They told us how challenging co-development can be, given that resources are quite limited. In their view, co-developing research projects with Inuit communities is the only way to carry out research that not only is relevant, but also truly addresses your needs.

I'd like to hear your thoughts on that.

• (1130)

[English]

**Mr. Natan Obed:** Yes, there are very specific challenges in partnering with southern-based research institutions to do meaningful work in Inuit Nunangat. I'd like to talk about a couple of partnerships we've had that have actually worked, but have only worked because there has been a true partnership approach from start to finish, and a very difficult time in doing it.

ArcticNet is one of these networks. It's housed at Université Laval and has received federal funding, most recently from the strategic science fund. Inuit are now partners with ArcticNet, along with the Inuit Circumpolar Council Canada, to chart the course of the next five years for this particular network. It brings together academics, industry, governments, Inuit and other indigenous peoples into a common research program. There's a partnership-based approach to this work.

I think there is a natural misunderstanding that many of us have with one another, whether it be the roles and responsibilities of the federal government or the particular makeup and rules around academia, and then the individuals who then come to us for partnerships, mostly principal investigators, professors with research chairs and their particular views on the world and thoughts about partnership. Then there's our governance, which is often not understood very well—without making that into a negative statement.

The ability for us to come together and work together does take time. It is, by its very nature, challenging. The terms and conditions that are put on all of us in all of our roles make the windows that we have to collaborate much smaller. But we have a common interest. As long as we can accept and celebrate all of the different priorities that we have together, I think that is the path forward.

The other example is the research partnership we've recently had with the United Kingdom, Polar Knowledge Canada and Inuit. We have done over 20 projects in relation to climate change adaptation. They have partnered with U.K. academics, Canadian academics and Inuit partners as well.

So there are examples of good work that's happening.

[Translation]

**Mr. Maxime Blanchette-Joncas:** Mr. Obed, you talked about one of your big challenges: having your specific level of government recognized. As you know, the people of Quebec understand the importance of self-determination and nation-to-nation dialogue.

What do you expect from the federal government today?

Truth and reconciliation are mentioned a lot, but there's something no one wants to talk about, the elephant in the room, as they say. I'm talking about the Indian Act, which is the source of all these conflicts.

First, do you think the Indian Act should be abolished? Right now, discussions are focused on amending it.

Second, what do we need to do on a practical level to recognize indigenous communities and nations, so they can have their own form of government and be self-governing?

[English]

Mr. Natan Obed: Inuit don't fall under the Indian Act, and that has allowed for Inuit to chart a very different path with the Government of Canada, in a relationship sense. We have modern treaties, and we have co-management structures that have been created by each one of those treaties, including the two that are in Nunavik: the James Bay and Northern Quebec Agreement and the Nunavik agreement. This is, I think, a more self-determining way of relating between first nations, Inuit and Métis and the Government of Canada than, perhaps, legislation or other structures that were created over 100 years ago.

I think it remains one of our biggest challenges. The complexity of our relationship, which was mostly created by the federal government through legislation, policy and constitutional status, is often too complex for the federal government itself to understand and to apply to its relationship with first nations, Inuit and Métis. We, on the other hand, struggle to understand this complexity fully, especially on the political side, as we make honest attempts to work with you but are confused by the responses that we often get.

• (1135)

The Chair: That's right on time.

We now turn to MP Cannings for six minutes.

Mr. Richard Cannings (South Okanagan—West Kootenay, NDP): Thank you to the witnesses for being here.

Mr. Obed, you talked about how, in Canada, research planning and funding flows largely from the south, within the south. In your research strategy, I think you have five priorities on things that need to be addressed, and the number one issue there is governance. I'm wondering how governance relates to the whole system we have for funding and planning research. You mentioned some collaborations and partnerships with researchers from the U.K. and southern Canada. What's the ITK's vision for governance as it applies to research?

#### Mr. Natan Obed: Thanks for the question.

I think I'll talk about barriers here, and perhaps pass it to Carrie as well.

We work as closely as we can with the tri-council. The tri-council's inability to accept Inuit governance in the way that it creates its strategies and its terms and conditions for its particular programs within the agencies is a huge barrier.

Our institutional eligibility has almost always been denied. We are making strides in that case. I think CIHR is the first that has actually allowed Inuit institutional eligibility when applying for research grants, without the traditional principal investigator academic lens being put on the work. Also, just with the Government of Canada in general and the way in which this country partners with other countries to do research projects in Inuit Nunangat across the Canadian Arctic, we have almost never been involved in any of those deliberations, even though the projects—the funds—are going to end up supporting or flowing through our homelands. It's a completely out-of-date way of doing business.

The research community is often a generation or perhaps even two generations behind the reconciliation efforts of governments, which is surprising considering that academics often feel as though they are enlightened and do things with no sense of prejudice and are completely objective in the way they deliberate.

The same goes for things like order in council processes, which I've touched on before. You'll understand the dilemma of Polar Knowledge Canada putting out a call for members for their board of directors and asking ITK to put names forward. If we democratically put forward Inuit to serve on the Polar Knowledge Canada board, those names would go through the order in council process, and the Government of Canada would decide whether or not those Inuit were fit to serve on the Polar Knowledge Canada board.

The fundamental problem that we still face in this country is that we haven't broken down the colonial structures of exclusion for Inuit to participate in these processes and recognized Inuit governance in the way we all do work together. We have a shared understanding now of wanting to partner and to respect one another, but we still have a long way to go to amend the structures that are in place to allow for that to happen.

It isn't as though Inuit are coming to the table saying that we demand something that is unnatural to governance. We just demand to apply our governance to a multilateral table, at which we've been invited to sit but not invited to share in the decision-making processes.

Carrie, do you want to say something?

Ms. Carrie Grable (Director, Inuit Qaujisarvingat, Inuit Tapiriit Kanatami): Thank you, President Obed.

Thank you for the question.

I would like to say, in addition, that in the last budget there was an announcement of \$10 million over three years for Inuit research governance. This is welcome. I think it's a first step. I think the number of research programs, calls for proposals and initiatives that Inuit governance structures are already involved in is massive. I'm

thinking here of the Inuit Tapiriit Kanatami, ITK, board of directors governance structure. In every subcommittee under that in relation to research and science, we mirror that governance structure. We interact with the research fields of at least 10 different federal departments and agencies. The number of requests for engagement without appropriate remuneration is inequitable from the get-go.

For the next three years, we are looking to develop a governance framework that could assist in future opportunities to work in tandem and in partnership. There are opportunities that come along on which we think we could be doing so much more.

**●** (1140)

The Chair: Thank you. I'm afraid that's our time.

We'll now start our second round, with MP Rempel Garner for five minutes.

Hon. Michelle Rempel Garner (Calgary Nose Hill, CPC): Thank you, Chair.

President Obed, we're at the point in the committee deliberations where we need to be developing recommendations for a report. We've heard from many witnesses with different backgrounds and viewpoints that one of the things that hampers their work and their scope—as broad as that is—is the lack of a coordinating federal research strategy when it comes to Arctic research.

I hear everything you're saying. I understand that if we were to recommend that, there would need to be work with your community to ensure that it functions properly in the context of everything you've said. Is the development of a specific research strategy something you would notionally support, understanding that there would have to be a lot of work done on scope, function, etc.?

I'll start with that.

**Mr. Natan Obed:** In principle, absolutely. It would be great to further clarify Canada's priority areas for Arctic research and also the way in which Canada wishes to conduct Arctic research and the collaboration that's necessary within that.

The Canadian government spends tens of millions of dollars on Arctic research every year, but often it is hard to understand the broader purpose and the reason why certain monies are spent on, say, POLAR and 50 bureaucrats in Ottawa, plus however many in Cambridge Bay, and for what purpose. It would be great to have a strategy that ties that all together.

**Hon. Michelle Rempel Garner:** As to how that would function, taking some of the comments you've made already, obviously there would need to be a formal collaboration with your people in setting priorities. Is that something you would recommend?

Mr. Natan Obed: Absolutely. However you define "Arctic"—you can be more inclusive or less inclusive—for us our homelands are about 40% of Canada's landmass, about 4 million square kilometres. We are the dominant public policy interest when it comes to the creation of a strategy. Leave the politics out of it. If you just look at the space and who lives there, we are the dominant player. We do hope that in the creation of something like this there would be a partnership approach with Inuit in it.

#### Hon. Michelle Rempel Garner: Thank you.

Some of the other testimony that struck me—which I think you've sort of slightly touched on this in your comments today—that the government's strategy on funding "Arctic research" has been focused on important research like climate change, but there's a much broader scope of research that funding should be directed to: economic development, governance, food security, mental health strategy, infrastructure or whatever. There's such a broad breadth.

Would you recommend—again, in the context of formal collaboration in the truest sense of the word—that the priorities for an Arctic research strategy be broadened to encapsulate the larger set of needs of Arctic peoples?

• (1145)

#### Mr. Natan Obed: Yes, absolutely.

If we think of our climate change strategy, it is unnatural for, say, somebody reading it at a climate change conference, because it isn't focused exclusively on the environment. It's actually the inverse. It's more focused on the ability of our communities to be sustainable within a changing Arctic. That means research in relation to infrastructure and how to build more resilient infrastructure. How do we mitigate against the worst impacts of climate change? How do we understand extreme weather events more completely to ensure that we can be more resilient?

Just to give an example, our understanding of weather shifts over time and is a huge indicator for us of whether to go somewhere or not to go somewhere on any given day. Then, once we are in a scenario where we are in a storm, it's how we act and how we react to it. If we can understand more about our changing Arctic and the climate within it, then we can stay safer on the land.

I want to give an example of SmartICE, which is a partnership between—

**The Chair:** Do so very quickly. We're having other witnesses come in and we're over time.

**Mr. Natan Obed:** It's just a partnership between Inuit and researchers to ensure that we have real-time data on sea ice so that people can be safer when they travel.

The Chair: Thank you very much.

Now, for five minutes, we'll turn to MP Diab.

Ms. Lena Metlege Diab (Halifax West, Lib.): Thank you, Madam Chair.

Welcome back to our committee, President Obed and Director Grable.

You were asked a question and were commenting on research. I don't think you had an opportunity to finish. If you did, I have a bit of a supplementary question on research.

President, you just spoke about research in relation to infrastructure and how to understand it better in relation to events. Do you have some more comments? I think you were trying to talk about SmartICE and the lack of consultation, or good consultation, with communities where research is taking place. How would you recommend researchers design better research to focus more on local priorities and do research with the local community? How would you classify a good partnership approach?

**Mr. Natan Obed:** There are such wide, diverse topics of research. I'll give you the example of tuberculosis and tuberculosis elimination.

From the public health side, we're still trying to understand how to talk about tuberculosis and how to identify active tuberculosis among our populations. We've done research projects. I was a part of one in Nunavut called Taima TB, where we paired public health nurses with Nunavut TB champions and went door to door in communities based on demographic information we had. They talked to people about tuberculosis and asked them if they wanted to get tested. It was done in Inuktitut and with a community sense.

That was highly effective. It was upstream public health work. The research portion of that allowed us to understand how effective it was. If we were going to spend money on TB elimination, would this be one of the ways to apply a community-based public health approach to lowering the rate over time? There's invaluable information that we gained from that. If we had just said, "Let's hire public health nurses from the south to come up and do this door to door", we wouldn't have had the same result.

The willingness of a principal investigator to partner with Inuit—in this case, the organization I worked for at the time was Nunavut Tunngavik—and their ability to work with us on every single aspect of the project, including doing a community feast and returning results to the community in a specific way, can create a positive interaction between the community and the research project.

We have to recognize that we've had very negative interactions with research over time. Part of the construction of each one of our partnership approaches to research is destigmatizing research, being careful in the way we conduct it, having a community- and an individual-focused approach, and returning results so somebody who participated doesn't read about something that impacts them in a Globe and Mail article or hear about it at a research conference in the south.

• (1150)

**Ms.** Lena Metlege Diab: Is that what contributes to what you described as being a negative with research?

**Mr. Natan Obed:** Yes. We are one of the most researched peoples in the world. Often, it has been a very one-sided relationship. Also, some of the research aspects had human rights abuses, such as grafting the skin of one person onto another to see how it's affected. There are many different examples of horrific—we would say in 2024—research that was applied to Inuit over the last 75 to 80 years.

We have memories of research happening for purposes that had nothing to do with us. It had more to do with the intellectual curiosity of certain southern researchers. That's what we're trying to push back on

Ms. Lena Metlege Diab: Thank you very much.

The Chair: That's our time. Thank you.

We will turn to MP Blanchette-Joncas for two and a half minutes.

[Translation]

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

Mr. Obed, in 2019, you released a report containing a number of recommendations for the federal government. Under that year's budget, you received a million dollars in federal funding to support those efforts.

Where do things stand in relation to those recommendations? Has there been any improvement?

Did the government give your recommendations any consideration?

[English]

Mr. Natan Obed: Yes. Our 2019 national Inuit climate change strategy is still a work-in-progress. We released it in Inuvik. The federal government did indeed provide funding on day one for the implementation of the strategy, but I mean, a million dollars for climate change—it's more for the work that we can do in our regions to mobilize for climate change rather than to actually do the adaptation and mitigation work itself.

Our priority areas, such as advancing Inuit capacity and knowledge for climate decision-making, that we are standing on with the knowledge that we provide to you from the work that we've been able to do over the last four to five years with government funding, are to mobilize together and to create more specifically our climate priorities. We also have linked to some of the work we've done in our communities on housing or on other infrastructure projects in ensuring there's climate resilience within the work we do and research that focuses on ensuring that we are building the best possible structures. With food security and with poverty reduction, we've been able to work on those areas as well.

The work is ongoing, but we are grateful for the funds we have received.

[Translation]

**Mr. Maxime Blanchette-Joncas:** Mr. Obed, one of the recommendations in your 2019 report focused on the infrastructure deficit identified in northern communities.

At this point, do you think the federal government has done enough to address the deficit and turn the situation around?

**(1155)** 

[English]

The Chair: Give a short answer, please.

Mr. Natan Obed: There have been a number of bold proclamations—getting our communities off diesel by 2030, and ending deficits in indigenous infrastructure also by 2030—and we've worked through the Inuit-Crown partnership committee to identify \$75 billion in infrastructure projects that would help alleviate this deficit. We've received most recently approximately \$450 million for infrastructure. I would say there's a big gap there.

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

Thank you, President Obed and Director Grable, for-

A voice: Mr. Cannings was next.

The Chair: Oh, I'm sorry.

Mr. Cannings, you have two and a half minutes. I'm sorry.

Mr. Richard Cannings: Thank you.

Mr. Obed, I wanted to bring up the subject of traditional knowledge, the Inuit way of knowing. Is one of the barriers you're facing having southern research funders or people who are setting priorities actually using traditional knowledge along with science, or western science, whatever you want to call it, or, on its own, are you facing that barrier in Inuit research priorities?

**Mr. Natan Obed:** Yes. I think that's an ongoing issue. It's been individualized. A lot of professors or a lot of researchers will kind of define for themselves what incorporation of traditional knowledge means and the place Inuit knowledge has within existing research. Often in the academic community there'll be a split between those who say they're scientists and those who are researchers. I think people who say they're doing work purely for science often don't see Inuit knowledge as being part of that statement.

I think it is a generational thing. I think it'll be really difficult for us for a long time for our knowledge to be fully respected. That's one of the reasons we're creating an Inuit Nunangat university. In the next five years, hopefully, we'll be able to open the doors. The more we can have a footprint within especially the post-secondary and academic world, and have researchers coming out of that system as well, we will gain a greater foothold in the ability to be peers in the academic and research communities moving forward.

**Mr. Richard Cannings:** I have another quick, big question. It's about data, namely, access to data and control over data. Is that an ongoing issue within research?

**Mr. Natan Obed:** Absolutely. We have a lot of data messes that we still have to clean up, where, historically, some of the terms and conditions that were on research projects involving Inuit didn't have time limits on the ability to house data in southern institutions.

Then one of our biggest challenges within partnerships with universities is data and the inability for universities to have separate consideration for self-determining first nations, Inuit and Métis, when they have a particular definition of what's permissible for research partnerships, and the terms and conditions for everyone else.

The Chair: Thank you.

That's a little bit extra, but anyway. We were trying to decide what we're doing next. We've decided to do another two and a half minutes for the Conservatives and Liberals, and then that will be it for this panel. Okay?

Mr. Tochor, you can go ahead for two and a half minutes, please.

Mr. Corey Tochor (Saskatoon—University, CPC): Yes, I just have a general question about success stories. We've done a fair bit of research in the north. What are any adaptation or mitigation strategies that have come out of actual research done in the north that are held up as examples of what we should be championing in our research?

Mr. Natan Obed: There are a number of different successful research projects. Again, in the social field, I would say there are a number of different public health research projects—on suicide prevention, mental health, and food security—that have really given us a great insight into how either to better adapt public policy or to apply new best practices to systemic problems in the Arctic.

As far as the environment and physical research are concerned, there are ways in which we can understand a changing Arctic better, and I think SmartICE is a great example of that, where it just gives people more information to navigate in a more difficult, changing Arctic.

I think some of the work we've done—which I'll have to get back to you about—on infrastructure would also be held up as an example.

**●** (1200)

Mr. Corey Tochor: Thank you again for appearing today.

The Chair: Thank you.

Now we'll turn to MP Longfield for two and a half minutes.

Mr. Lloyd Longfield (Guelph, Lib.): Thank you, Chair. I'm really pleased to have a few minutes to ask questions of President Obed.

It's so good to have you back at the committee. Per Dr. Jaczek's experience, you spoke to us at the agriculture committee several years ago and your comments are still resonating with me. Thank you for taking the time to be with us.

You mentioned governance. That was something I've been struggling with in how we manage the governance of research projects. The governance that we are applying, as you said, is Ottawa up. It's south-north versus north-north, and then we participate. Is there a model of governance between communities in the north or within communities of the north that we should be paying attention to and

maybe working within that framework of governance versus a framework that we're bringing from the south?

**Mr. Natan Obed:** I spoke a little bit earlier about the complexity and the way that we are all carved up in our geopolitical space now as Inuit, which has created four separate research approaches—and all within, I would say, from an Inuit lens of a very similar look and feel, but very particular to the jurisdiction in which Inuit reside.

There are best practices that we can use, but each one of our governance models lives mostly with provinces and territories as their partners, and research structures within those jurisdictions, rather than research partnerships across Inuit Nunangat from north to porth

We do come together through ITK and have our research management, an Inuit Qaujisarvingat National Committee. That's the committee that guides Carrie and her work, and then guides our board of directors on the decisions they make on the research space, but that is, I would say, an Inuit democratic function at the senior technical level, which is, I think, a best practice but one that has limited application to your question.

**Mr. Lloyd Longfield:** Can you share that back with us, as part of our recommendations to look at ITK and the role it could play in helping us with the governance of research? I think that would be very helpful for our study.

Mr. Natan Obed: Okay.

The Chair: Thank you. That was important to bring out.

Thank you, President Obed and Director Grable, for joining us today. We really appreciate your testimony.

We're going to now suspend while we get ready for our next panel.

• (1200) (Pause)

(1205)

The Chair: Welcome back, everyone.

I'd like to make a few comments for the benefit of our new witnesses.

Please wait until I recognize you by name before speaking. For those participating by video conference, click on the microphone icon to activate your mic and please mute yourself when you are not speaking.

For interpretation for those on Zoom, you have a choice at the bottom of your screen of floor, English or French. For those in the room, you can use the earpiece and select the desired channel.

It's now my pleasure to welcome from Aurora College, Pippa Seccombe-Hett, vice-president of research, who's here by video conference. From SmartICE, we have Dr. Katherine Wilson, director of knowledge co-production.

Up to five minutes will be given for opening remarks, after which we will proceed with rounds of questions.

Ms. Seccombe-Hett, I invite you to make an opening statement of up to five minutes.

#### • (1210)

# Ms. Pippa Seccombe-Hett (Vice-President, Research, Aurora College): Thank you, Madam Chair.

I appreciate the opportunity to speak with the committee today and present some perspectives from a northern educational institution. I work for Aurora College, the public community college of the Northwest Territories, and we thank you for including our perspectives in these discussions.

As you have been hearing through these sessions, the north has always generated a tremendous amount of research interest, and it continues to attract increasing research attention, particularly with the significant changes resulting from climate change and the disproportionately high impacts on northern and Arctic ecosystems and people. However, historically, northern residents have not been resourced to lead the science and research in the region, with the majority of this work in the Northwest Territories being led by researchers located outside of the region, typically positioned in federal government departments and universities across southern Canada. National research funds for science and infrastructure are mainly accessible to university researchers and federal government scientists. Without a university in the Northwest Territories to anchor these funds, northern communities and organizations have been largely excluded, creating a sense of inequity.

When I first began working in the Northwest Territories 25 years ago, much time was spent advocating for northern research priorities since funds were inaccessible to residents of the territory and this prevented the region from establishing and maintaining research capacity in the north.

Although much Northwest Territories research has made significant contributions to science and is valuable nationally, regionally and internationally, there remains a disconnect between the large-scale Arctic science and regional research concerns and priorities. Times have certainly changed while I've been working in the NWT, and there are many new national and regional initiatives to empower and strengthen both indigenous and northern research leadership and capacity building. However, this gap in research leadership and access to resources persists in the Northwest Territories.

As the public college of the Northwest Territories, Aurora College has research staff on all of its campuses, and it maintained minimal in-house research capacity until the last decade, when the institution became eligible to access tri-agency funds. Since then, the research capacity has really started to grow and realize the opportunity to develop applied, community-partnered research programs that benefit northern communities and focus on Northwest Territories questions.

We have also been able to anchor access to research funds for our indigenous and regional partners and to increase collaborative engagements with universities, allowing the region to access new funds, mentorships and partnerships. Aurora College is currently transforming into a polytechnic university, and part of this vision is to expand on this applied-research focus. Access to the national research funds has positioned the college in a meaningful role for the region and has opened new funding opportunities to support and expand northern research and research leadership.

From an infrastructure perspective, Aurora College operates the Western Arctic Research Centre, which is a purpose-built research centre in Inuvik, Northwest Territories. This facility is the logistics hub for research across the western Arctic. It serves the community, the college and the external research community, which includes over 300 regional, national and international researchers annually.

However, there is no other research infrastructure like this at the college or in the territory, and there's a desperate need for a similar shared research infrastructure to support research activities across the southern and central Northwest Territories, most notably at the Yellowknife campus. The absence of infrastructure of this type presents a barrier to research programs and research partnership development for the college and the northern research community beyond the college.

In terms of collaboration, the Northwest Territories does have a research licensing process to review, track and monitor regional research activity. This process is intended to mitigate the risk of harm from research and to promote best practices and communication between researchers and northern residents. Unfortunately, the act is antiquated and insufficient to ensure that researchers engage with northern and indigenous residents to develop meaningful collaborations and research relationships.

More robust mechanisms are required to ensure that northern people are appropriately engaged in ways that lead to meaningful research collaborations, that generate community benefits, that appropriately share knowledge, that respect indigenous self-determination in research and that build northern research capacity.

In saying that, we are seeing increasing examples of opportunities to empower northern research leadership through northern reviews of research, engagement of advisory boards, meaningful investment in capacity development and strong, demonstrated research collaborations. Still, there remains significant room for improvement to grow northern research capacity meaningfully.

I thank you for allowing me to speak with you today, and I welcome all questions to help support the work of the standing committee.

Thank you.

#### • (1215)

The Chair: Thank you, and we look forward to your testimony.

Now we will turn to Katherine Wilson, a director at SmartICE.

I understand that you will also be reading, perhaps, a message from Andrew Arreak, whose headset did not come through for us.

# Dr. Katherine Wilson (Director of Knowledge Co-Production, SmartICE): Thank you, Madam Chair.

Mr. Arreak sent a message to say he's sorry he couldn't present today, but he's given me his blessing to read his testimony on his behalf, as follows.

Qujannamiik. Thank you for inviting me and asking me to speak with you today. My name is Andrew Arreak and I live in Pond Inlet. I am the Nunavut SmartICE operations lead for the Qikiqtaaluk north region.

Climate change is affecting our ice conditions across the north. The ice is not only melting from the top from the heat of the sun, but from the bottom due to warm ocean currents. This is making some ice conditions unpredictable to travel on.

The ice is vital for northern people. We travel on it to go to our hunting grounds and camping sites, and even to travel to see family and other communities. It's part of our identity and it is who we are.

SmartICE is an indigenous-led social enterprise that supports communities in monitoring their own ice conditions and share this information with their community. SmartICE provides training, employment and ice safety information so that we can adapt to changing ice conditions and continue our way of life. We use the latest technology to monitor the ice thickness on the ice from above, using satellites, and utilizing our Inuit knowledge.

I'll be talking to you today about Arctic science and research from a community level, and I'd like to emphasize four important points.

The first is the need for Inuit in leadership positions. The second is the need for co-developed training. The third is the need for community-specific research spaces. The fourth is the need for ongoing funding.

I'll expand on each of these.

Each SmartICE community has a local committee, which decides where and when SmartICE operates.

My committee in Pond Inlet is called Sikumiut. The members are local people who grew up, live and travel on the ice. Some people may think I'm the only one making the decisions, but in fact, I'm following what Sikumiut decides. It's important to have local leadership, because their Inuit knowledge guides me in the different areas I should monitor by season. They also guide me in what information is most important to share and how to communicate using our local dialect and knowledge.

SmartICE provides various types of training programs. I was part of several teams that co-developed the training, because I know how Inuit like to learn.

All of our training is hands-on. It's done in communities, so we don't need to leave our families. We don't need to go south to get a western degree to do research. We also have programs so Inuit can become the next generation of instructors. I am now an instructor, which allows me to deliver this training in English or in my language of Inuktitut.

My second point is that training in communities needs to be codeveloped. By working together, we can develop training that not only works for us, but also provides the jobs, skills and information that are needed in our communities. We have shown that the capacity and interest exist, and that we can do a lot of the research ourselves in our own communities.

Thirdly, we need community-specific research spaces. In my community of Pond Inlet, there is one research station and another one being built. None of these were built to meet community research needs. They meet the needs of seasonal researchers from the south, who only come up for two or three months in the summer, but I work and live in the community all year round. I was lucky to get an office in town, but I still lack the space to store and fix my equipment. Most of my Inuit colleagues don't have offices, and must work from home in crowded conditions, which is not a place where people can be very productive.

I've been with SmartICE since it started in 2015, and today, we operate in 36 communities across the Canadian north. SmartICE is still growing because we're providing services to northern communities that are not being provided by governments or universities.

Communities do not pay for our services. SmartICE submits proposals to various agencies and organizations to get funding. This takes up a lot of time, with no guarantees that we can keep operating each year. Therefore, my fourth point is to emphasize the need for northern organizations like SmartICE to have ongoing funding so that we can keep providing these important services to our communities.

In conclusion, northerners are very capable of doing science and research when we are given a chance, are part of the leadership and the training, and have the proper space and funding.

#### • (1220)

When you truly partner with communities in terms of science and research, you will get the community's support and all parties involved will benefit from the work.

Qujannamiik.

The Chair: Thank you so much, Dr. Wilson, and also to Andrew, in absentia.

We'll open the floor for questions. Be sure to indicate to whom your questions are directed.

We'll kick off our first round with MP Tochor for six minutes.

Mr. Corey Tochor: Thank you so much, Chair.

Thank you to our witnesses.

I'm going to start with SmartICE.

Ms. Wilson, the instruments that you guys use are very in intriguing.

I want to clarify, how does one connect to the Internet in the north right now, with all these sensors?

**Dr. Katherine Wilson:** When the sensors are out on the ice, as soon as they come into town, they are Bluetoothed to the local Internet. The information is then immediately available at our head office, so it can then be presented up on a website.

Mr. Corey Tochor: It's a city or town that does have Internet—

**Dr. Katherine Wilson:** It's once you're into the cell network in a community.

**Mr. Corey Tochor:** Of the components that go into the sensors, how many are.... Is the hardware mostly from China, I suspect?

**Dr. Katherine Wilson:** I don't know. I'd have to get back to you on that. However, our smart buoys are manufactured in Nain, Nunatsiavut, by youth at risk.

**Mr. Corey Tochor:** Fabulous. I encourage you to continue your good work in this regard.

I'm switching over to Aurora College.

It's a fabulous institution up in the north. Going through the website a little bit, there are a fair number of scholarships and bursaries. That's fabulous. Some of the programs you offer are surface mining, underground mining and mineral processing operator.

Could you tell us more about the importance of resources in the Arctic and ways that your college is contributing to the resource sector?

Ms. Pippa Seccombe-Hett: Thank you for the question.

Our college has a large focus on vocational training or training required by industry. There is a long history where the college has worked with the mines within the territory through the Mine Training Society and other such organizations to train Northwest Territories residents to prepare for careers in emerging economic opportunities.

**Mr. Corey Tochor:** Since 2015, the regulatory changes that the Liberals enacted have really stopped exploration and new mines coming online.

What is your plan? We do know that there are no mines scheduled to open in the next decade and a lot of resource-based workers are up there.

What happens to these courses when those jobs aren't there?

**Ms. Pippa Seccombe-Hett:** Currently there is a large focus on training for reclamation. There are a significant number of oil and gas sites, as well as mining sites, that require reclamation. There are

some significant opportunities to train northerners to take careers that take advantage of these work opportunities as they present themselves.

**Mr.** Corey Tochor: Once a mine goes through that process, though, that work ends. Is that correct?

Once that current mine—if we're talking about Northwest Territories, I believe it's diamonds—gets reclaimed, there's nothing on the horizon after for a new mine, I guess I'm saying.

**Ms. Pippa Seccombe-Hett:** I do not know the answer to that, but I do know that there's significant monitoring of reclamation. Some of those employment opportunities take many years, depending on the nature of the mine that's being reclaimed.

(1225)

**Mr. Corey Tochor:** During your presentation, you mentioned a few times about the community benefit.

Now looking back—we're a few months out of 2023—what were the success stories at the college? What are different examples where research has helped the community benefit, that you mentioned?

**Ms. Pippa Seccombe-Hett:** One example I can think of is work that has been conducted looking at alternative energy resources and the establishment of a wind turbine in Inuvik, after years of monitoring wind resources, that's available for the community. Supporting community adaptation of energy sources is one example.

Mr. Corey Tochor: You brought up energy sources.

Have you done any work around the benefits of nuclear energy, hopefully in the north?

**Ms. Pippa Seccombe-Hett:** Our college has not engaged in any of that work.

**Mr. Corey Tochor:** Just as a last question on the research, we heard that different foreign states have been barred or have attempted to do some research in the north. In the past, has your college ever worked with the PRC or the government in Beijing?

Ms. Pippa Seccombe-Hett: No, not that I am aware of.

**Mr. Corey Tochor:** Of the researchers from different countries who do research out of the college, what countries are they from, mostly, if they are foreign?

**Ms. Pippa Seccombe-Hett:** The researchers using our facility in Inuvik are largely European researchers. We're seeing a fair number of researchers who are funded through the European climate research funding. Germany and Britain are the two main countries, although we're seeing a diversity of Europeans.

**Mr. Corey Tochor:** It's a bit timely here. In the past organizations from Russia were welcomed, but right now is that a no go?

**Ms. Pippa Seccombe-Hett:** I don't think I have, in the 20 years with the college, seen Russians working out of the research facility in Inuvik.

The Chair: Thank you.

We now turn to MP Chen for six minutes, please.

Mr. Shaun Chen (Scarborough North, Lib.): Thank you, Madam Chair.

Thank you to the witnesses for appearing today.

My question is for Aurora College. I'm very pleased to hear about your increasing research capacity in the north. You mentioned in your testimony that access to tri-council funding enabled your college to develop further mentorship opportunities and partnerships. Can you share with our committee some examples of the initiatives that came out with this increased funding?

**Ms. Pippa Seccombe-Hett:** As I reflect over the last 10 years of our ability to access this funding, some of the partnerships we engaged in were related to permafrost and permafrost impacts on infrastructure in the territory. That was one of our first tri-agency grants. We were also able to establish a technology access centre supporting arts and technology acquisition, largely in the Beaufort delta region in the northern end of the territory.

We also accessed funds to support remote sensing of methane, in collaboration with university and community partners. It allowed us to more easily participate in research networks such as ArcticNet, and to access tri-agency funds as well as the Canada Mountain Network, so there's a range of different things. We also accessed connection grants to support knowledge sharing, which allowed us to create capacity development opportunities that we share with communities, launch a northern journal—a range of different types of research, going from health, to social to physical research.

Mr. Shaun Chen: That sounds wonderful.

You mentioned in your testimony that respecting indigenous self-determination is important in the research that is done in the north. In what ways can this be accomplished?

**(1230)** 

Ms. Pippa Seccombe-Hett: We really look to our indigenous partners to guide that, and it differs from each of the communities and indigenous regions that we work in. Certainly some of our partner organizations have research agreements, data handling, different types of knowledge return, co-development.... There's a whole range of differences, but they depend...community to community: Certainly the Inuvialuits have one set of requirements, the Gwich'in another. We work with our community partners—really, led by the indigenous organizations themselves—to tell us how we should be directing and focusing our research efforts to support their ability and governance.

Mr. Shaun Chen: One challenge I have heard repeatedly in our committee study, from various witnesses, is that logistics are challenging. For researchers who hope to be on the ground, carrying out their studies, it is incredibly challenging. You discussed how a logistics hub, including over 300 researchers, really enabled the work you do to move forward, and you did mention a desperate need for a similar shared research centre. Can you expand on what that would look like and how you envision this being supported and funded through government?

Ms. Pippa Seccombe-Hett: Thank you for your question.

The Western Arctic Research Centre in Inuvik did replace aging infrastructure that was created by the federal government. It was funded by the Arctic research infrastructure fund in 2009 and

opened in 2011. The application for this funding was co-developed with our regional partners—so our regional government as well as the Gwich'in Tribal Council and Inuvialuit Regional Corporation.

We looked together at what the benefits were from having the research centre there for 45 years and we built a vision of what it could support in the future. It's very much a shared facility where we can conduct STEM outreach activities with youth and students in the community, support the transient researchers that come through and also support college students and our in-house researchers. So it's very much a shared facility. We have multiple staff that book and manage the facility so that it is accessible to all, including community, regional, national and international groups.

It has purpose-built labs. It has workshops. It has storage so that we can offset a lot of the costs for researchers from the south coming up to work in that region. Whether it's freight handling, lab services, water, meeting spaces or whatever it may be, something along a similar line or perhaps larger would be required in the southern NWT or in south-central Northwest Territories because there's no infrastructure at all of that type.

But I think the common element is that with community that includes educational opportunities as well as the external research community so that it's shared infrastructure.

The Chair: Thank you. That's the time.

Mr. Shaun Chen: Okay. Thank you.

The Chair: Next we have Mr. Blanchette-Joncas for six minutes.

Go ahead, please.

[Translation]

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

Welcome to our witnesses for the second hour of today's meeting.

Ms. Wilson, I see from your title that you are the director of knowledge co-production.

I have a simple, but still complex, question. In concrete terms, how do you co-produce knowledge?

[English]

Dr. Katherine Wilson: It starts with working with the community. When we start any operations in a community, either we look for an existing committee that would be our decision-makers or we establish a new one. That's where the co-production comes from. They tell us how we will operate and where we will operate. They give recommendations with respect to who we should hire. They also decide on what other research they're interested in doing. So it starts right at the very beginning by having Inuit leadership and working together.

[Translation]

#### Mr. Maxime Blanchette-Joncas: I see.

Have you encountered situations where indigenous knowledge and science conflicted? In other words, indigenous people and scientists didn't see things the same way.

(1235)

[English]

**Dr. Katherine Wilson:** There have been examples of this. I was not involved in them, but there were with polar bear research. However, in my experience, if you're working together and discussing the questions that you want to research together, you also decide on how you're going to do that research together, so you're not splitting or coming into the question from two different viewpoints.

[Translation]

**Mr. Maxime Blanchette-Joncas:** When those two knowledge systems conflict, what process do you follow, as director of knowledge co-production, to determine which information is good and which isn't so good? How do you figure out what's true and what isn't, or which knowledge takes precedence?

[English]

**Dr. Katherine Wilson:** I've never had that experience, so I can't give you the example that you're looking for. My colleagues in northern communities are extremely experienced scientists in their own right, and they live there, and they are on the land all the time, so I defer to their knowledge.

[Translation]

**Mr. Maxime Blanchette-Joncas:** Have you heard of situations where this has happened in the past? Are they pretty rare or uncommon?

[English]

**Dr. Katherine Wilson:** I think the challenge is that researchers can go into communities and do workshops and take notes about what people are saying, and then they take that south and interpret it themselves and that knowledge can be interpreted wrongly. So if you are working with knowledge holders, you have to work together. You have to review and verify all of the research results together so everyone is in agreement.

[Translation]

**Mr. Maxime Blanchette-Joncas:** Ms. Wilson, can you tell me from your experience how you go about interpreting indigenous knowledge versus knowledge based on what is described as western science?

What's the difference?

[English]

**Dr. Katherine Wilson:** I think the difference is the approach. I don't know how to answer that one, because it comes from two different world views. That's where it comes back to co-production and working together. It's not one or the other if we're going to answer some of these big questions. It has to be working together to come up with something that meets everyone's needs.

[Translation]

**Mr. Maxime Blanchette-Joncas:** That creates a bit of confusion, Ms. Wilson. We are lawmakers, and normally we base our decisions on methods or processes. We have to make the best possible decisions based on the best possible information. You say that there are two world views, which don't always align.

How do we, in 2024, figure out which view to base our decisions on when the two views conflict?

[English]

**Dr. Katherine Wilson:** I'll go back and say that it's very rare that these two knowledge systems are in conflict and not in agreement, especially if people are working together from the beginning.

[Translation]

**Mr. Maxime Blanchette-Joncas:** You don't have a tangible solution to recommend to us, as lawmakers, so we know how best to apply co-produced knowledge.

Is that correct?

[English]

**Dr. Katherine Wilson:** I feel like I'm repeating myself.

[Translation]

Mr. Maxime Blanchette-Joncas: All right.

[English]

**Dr. Katherine Wilson:** It would be the same answer that I gave previously.

[Translation]

Mr. Maxime Blanchette-Joncas: I understand.

[English]

**Dr. Katherine Wilson:** It's all about working together.

[Translation]

**Mr. Maxime Blanchette-Joncas:** I gather you feel as though you're repeating yourself. I was trying to get an answer. It's still a bit vague. You said there wasn't really an answer to my question. I'm going to switch topics, and try a different tack to get the answer I'm looking for.

Let's talk about climate change. Clearly, global warming is impacting Arctic communities, especially their ability to travel on ice, which is very—

[English]

**The Chair:** This will have to be a short answer or be given in the next round. We're over time.

**(1240)** 

[Translation]

**Mr. Maxime Blanchette-Joncas:** Witnesses told the committee that we weren't really developing the tools to counter or avoid the effects of global warming.

What do you think?

[English]

**Dr. Katherine Wilson:** The challenge is in supporting northern communities so that they can continue to use the ice. Access to the ice increases health and wellness and enhances food security. Being able to travel on the ice, and getting that information to go on the ice, isn't being met by governments or universities. Right now, SmartICE is filling that gap.

The Chair: Thank you.

We'll now turn to MP Cannings for six minutes.

**Mr. Richard Cannings:** Thank you to both witnesses for being here.

Dr. Wilson, you talked about co-developed training. We heard in the previous panel from Natan Obed from the Inuit Tapiriit Kanatami. One of their research priorities is building capacity in Nunangat. Could you perhaps expand on the role that SmartICE might play in that? Does the training you provide or facilitate enhance broader capacity among communities to do research?

**Dr. Katherine Wilson:** Absolutely. Many are familiar with the monitoring technology on the ice, but in the group that I work with, I'm training youth how to use geographic information systems and how to interpret satellite imagery, which are skills that you get at a college or university degree level.

The way we approach research in the north is that we're training Inuit so they can do the research themselves for Inuit self-determination and research. When we think about science and research, we also have to think about this young generation, this booming population, that will need employment. Being able to provide the training in the communities, without their having to come south, means they can stay with their families.

#### Mr. Richard Cannings: Thank you.

We've been hearing from various witnesses in this study, and we heard it in your opening statement, about the need for community space for research. There are scattered research centres across the Arctic, but so many communities lack community space to do this work, to house projects like SmartICE. If you were setting priorities across the Arctic, would that be one of your priorities, to have space available to each community to do this kind of work?

**Dr. Katherine Wilson:** Absolutely. You've heard in other testimony about the crowded housing conditions. It's very difficult for people to work from home, from kitchen tables, when the house is full. Even when we get proposals and we put in required funding so that we can rent space and we go to communities and say that we're happy to rent an office for our staff, we can't find an office to rent.

**Mr. Richard Cannings:** I'll turn to Ms. Seccombe-Hett with that same question about infrastructure. Again, we've heard, as I just mentioned, about this need for infrastructure across the north. Perhaps you could comment on that and what role Aurora might play.

Ms. Pippa Seccombe-Hett: Certainly, it's well known that infrastructure is limited in the north. I did highlight some of our deficiencies in college infrastructure, but I also think there is some opportunity with that infrastructure given that we currently have 21 community learning centres that we try to use for college programming and upgrading and for courses within the community, but we're also making these available to support alternative options within the communities, whether it be for supporting research or training opportunities. However, it is a challenge for all of us.

**•** (1245)

Mr. Richard Cannings: Thank you.

The Chair: You have almost two minutes.

**Mr. Richard Cannings:** Oh, my goodness. It seemed like the time was flying by there.

I'll stay with Ms. Seccombe-Hett. You talked about research licensing, and I've seen that in some of the other documents with regard to this study. What is research licensing? What goes into it? Is it looking at ethical issues? Is it looking at consent issues or community involvement, at how the research is governed and structured?

Ms. Pippa Seccombe-Hett: The research licensing process in the Northwest Territories—I believe they're different in each of the territories—requires an application that outlines the research proposal, where the work will be done, the settlement regions that it will be conducted in, and it asks a whole series of questions around community engagement and data handling. Any social or health research is required to provide ethical reviews, so they must be approved by an ethics review board.

There are a certain number of requirements. These change depending on the settlement region as well. The different indigenous governments have different requirements for the researchers, but there is a requirement for community engagement and communication around the research.

That's more or less an overview of the process, but typically it takes two to three months to obtain a research licence in advance of conducting any research in that region.

**Mr. Richard Cannings:** Are the ethics review boards that you're talking about attached to the universities that may or may not be in the north?

**Ms. Pippa Seccombe-Hett:** Largely, the researchers attached to southern universities use those research ethics boards, but northern organizations or indigenous organizations that do not have their own ethics committees available to them rely on the Aurora College research ethics committee to help support that as a stopgap measure.

There are instances of collaborative reviews with—

The Chair: Thank you so much. That's over time now.

Now we will turn to our second round of questioners. We'll start with MP Rempel Garner for five minutes, please.

#### Hon. Michelle Rempel Garner: Thank you, Chair.

Again, we're at the point in the study where we're trying to come up with some recommendations for the government with regard to Arctic research. We've heard from many different witnesses about the challenges encountered due to the lack of coordination and essentially the lack of focused research priorities of the federal government for the Arctic.

Do you believe that the committee should be recommending to the government the development of some sort of coordinated and specific Arctic research strategy, which could both help facilitate coordination among disparate players with an interest in Arctic research, as well as help focus the government's funding on core priority areas?

I'll start with Ms. Wilson, but then throw it over to Aurora College.

**Dr. Katherine Wilson:** I do think there needs to be some level of coordination happening. It's a challenge, as you know, because our north is so diverse and distinct. Sometimes, with one overarching strategy, we wonder whom that really serves. Often, communities don't see themselves in these strategies. Perhaps, it's about breaking up this strategy, making it regional and starting from the bottom up instead of a top-down approach.

Hon. Michelle Rempel Garner: Now to Aurora College.

#### Ms. Pippa Seccombe-Hett: Thank you.

I do think a strategy would bring benefits to the north. I think it might be the right approach, but perhaps Katherine's suggestion of starting from the bottom up.... I like that suggestion. It certainly needs to include the indigenous governments, the federal government and a lot of the applied and local players. I think it needs the northern educational institutions, certainly, but the local community governments are important in that as well.

#### • (1250)

Hon. Michelle Rempel Garner: We have also heard that there is perhaps a lack of focus or availability of funding for a broader range of research priorities that would have an Arctic focus, for example, Arctic infrastructure needs that are specific to the Arctic, economic development, natural resource planning or potential postures for Canada on geopolitical issues. Would you say that this assertion is accurate and could be perhaps bolstered or remediated via a formal Arctic research strategy?

I'll send that to Aurora College.

Ms. Pippa Seccombe-Hett: I do think it has the potential to address multiple issues. I think maintaining both, you know, the big picture climate science and the local applied piece within that picture.... I do think so.

Hon. Michelle Rempel Garner: Perhaps I'll direct this to Dr.

Do you think there are opportunities as well to have a research strategy aligned with commercial interests, for example, actually building receptor capacity for technological innovations in Canada's Arctic, with, of course, cultural sensitivity to indigenous persons? It struck me that there's a lack of that sort of capacity in Canada right now.

**Dr. Katherine Wilson:** I can't comment on the example that you gave, but we're looking at moving our facilities for manufacturing into the Arctic so that they're made in the Arctic by northerners. It just creates that employment and opportunities going forward.

**Hon. Michelle Rempel Garner:** Could that be an objective of an Arctic research strategy, to build more, essentially, receptor capacity for technological development based on Canadian research?

**Dr. Katherine Wilson:** I think, again, it's a question of who's making the decisions around this. If it's something that the regional government and community wants, then that would make sense.

#### Hon. Michelle Rempel Garner: Thank you.

**The Chair:** We will now turn to to MP Kelloway for five minutes, please.

Mr. Mike Kelloway (Cape Breton—Canso, Lib.): Thanks, Madam Chair.

This is another really interesting session. We're absolutely learning more about the north, and the strengths and also the areas of opportunity and some of the deficiencies.

I'll start with Dr. Wilson.

In your opening statement, you talked about four areas that we need to focus on and strengthen. I look to those as recommendations, but I'm wondering about the sequencing of them. If we had a magic wand today, where would we start building capacity and focusing on more projects and more research that is indigenous and western in concepts, melded together in terms of a two-eyed seeing approach as we call it back home in Cape Breton? I'm wondering where we would start with investment.

I have another question. You mentioned project-based.... Having come from the not-for-profit world, we're always trying to focus on projects, whether they be research or not, because of the work and also to help fund the operations. In terms of your operations, is there any stable funding that you have right now that enables you to take a breath and focus on other areas that you may want to focus on?

**Dr. Katherine Wilson:** The short answer is no, we don't have any stable funding. A lot of the research funding that comes out is focused on pilots and outcomes, as opposed to investing in something long term.

When it comes to the sequencing of the four items we talked about, I think I would start in the order they were in the speech, namely, working with that leadership and at that community scale to understand their interests in community-based research. Honestly, very often their questions are global questions that trickle up.

Again, coming back to training and employment, a lot of the folks whom I work with are very young parents and, even if there were at university in Iqaluit, they still may not go from their community to Iqaluit and leave their families, because they need that support. I would not recommend taking a southern approach to universities but instead think about doing training in a different way so they can do the research themselves.

#### • (1255)

Mr. Mike Kelloway: It's interesting that you bring up trying to change mindsets, mine included, in how you view certain things. It's often been said—I forget the leadership theorist who said this—that culture drives strategy. I believe what that person was getting at is that the strategy doesn't drive culture.

A few moments ago, we talked about a bottom-up approach to a strategy. I wonder if both of you, with the time that I have left—which is about two minutes, which sounds like a game show now—could please give me a response about what that may look like.

We'll start with Dr. Wilson, and then we'll go to Aurora College.

**Dr. Katherine Wilson:** I'm not sure that I understand the question. Is it a bottom-up approach for an Arctic science strategy?

**Mr. Mike Kelloway:** You referenced earlier in the testimony that, as opposed to using a top-down strategy with government leading, it needs to be a collaborative approach.

Dr. Katherine Wilson: Yes.

**Mr. Mike Kelloway:** That is basically what I am getting at in terms of the culture, in terms of the people and the researchers who are there, and the elders who are there being a part of that from the bottom up.

**Dr. Katherine Wilson:** It would probably start with working with your regional governments, then going out to the communities and meeting with them and then going from that perspective.

Mr. Mike Kelloway: Now I'll turn to Aurora College.

**Ms. Pippa Seccombe-Hett:** I agree with Katherine. That would be the approach, starting with the regional governments and having them feed up.

Mr. Mike Kelloway: How much time do I have left?

The Chair: You have 32 seconds.

**Mr. Mike Kelloway:** I have 32 seconds left, and I didn't even use any of the questions that were in my book, because a lot of the questions have been asked.

Dr. Wilson, one thing intrigued me. As a former youth worker, you talked about focusing on young people. Within the time that we have, what are the age brackets? How long do you stay with the youth in terms of training? What's the aftercare with respect to the training?

**Dr. Katherine Wilson:** The ages of the youth are quite broad, from high school to mid-30s. They're usually with me for two to three years, and they either then become full-time SmartICE employees, and then they become trainers, because we're expanding, or they go on to other positions, which is also, I feel, a success.

I'd like to see more funding for the middle generation as well. There is a gap there for those over 35.

The Chair: Thank you very much.

We'll now turn to MP Blanchette-Joncas for two and a half minutes.

[Translation]

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

My next questions are for Ms. Seccombe-Hett, from Aurora College.

Ms. Seccombe-Hett, as someone representing a college in the Arctic, you know first-hand how to carry out research with communities there and identify what the research needs are.

I'd like to hear what you have to say about research funding.

What are your Arctic research needs at Aurora College?

[English]

Ms. Pippa Seccombe-Hett: That's challenging to answer.

What are the college research needs or the Arctic research needs? I see them as two different things.

The college needs for research are to focus on supporting community priorities and community-identified issues. Different from universities, what colleges bring is a focus on applied research and local research and the co-production of research.

The research needs for our region are articulated through our indigenous governments and our government of the Northwest Territories.

[Translation]

**Mr. Maxime Blanchette-Joncas:** Given where your college is located, how can you bring added value to Arctic research?

[English]

**Ms. Pippa Seccombe-Hett:** Value for our college is our ability to really collaborate on the ground, work with communities and be there in a long-term relationship.

Being on the ground, being able to meet regularly and being colocated really provides a lot of advantages for relationship development and the reciprocity that's expected working with indigenous communities. It gives you the time and the space to develop the relationships and build meaningful research programs based on community-identified priorities.

**•** (1300)

The Chair: Thank you very much.

We will now turn to MP Cannings for two and a half minutes.

Mr. Richard Cannings: Thank you.

I'm going to go back to Dr. Wilson at SmartICE.

You're associated with Memorial University. It's always good to have a Memorial alumna here at committee. Memorial and you are part of CINUK, which is the Canada-Inuit Nunangat-United Kingdom Arctic Research Programme.

Can you expand on that program and programs like it in the north? What role do they fill in doing research in a modern way—if I could put it that way—in the Arctic?

**Dr. Katherine Wilson:** When university researchers partner with SmartICE, we go back to our committee in the community to ask if this is research that they feel will benefit them. If they agree to it, then we follow an approach where our monitoring staff are involved in the research, so they are also getting the benefits and learning how to be researchers.

We're trying to train the next generation of Arctic researchers in the Arctic, as opposed to in the south. There are so many benefits to that. You don't have to teach them about ice, Arctic weather and culture. They come with that already.

It's almost an advantage for those researchers who are perhaps coming from the U.K. or something. I feel like they're getting a lot. It's an exchange of knowledge, so that our monitors are learning more skills and those coming from the U.K. are looking and understanding how they are to work in communities.

**Mr. Richard Cannings:** Do you see other examples of collaborations and partnerships like this in Arctic research with different universities that have that community base at the core?

**Dr. Katherine Wilson:** I think it's getting better. I think it's been mentioned in other testimony that there just aren't enough people at this point who have some of these skills.

That's what we're working towards, so that as our staff expand, grow and are doing work in their research, if other researchers come up in the summer and want to hire my staff to do GIS work, they're trained and they can contract themselves out to do that work now.

Mr. Richard Cannings: Thanks.

**The Chair:** Thank you. That's our time.

Thank you very much to both of our witnesses, Pippa Seccombe-Hett and Dr. Katherine Wilson, for your testimony and participation in the committee's study of science and research in Canada's Arctic in relation to climate change. You may see the clerk if you have any questions, and you may also submit additional information through the clerk.

We'll dismiss the witnesses now. Thank you very much again.

Members, today's meeting concludes the witness testimony portion of our study. At Thursday's meeting, we'll be providing drafting instructions to our analysts and will set a deadline for briefs for the study of science and research in Canada's Arctic.

At Thursday's meeting, we will also discuss committee business.

In addition to some other items, I know that we have a budget to approve for our upcoming plastics study. We'll look to begin the study of innovation, science and research in recycling plastics next Tuesday. The clerk has been working to confirm departmental officials to appear for the first meeting for the study.

Is it the will of the committee to adjourn the meeting?

Some hon, members: Yes.

The Chair: The meeting adjourned.

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