



HOUSE OF COMMONS  
CHAMBRE DES COMMUNES  
CANADA

44th PARLIAMENT, 1st SESSION

---

# Standing Committee on Foreign Affairs and International Development

EVIDENCE

**NUMBER 083**

Monday, November 20, 2023

---

Chair: Mr. Ali Ehsassi





# Standing Committee on Foreign Affairs and International Development

Monday, November 20, 2023

• (1105)

[English]

**The Chair (Mr. Ali Ehsassi (Willowdale, Lib.)):** I'd like to call the meeting to order.

Welcome to meeting number 83 of the House of Commons Standing Committee on Foreign Affairs and International Development. Today's meeting is taking place in a hybrid format, pursuant to the Standing Orders; therefore, members are attending in person in the room, as well as remotely using the Zoom application.

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

Before speaking, please wait until I recognize you by name. For those participating by video conference, click on the microphone icon to activate your mike, and mute yourself when you are not speaking. You may speak in the official language of your choice.

Although this room is equipped with a powerful audio system, feedback events can occur. These can be extremely harmful to the interpreters and can cause serious injuries. The most common cause of sound feedback, as I like to remind everyone, is an earpiece worn too close to a microphone.

With regard to a speaking list, the committee clerk and I will do our best to maintain a consolidated order of speaking for all members, whether they are participating virtually or in person.

In accordance with the committee's routine motion concerning connection tests for witnesses, I am informing the committee that all witnesses appearing virtually have completed the required connection tests in advance of the meeting.

Pursuant to Standing Order 108(2) and the motions adopted by the committee on Monday, January 31, 2022, and Tuesday, May 30, 2023, the committee resumes its study of the situation at the Russia-Ukraine border and implications for peace and security.

I'd now like to welcome our witnesses. We have Professor Jennifer Clapp from the University of Waterloo. She previously appeared before us, but we, regrettably, had connectivity problems. We also have Professor Wood from Western University. It's good to see you in person, Professor. Again, our apologies for the connectivity problems two weeks ago.

In addition to that, we have Mr. Jacob Irving, who is here in person. Mr. Irving is the president and chief executive officer of the Energy Council of Canada. Last, but certainly not least, we're also grateful to have, from the International Institute for Sustainable De-

velopment, Ms. Anna Ackermann, a policy analyst with the green reconstruction of Ukraine program.

We will start with the two witnesses who are here in person. Each of you will be provided with five minutes for your opening remarks. Then we will go to the members for questions.

If you see me holding this up, that means you are out of time and we ask that you wrap things up within 15 to 20 seconds. That applies not only to your opening remarks but also to the questions that the members will put to you.

All of that having been said, we will start off with Professor Wood.

The floor is yours. You have five minutes, sir.

**Dr. Geoffrey Wood (Professor, Western University, As an Individual):** Thank you very much. It's obviously a great joy to be here. I have to say that security here, I'll tell you, is much tighter than at the British House of Commons.

I've published both on long energy transitions and, in the past, on war. I'm happy to talk about either.

In terms of long energy transitions, a key point is that the global energy mix is changing. That is a long and very destabilizing process. That is the way it is.

Now, there are a couple of points that are quite salient. Actual estimates of oil and gas reserves vary hugely. Industry estimations tend to be very optimistic. That's a very simple point. The other thing is that, increasingly, oil and gas in the world are unconventional sources. The key thing about that is there has been tremendous expansion of it that was predicated on cheap money. As we know from the U.S. case, now that money is more expensive, unconventional oil and gas is not growing as fast as it was.

I'm going to tell you a quick story before I move on to the subject of war. My mother-in-law from England came to visit us a couple of weeks ago, and she was describing how growing up in rural England in the 1940s and early 1950s they had no electricity and no running water and still largely had horses in the fields. That was true for the rest of the world. The world has changed tremendously in a generation, and for some people in cities maybe two or three generations. Those sorts of big changes, history alerts us, come at costs, and we're only becoming aware of those costs these days.

I'll turn to the subject of war.

Commentators love quoting Clausewitz, and Clausewitz has wonderful one-liners, like "fog of war" and "War is...a continuation of politics". Clausewitz said lots of uncomfortable things, which people like to gloss over. The first thing is that war is a very unpleasant business. Clausewitz was writing in the early 19th century, when there was a general view that you did not involve civilians in war, to a large extent. That was done by professionals. Nowadays, that seems acceptable.

The other point, as Clausewitz argued, is that defensive is much stronger than offensive. That favoured the Ukrainians in the opening stage of the war. Regrettably, it obviously favours the Russian side these days. There's a further point that is really worth considering. The recent case of Armenia and Nagorno-Karabakh alerts us to the fact that, for countries that are reliant on great power help from the outside, if that great power help is speedily removed, the consequences can be very unpredictable, and we all know the potential radical change of U.S. support after the next election. That sounds very pessimistic.

People love to use the analogy of the Finnish Winter War to describe Ukraine. There are key differences. The Finns were very successful in keeping their casualties down; that's the first point. The second thing is that perhaps the bargaining position of Ukraine over the last few weeks has diminished. In my previous deposition, I made the point that maybe it's a stalemate, and obviously since then a lot of commentators have talked about a stalemate. People in the U.S. military are talking about how a stalemate would be a good outcome, so there's a certain degree of unpredictability.

Optimism.... Under very bleak circumstances, Finland, in 1945, managed to secure peace with Russia. It was a very bitter pill but, nonetheless, it did preserve national independence.

These are very challenging times. Where does this leave Canada? A question is, "What happened to Armenia's other allies when Russia pulled the plug on it?" It's a very good question.

I think I've used about four minutes, Mr. Chair, and I won't exhaust your patience any further.

• (1110)

**The Chair:** Thank you, Professor Wood.

We will now go to Mr. Irving.

Mr. Irving, you also have five minutes for your opening remarks.

**Mr. Jacob Irving (President and Chief Executive Officer, Energy Council of Canada):** Good morning, everyone.

Thank you very much for the invitation, Mr. Chair and members of the committee.

I will confess I'm a bit of a late entrant to this committee. In my organization, the Energy Council of Canada, I often like to say we are an inch deep and a mile wide. We speak generally to Canadian energy, so I'm able to answer some fairly general questions about the state of energy in Canada, but on more specific ones, particularly ones pertaining to the war in Ukraine, I might disappoint you a little. I just want to let you know that off the top, but I will endeavour to do my best to answer any questions you have.

[*Translation*]

I would be glad to answer the committee members' questions in French.

[*English*]

Maybe I'll start by telling you a little bit about the Energy Council of Canada. We are a non-partisan, not-for-profit, technology-neutral promoter of Canadian energy leadership at home and abroad. We were founded by Natural Resources Canada back in 1984. They're our founding member and remain a member with us to this day. The rest of our membership is made up of energy industry players from across the spectrum and from the different sectors, including petroleum and electricity as well.

What I wanted to talk to you about today is our relatively new program, which we call the North American and international outreach program, or NAIIO. It is essentially pulling together all of the different energy players from across Canada, developing a high-level, general, neutral and positive story about Canada's energy resources and abilities, and then communicating it to the rest of the world in a concerted fashion. Really, what this has been about is enlisting Canada's energy industry to communicate Canada's energy industry externally like never before. The way I would put it is that when it comes to communicating Canadian energy outside of our own borders, in many ways we rely on our ministers, federal and provincial, to do it for us. We're all used to the natural resources minister championing Canadian energy and the various energy and mines ministers from across the country doing it, as well. This is terrific; it is good and it should continue. In fact, I would like to see more of it. I'm biased in that way.

Our national industry associations do some of this work, as well. You're familiar with them. They are members with us. They're partners with us, organizations like the Canadian Association of Petroleum Producers, Electricity Canada, the Canadian Nuclear Association and the Canadian Gas Association. They are all aligned with us. They do some of this work, as well, but often within their own sectors and within their own spheres. You're probably used to the Canadian Association of Petroleum Producers going to CER-AWeek once a year in Houston and making the Canadian energy argument there, or Electricity Canada having their board meeting once a year in Washington and doing that, as well.

These are all excellent efforts to try to promote Canadian energy outside our borders, but it's useful to remember that their primary mandate as industry organizations in Canada is the development of Canadian energy within Canada. Their primary mandate is not the communication of Canadian energy outside of our borders. This is what the Energy Council of Canada has attempted to take on through its North American and international outreach program.

To be honest with you, it's really only been in action for about a year. We built this program during the pandemic, which was actually a good opportunity to work on this and pull everyone together to create common messaging, but we only started delivering it this past year in person. There was no travel up until this year, really.

We've been successful and we work with Global Affairs Canada and the trade commissioners around the world. They find opportunities for us to deliver this new concerted message—I call it a positive neutral message—that communicates our energy story. This past year, we were in Jamaica, South Africa and Vietnam, and I recently participated in an event in Boston.

The whole idea behind this, if I can put it simply.... My perception is that, during my lifetime, our strategy about Canadian energy has been deceptively simple. It has basically been that we'll make as much energy as the Americans can take, and they'll take as much as we can make, and there's no need to advertise. That has been great for both of our countries. It has built stability and strength on both sides of our border, but in 2023, it's no longer the case. The United States is not a dependent customer. They are a competitor with us. It's now up to us to communicate our value proposition, both in the United States to secure, maintain and grow our markets there, and also in new places elsewhere.

That's a bit of an idea of where we fit into the picture. We would really enjoy getting involved in the conversation more.

Thank you.

• (1115)

**The Chair:** Thank you very much, Mr. Irving.

We will now go to Professor Clapp, who is joining us virtually.

Professor Clapp, you have five minutes for your opening remarks.

• (1120)

**Ms. Jennifer Clapp (Professor, University of Waterloo, As an Individual):** Thank you, Mr. Chair.

Thank you to the committee for the opportunity to speak today.

Previous speakers spoke about energy markets. I will be speaking about food security.

I'd like to make three points in relation to the global food security consequences of the Russian invasion of Ukraine. These comments are based on my own research as an academic, as well as in my role as a member of several international expert panels on food security.

The first point I'd like to make is that world food security has been profoundly affected by the decline of Ukrainian grain on the world market. Russia's illegal invasion of Ukraine caused signifi-

cant turmoil in global grain markets, resulting in a major price spike in 2022 that was sparked by concerns about global grain supplies—especially because, at the time, Russia and Ukraine together accounted for around one-quarter of the world's wheat export market and around one-fifth of the world's maize market.

As a result of this market turmoil, food import bills rose sharply around the world, especially in the months following the invasion, and these price increases hit the food import-dependent developing countries the hardest. These are especially countries in sub-Saharan Africa and the Middle East. Many of these countries relied on imports of grain from Russia and Ukraine to meet their food security needs.

The result of this turmoil and price increase was a dramatic increase in global hunger. After a decade in which we saw hunger generally falling around the world, the situation reversed after 2019. The pandemic was certainly a significant reason for the increase in hunger, but so was the war in Ukraine. The UN estimates that, globally, around 122 million more people faced hunger in 2022 than in 2019, and that around 20 million to 30 million of the people facing hunger today—a total of around 800 million people—are facing hunger because of the war in Ukraine.

Global grain markets today have largely adjusted to the initial shock, and the prices of wheat and other grains have since receded from their high levels of 2022, but they still remain elevated and, given high levels of debt and rising interest rates, the global hunger situation remains highly precarious.

The second point I'd like to make is that the Black Sea grain deal has been important, but its end has not led to further market turmoil, at least not on the same scale that we saw before. The brokering of the Black Sea grain initiative in July 2022 eased some of the market fears by allowing the safe export of some of Ukraine's grain via Black Sea shipping routes. This deal is widely seen to have contributed to a decline in grain prices between mid-2022 and mid-2023. Some of that grain, but not all, went to the poorest countries in need. In July of this year, Russia pulled out of the Black Sea grain deal. Wheat prices briefly rose but have since come down again, although the world wheat market remains tight.

Ukraine is now exporting much of its grain via the Danube River, and it has established its own humanitarian corridor through the Black Sea. Ukraine has pursued these alternate routes of export because its overland shipments, which occurred in the immediate aftermath of the invasion, flooded the markets of its neighbours—Poland, Hungary, Slovakia, Romania and Bulgaria—which prompted those countries to ban the import of Ukrainian grain because it was depressing prices in their markets. Throughout this market turmoil, Russia has doubled its global grain exports since 2022. Russia is now the largest wheat exporter in the world, and it has captured some of the markets that Ukraine had previously supplied.

The third point I'd like to make is that Canada can play an important role in this context by supporting developing countries that depend on food imports for their food security. Canada's humanitarian assistance and exports of wheat to world markets have been important in helping food import-dependent countries to access the food they need in the short run, but Canada can also do more to support food deficit developing countries to sustainably increase their own food production, which is vital for long-run food security in those countries. It's especially important to support small-scale producers, who are important providers of food in those contexts.

Support for food production in developing countries is important because global grain markets today are highly concentrated, which makes the trading system very vulnerable to shocks, as we saw in the case of Ukraine. Just five exporters—Russia, the EU, Canada, Australia and the U.S.—account for over 70% of the world wheat trade, and maize markets are similarly concentrated. If a shock affects one or more of these exporters, there are huge food security consequences for the poorest countries via higher prices. For these countries, encouraging them to rely on concentrated markets introduces risks, especially in an age of accelerating climate change and geopolitical conflicts that make shocks and disruptions to markets more likely.

• (1125)

As such, Canada can play an important role in supporting greater market diversity, including by helping the most vulnerable food deficit countries to sustainably increase their domestic food production, which would better enable them to weather disruptions to global grain markets caused by shocks.

Thank you very much. I look forward to the discussion.

**The Chair:** Thank you very much, Professor Clapp.

We now go to our final witness for the first panel.

Ms. Ackermann, the floor is yours for five minutes.

**Ms. Anna Ackermann (Policy Analyst, Green Reconstruction of Ukraine, International Institute for Sustainable Development):** Hello, Mr. Chair and members of the committee. Thank you for inviting me to today's hearing and for all of the support Canada has given the people of Ukraine.

I represent the International Institute for Sustainable Development, working from Geneva, where since last year I have led work on a sustainable recovery of Ukraine. I also represent Ukraine's largest environmental NGO, the Center for Environmental Initiatives Ecoaction, as a board member and one of the founding members. I'm a Ukrainian myself, with a background in energy and environmental policy, and it's these two topics of energy and environment that I would like to touch upon in my short statement today.

A few days ago, Dmytro Kuleba, Minister of Foreign Affairs of Ukraine, said that we are preparing for the worst winter in our history. Ukraine is a big country, and protecting the highly centralized energy system and all the power plants from Russia's terrorist attacks is a complicated task, especially without sufficient air defence. This is a matter of our survival.

There is another mid-term perspective we should also be looking at: ways to transform the Ukrainian energy system into a more de-

centralized and more resilient one to avoid big future disruptions. Recently, 50 Ukrainian municipal leaders signed a letter to the U.S. government requesting support for communities in Ukraine, especially in the form of renewable energy technologies.

Indeed, we see through our work that many Ukrainian cities consider solar panels, storage systems, and heat pumps as effective solutions to improve local energy security. The first pilot projects of this kind, mostly implemented with the support of NGOs and international partners, started appearing around the country in autumn last year. Communities are, of course, giving priority to modernizing the energy systems that are supporting critical infrastructure, such as hospitals, water supply systems, schools and so on. However, the financial mechanisms available to implement such projects are limited for the moment, and this is where some Canadian support would be most valuable.

This transformation of the energy system, which is also embedded in the new energy strategy of Ukraine by 2050, goes beyond decentralized energy production. It's also a way to decarbonize the economy, create new jobs and support local production of green technologies and materials, which are required for the energy transition not only in Ukraine but also worldwide.

Since 2017, together with colleagues from Ecoaction, we have been working with coal-mining communities in the Donetsk region, in eastern Ukraine, on their just transition away from coal. Most of them were keen to see their economies diversified and transformed into more sustainable ones. The city of Vuhledar, with enough coal to last for decades, provided impressive leadership in these debates. Vuhledar now lies in ruins, completely destroyed by Russia, with its coal mines flooded, just like many neglected mines in Ukrainian territories controlled by Russia since 2014. Flooding of coal mines leads to grave consequences, including soil and water pollution.

The Ukrainian government estimates the overall cost to the environment from the war to be more than \$70 billion Canadian, and this is only since February 24 of last year. The scale of the damage is enormous, and substantial resources are of course needed to analyze, monitor, and remediate the pollution and to deal with many other types of damage to the environment. Ukraine will need significant support with this throughout the years to come.

Finally, the Kakhovka Dam destruction in June 2023 became one of the most consequential events in terms of the scale of its impact on people and the environment. The destruction resulted in flooded cities, hundreds of thousands of people with limited access to fresh water, mines and pollution washed into the sea, and an increased risk to the Zaporizhzhia nuclear power plant, occupied by Russia. This is an ecocide. The area where the Kakhovka reservoir used to be is now becoming a huge young forest. This is incredible. Researchers are calling for a careful examination of options that are needed for reconstruction of the dam to make sure that we don't repeat mistakes of the past and do build back better.

Ukrainians want to build back better. They want to rebuild, and they started rebuilding as soon as the first cities and regions were liberated at the end of last year. We want to build a more sustainable future. Since Canada is already planning to assist Ukrainian communities in making an inclusive recovery, attention should also be given to ways Ukraine could transition to a green economy. Only a strong and prosperous Ukraine could provide security for its people and Europe.

I thank you for your attention, and I will be glad to answer any questions.

• (1130)

**The Chair:** Thank you very much, Ms. Ackermann. Your timing was perfect.

We now go to the members for their questions.

We will first go to MP Hoback for six minutes.

**Mr. Randy Hoback (Prince Albert, CPC):** Thank you, Chair.

Chair, I think this room makes a difference. We actually could hear her and have all of the witnesses. It's really nice to see.

I want to thank all of the witnesses for being here on a Monday morning on this important topic, for sure.

Maybe I'll start with you, Mr. Irving. When you talk about Canada and promoting Canadian energy abroad, you're talking about nuclear, oil and gas, LNG. You're probably talking about hydrogen, I assume, too, somewhere down the road. How do they fit together as we see groups and countries transition from conventional fossil fuels into more renewables? How could Canada be part of that chain through the whole process? Are we part of that chain through the whole process now?

As I've said, we don't really ship any LNG. The U.S. ships it all now. We're not taking up the slack in lots of those areas.

**Mr. Jacob Irving:** I appreciate the question, because our mission, as the Energy Council of Canada.... As I said, we're technology-neutral and positive in our communication. Essentially, it almost sounds simplistic, but what we're trying to do is demonstrate to the rest of the world that when it comes to energy, Canada does it all. That is fairly remarkable for a country of our population—maybe not necessarily our geographic size, but our population. When you think of every single facet of energy, Canada is involved in every single one—from geothermal to tidal and all of the different sources you mentioned—and we actually have strong leadership stakes in many of them.

In hydro power, for example, Canada is the world's second-largest generator of hydro power, just behind China.

**Mr. Randy Hoback:** How do we rank internationally, then, as we look at the conventional fuels? Again, moving up the chain, Europe had to go to some countries like Qatar to get LNG, and Algeria and Nigeria for oil and gas. What would that look like if it had come from Canada versus those countries? How would our global environmental footprint look in that scenario?

**Mr. Jacob Irving:** Well, one interesting thing about Canadian LNG is actually the marriage of our different energy technologies. When you think about LNG leaving our coasts—east or west—one of the largest parts of the footprint is in the liquefaction of the natural gas. When you actually have to turn it into a liquid, put it on a ship and send it, there's a lot of power and energy required. It just so happens that both of our extreme coasts are predominantly using hydro power. What that means is that we would be using non-emitting electricity to make our LNG, which means that our LNG is, and would be, the least emitting in the world.

**Mr. Randy Hoback:** Let's go back to the well cycle—going right to the production where it's coming out of the ground—and look at methane emissions and things like that. How would that compare to Qatar or other countries where Europe is now forced to get their LNG from, because Canada wouldn't offer it to them?

**Mr. Jacob Irving:** I don't have the comparative analysis on it, but I can speak a little bit to our progress in that.

In Canada, when it comes to methane reductions, we've seen that our distribution system emissions have fallen over 20% since 2000, while volumes of production have grown. That's a lot of stats and facts, but I think the message out of it is that, even as we've grown natural gas production in Canada, we have reduced our emissions. What does that say? To me, it says that Canada should be trusted to produce more of this with less emissions, because we have a track record of doing so.

The typical difficulty that Canada faces is that the world wants to see absolute emissions reductions from everybody—from Canada and from any other country. In Canada, we have a great history in reductions per barrel, per molecule, but we're being asked to deliver more, and that risks raising the—

• (1135)

**Mr. Randy Hoback:** I guess I'm just trying to compare it to the international scene.

I look at our industry—the duty to consult, the whole process that we go through. How does that compare to a country like Qatar? How does that compare to even the U.S., for example?

**Mr. Jacob Irving:** Well, we don't try to take on the business of comparing ourselves to other countries, but we do try to—

**Mr. Randy Hoback:** Well, we do have to sell our ESG. We do have to sell what we are.

**Mr. Jacob Irving:** Exactly, we do try to communicate who we are, to your point. One of our key messages, and this is interesting from the industry side, is that a lot of the time we do talk about the way Canada makes energy as being important. I often like to say that Canada is a responsible energy producer because it's a responsible energy producer. We do it within the context of one of the world's oldest and most sophisticated democracies. That should count for something nowadays.

**Mr. Randy Hoback:** That would explain why Europe came here first. That would explain why Europe came to Canada first, looking for relief from Russian oil and gas. It makes sense because if you look at how we actually conduct business, how we work through the whole supply chain, and if you look into the future with our nuclear technology and hydrogen, wouldn't you see that we would be a natural partner? If we would be, why aren't we?

**Mr. Jacob Irving:** There are a lot of great potential synergies there.

I would mention that the reason I am actually here in Ottawa this week is that I'm attending a conference tomorrow called "The Three Seas Initiative: An Opportunity for Canada", which is put on by the Government of Poland, the embassy of Poland. It's doing it with the Macdonald-Laurier Institute. It's going to be on at 10:30 tomorrow morning at the National Arts Centre—

**Mr. Randy Hoback:** I only have five minutes—

**Mr. Jacob Irving:** Oh, I'm sorry.

However, this is precisely the point that they make back toward Canada: that the marriage of our values should—

**Mr. Randy Hoback:** That's what kind of puzzles me, because if you tell the EU that we can't—

**The Chair:** Mr. Hoback, I'm afraid your six minutes are up.

**Mr. Randy Hoback:** That's fast. You have a fast watch there, Mr. Chair.

Thank you for your time.

**The Chair:** We will next go to MP Chatel.

You have six minutes.

[*Translation*]

**Mrs. Sophie Chatel (Pontiac, Lib.):** Thank you, Mr. Chair.

Welcome to the witnesses, who are joining us remotely as well as in person. Thank you for coming to meet with us in person, Mr. Wood.

Ms. Clapp, you wrote in an article that the major agri-food firms play a significant role in undermining global food security.

I recently met with constituents to talk about food security in Canada. The government introduced legislation that has met with wide support, Bill C-56. In part, its purpose is to address the concentration of power among the major food chains, which creates problems, including undermining food security in Canada.

In concrete terms, how do those big food chains weaken or undermine food security in Canada and elsewhere in the world?

[*English*]

**Ms. Jennifer Clapp:** I presume you're talking about the food retail sector or different parts of the food supply chain. If it's okay, I can give a general answer, because a large amount of my work has been on the concentration of power among a small number of firms at various points in agri-food supply chains. That is the case all the way from farm inputs—like seeds, chemicals, machinery and fertilizer—to food production and processing, and also the international food trade, the grain-trading companies, as well as on the food retail side.

The concentration of power at these different points in the food supply chain can affect food security, because when there are just a few players in the market, they tend to have what we call "market power", which enables them to have a greater degree of say over the supply-and-demand conditions within which they operate. This enables them, for example, to pay less to suppliers at the same time that they might charge more to consumers. This can lead to a situation where workers in the food system might be receiving less of the benefits from the system than they would otherwise. Also, consumers might end up paying more out of their own pocketbooks for food. These effects can multiply throughout the food system.

I hope that answers your question. Thank you.

• (1140)

[*Translation*]

**Mrs. Sophie Chatel:** Yes, thank you.

In your opening statement, you talked about how climate change and extreme weather events have a tremendous impact on agriculture and, by extension, global food security.

One of the main reasons countries go to war is to go after more resources. With food and water resources growing more scarce because of climate change, it's said that climate change will trigger more wars.

Do you think climate change is going to trigger more wars over access to resources? Are there meaningful ways to achieve more stability around the world?

[*English*]

**Ms. Jennifer Clapp:** Thank you very much for that question.

Yes, indeed. The acceleration of global climate change can exacerbate geopolitical tensions as countries vie for access to vital resources, including resources in the food system.



From my research, which has looked at problems of concentration in food systems, one of the best ways to address the problem of climate change, which can, for example, reduce the production in a particular exporting country.... Take India, for example. Last year, in an extreme heat event, it lost around 25% of its wheat crop. It's an exporter to many developing countries, but also this year, El Niño has caused a reduction in its rice production. As we know, India has put an export ban in place on non-basmati rice, which has led to higher prices of rice on the world market. That directly affects food security.

One way to deal with this issue, I would argue, is to ensure greater diversity for resilience within global food systems. What I mean by that is enabling more countries around the world to produce more of their own food that they consume at home in order to allow a diverse system whereby countries can rely not just on global markets, but also on their domestic production. I'm not saying that every country should be food self-sufficient, but what we need is a system where there's a better balance between domestic production and trade. It's difficult to achieve that balance exactly, and Canada certainly plays a role in global food and grain markets, but I think there's a definite need to increase that domestic resilience in production through sustainable forms of agriculture that are more resilient to climate change.

[Translation]

**Mrs. Sophie Chatel:** Thank you very much.

[English]

**The Chair:** Your time is over.

Mr. Bergeron, it is now your turn. You have six minutes, Mr. Bergeron.

[Translation]

**Mr. Stéphane Bergeron (Montarville, BQ):** Thank you, Mr. Chair.

Thank you to the witnesses for being here today to give us insight into how the war in Ukraine is impacting food and fuel supplies.

Thank you, Mr. Wood, for being so patient last time, and for coming back today and meeting with us in person. We certainly appreciate it. I'll start with my questions for you.

On October 25, you said structural changes in today's world had amplified the impact of food security crises. You went on to say this:

In the 1980s, there were periodic crop failures in the former Soviet Union, yet there wasn't as much of the risk of mass starvation in the world as there is these days. There's a lot more vulnerability in the global system.

Why is that?

[English]

**Dr. Geoffrey Wood:** I can start by using an analogy from quantum physics. Everybody has heard of Schrödinger's cat. I will tell you in one sentence how it works: Everything is connected.

The issue with climate change is that it is fundamentally about the breakdown of the relationship between humanity and the natu-

ral world. Now, I have a couple of points about that, which are really important.

The first is that interconnections can occur in unforeseen ways. You can speak to volcanologists, say, about the effect of the melting of the ice caps, the weight of the earth's crust and what this means in terms of climate change and food security. You're well aware that in the 1980s the Soviet Union regularly had poor harvests. Lots of the time, people in the world economy didn't notice. There's essentially what economists like to call the "omnicrisis". It's that you have multiple crises interconnected in subtle ways. There's a huge body of literature on this.

Now, the bad news is that the human mind is wired in such a way that it deals quite well with immediate, visible challenges. The human mind is not very good at dealing with large, complex and interconnected existential challenges. However, realizing that there is this very strong interconnectedness of events means that we have to be a lot more aware of what is happening in different parts of the world and try to explore for ourselves how they are connected.

• (1145)

[Translation]

**Mr. Stéphane Bergeron:** Thank you ever so much.

Mr. Wood, what you're saying is somewhat counterintuitive. Advances in technology should result in higher food production. That's what I would think anyways.

Do you think improving technology is having a counterproductive impact on nature, leading to lower production?

[English]

**Dr. Geoffrey Wood:** I think the first thing, which is well known in the sciences, is that we know the immediate benefits of advances in technology, but we don't know the consequences a long way down the line. Jared Diamond makes the point that when automobiles came out, everybody was relieved. We didn't have piles of horse manure and dying horses in the streets, yet obviously there were subtle effects down the line. Technology has unforeseen consequences. Every technological advance has unforeseen consequences. The trouble is that we don't know the consequences until a while down the line.

The second thing is that transformative technological fixes seem to be becoming harder. There are a whole range of ways you can explain that. Possibly it's the way the patenting system works, or possibly it's because of crises multiplying faster than the fixes. This essentially makes for much more unpredictability.

[Translation]

**Mr. Stéphane Bergeron:** Do you think Thomas Robert Malthus was right to say that population growth will eventually outpace our ability to feed everyone?

[English]

**Dr. Geoffrey Wood:** That's an interesting point. Obviously, different people in different parts of the world have very different diets and different issues. However, it does feed into that point. One in every five people in the world is now on the move, and those figures will increase. Essentially, you could argue that it is not so much a problem of the number of people. It's when people are situated in areas of the world that are prone to natural disasters and climate change, and disparity in global diets.

However, these great historical forces are very difficult to manage.

[Translation]

**Mr. Stéphane Bergeron:** Mr. Wood, you rightly pointed out—

[English]

**The Chair:** You have 10 seconds, Mr. Bergeron.

[Translation]

**Mr. Stéphane Bergeron:** I'll come back to it next time.

[English]

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

We now go to MP McPherson.

You have six minutes.

**Ms. Heather McPherson (Edmonton Strathcona, NDP):** Thank you, Mr. Chair.

Thank you all for being here today and for your testimony.

Dr. Wood, I'm going to continue on with you, if I could.

One thing we know is that right now in the south of Ukraine, it's very difficult for farming. The mines in place in the south and eastern parts are having a huge impact on the production of food. I know that we have a number of Russians on the sanctions list, but I learned last week that Canada exported 193,000 detonators to Kyrgyzstan in 2022. That was up from zero detonators in 2021. Unfortunately, Kyrgyzstan then exported 115,000 detonators to Russia. In effect, it appears that the detonators from Canada are actually being used in those mines that are preventing food security.

You talked about the interconnectedness of everything and about how we need to do better as a global community. Perhaps you could just discuss the implications of our sanctions regime not working effectively and what that means for Ukraine.

• (1150)

**Dr. Geoffrey Wood:** Obviously, the sanctions regime is not working. There are things that can be done. The most obvious and simplest one is better regulation of crypto. Twenty-five per cent of crypto use is by criminals. Criminals are unusual.... In the same way as people who are busting sanctions on behalf of Russia, they don't mind if they lose money. People are always horrified about how volatile crypto is. If you are a criminal or a sanctions-buster,

you don't care how much money you lose. This is, of course, why crypto currencies haven't gone away. They should have gone away in terms of economic logic. That's the first thing.

Obviously, the second one is better regulation of tax havens.

The third thing goes back to your Kyrgyzstan point, which is having a better understanding of how value chains work. This is a bit of a sideline, as I had a significant British research grant a few years back looking at trying to improve accounting down supply chains.

I think the three things are practicality, improved accounting down supply chains and having much tighter restrictions around the flow of money. It can be done.

**Ms. Heather McPherson:** These are detonators. We do have an arms trade treaty that Canada signs on to that we don't adhere to, obviously, but there are also economic implications. Canada is giving millions of dollars to Ukraine to demine their fields, and at the same time it is providing the product that actually produces the mines, which is, of course, pretty counter.

Thank you very much for that.

Dr. Clapp, we had Paul Hagerman at one of our previous meetings. He came in from the Canadian Foodgrains Bank. He talked about the need for balance in food security and about providing food to people versus their ability to have food security in a longer-term process. Right now, in terms of Canada's ODA, he argued that our balance is not appropriate at this point. We don't have an adequate balance.

I have a couple of questions for you with regard to food security in Canada's development window or envelope. First, right now our ODA—at just over 0.3%, when we have committed to 0.7%—is too low. We don't have our food aid indexed to the price of food as it increases. I'm wondering if you could talk a little bit about how Canada could do better in providing aid for food and how we could manage that balance better between humanitarian and long-term development.

**Ms. Jennifer Clapp:** Thank you very much for that question.

Indeed, Paul Hagerman is a good colleague. I would agree with him that there needs to be a better balance between short-term humanitarian assistance and longer-term assistance for food security, especially in the world's poorest and food import-dependent countries.

Obviously, the provision of humanitarian food assistance is addressing what we consider to be short-term emergencies. It's unfortunate that the amount of this aid is not indexed to food prices. When food prices rise, it means that the impact of what Canada is able to provide is definitely weakened. At the same time, we have to be careful not to rely on humanitarian assistance as a long-term strategy. That's where the recent reduction in Canada's development assistance overall, including for rural development, is unfortunate.

There need to be more resources put toward increasing the capacity of the poorest countries to produce their own food, and to do so sustainably. If Canada can be a leader in providing assistance, for example, for agroecological farming methods that rely less on synthetic fertilizers and fossil fuels, this could go even further to help insulate developing countries from shocks caused by the kinds of events that lead to higher prices across the board—food, energy and fertilizer.

• (1155)

**Ms. Heather McPherson:** I think that's my time, Mr. Chair.

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

We will now go to the second round and start off with MP Chong.

You have four minutes, MP Chong.

**Hon. Michael Chong (Wellington—Halton Hills, CPC):** Thank you, Mr. Chair.

Russia is still exporting natural gas in the form of liquefied natural gas to Europe. Europe is buying billions of dollars of this LNG from Russia. The data I looked up recently showed that in the first seven months of this year, Russian LNG exports to Europe jumped 40%. The other thing that's happening is that Europe, because it can't get enough natural gas, is switching to burning coal for electricity generation. We know from the Government of Canada's own data that one-fifth of all global emissions come from coal-fired electricity plants. A kilowatt hour of electricity generated from coal has double the emissions of a kilowatt hour of electricity generated from gas.

On October 9, 2023, Gregory Ebel, the president of Enbridge Inc., wrote that Canadian natural gas exports could “displace coal” in Europe and Asia and “have a tremendous impact on reducing global emissions—one far greater than Canada merely achieving its own 2050 net-zero commitment.” He further called on the Canadian government “to adopt policies and regulatory measures to enable the responsible and efficient development and export of this important resource while also streamlining permitting processes to better respond to the urgent need for more gas.”

My question for you, Mr. Irving, is this: Do you agree with Mr. Ebel's assertion that increased exports of Canadian natural gas could reduce global greenhouse gas emissions, and if so, why?

**Mr. Jacob Irving:** I would agree, and I do think we're about to see that in action with the commissioning of the largest private infrastructure project in the history of Canada on the west coast from LNG Canada, which will be taking western natural gas and sending it to Asian markets.

I think that one of the interesting effects of natural gas is the slow development toward an internationalization of that commodity. Usually the prices are very regional and they reflect local supply and demand. As natural gas starts being shipped around the world, you might start seeing more of an international, global price on it, similar to what you see with oil.

**Hon. Michael Chong:** What policies and regulatory measures could the Canadian government take to facilitate greater exports of Canadian LNG?

**Mr. Jacob Irving:** Unfortunately, I don't have recommendations in that regard. That's probably an area where you might want to talk to the Canadian Gas Association.

**Hon. Michael Chong:** Let me ask you another question, then. According to StatsCan, Canadian energy exports increased last year, driven by an 8% increase in natural gas. The agency added that, in 2022, the United States increased exports of LNG to Europe and increased its imports of Canadian natural gas to compensate.

Would it not be better for Canada to directly export its own LNG, taking advantage of the higher margins that LNG has vis-à-vis natural gas via pipeline to the United States?

**Mr. Jacob Irving:** It's a good question. I think that once LNG Canada is up and operational, we will have a lot more information and data on that, but you are correct. You talk about international co-operation in energy, and Canada and the United States are more interconnected than almost any other countries in the world. There are 70 pipelines and 35 electricity interties. We have been able to shore up North American reserves, allowing North America to send liquefied natural gas to Europe, which, I think, has been very advantageous in the conflict we're seeing.

• (1200)

**The Chair:** Thank you for that.

We now go to MP Oliphant.

You have four minutes.

**Hon. Robert Oliphant (Don Valley West, Lib.):** Thanks, Mr. Chair.

I want to begin by thanking you and the clerk for getting us out of the basement. I do think it makes a difference. I do think that was a problem, and I want to thank our witnesses who were not able to connect last time for continuing. I think we will take responsibility for that.

I want to go to Professor Clapp.

I'll put you in a difficult position. I'm listening to all the testimony on this area of food, and I'm trying to discern Canada's role. I want you to help me a little bit with priorities. I know we want everything—everybody always wants everything—but I'm trying to look at what Canada's role would be. I'm looking at delivery of food, increasing production in Canada and getting food out of our country and into places where they need food and can have it at affordable prices.

There's money, dollars for developing countries to buy food. We need to increase that, obviously, but that's also a cost.

Concerning long-term development, you have been talking about it in terms of yields, in terms of sustainable production and in terms of having countries be able to create their own food supply chains, particularly in Africa but not only in Africa.

Then there are diplomacy and multilateral activity, working on all the ways in which countries, particularly the developing world, do the exchange of ideas, laws, sanctions, promotions and engagement at that diplomatic level.

There are four areas. There are probably more, but in my head right now there are four areas. Can you help me a little bit with where you think this committee should be pushing government on our priorities in the area of food security? I'm sorry for the hard question. I know you will say “everything”.

**Ms. Jennifer Clapp:** It's a difficult question, and there's certainly a lot on the table with respect to the question.

In terms of what needs to be done, we have to think short-term and also long-term. Immediately dealing with the crisis of food insecurity, it's important for Canada to support efforts towards debt relief. We know that the debt problem is quite dire at the moment in most food import-dependent developing countries, and it's set to get worse. Canada can support international efforts to relieve debt, because we don't want countries having to choose between feeding their populations and paying foreign debts. That's something that can be done, but it can be done alongside other measures, such as providing humanitarian assistance.

I would caution against Canada trying to break into, for example, wheat export markets in new regions like sub-Saharan Africa, because the kind of wheat that Russia and Ukraine have been selling to sub-Saharan Africa is a different quality of wheat than what Canada produces. It has lower protein content, and it's significantly cheaper. I don't think Canada is going to be able to think about breaking into those markets, necessarily. It's better to provide to global markets generally, which can provide liquidity in those markets, which can help reduce prices. I think that's what is necessary for those countries depending on food imports and the continued provision of humanitarian assistance.

All of those things can be done immediately, but I don't think those immediate steps necessarily preclude taking the longer-term steps towards thinking more strategically and carefully about what we need to do to transition to more sustainable forms of agriculture. I think we need to have that conversation in Canada but also throughout...the assistance that Canada provides internationally.

I don't know if I answered your question completely, but I appreciate it, and I don't want to take up too much more of your time.

**Hon. Robert Oliphant:** It would be a staged response.

Thank you.

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

We now go to Mr. Bergeron.

You have two minutes.

[*Translation*]

**Mr. Stéphane Bergeron:** Thank you, Mr. Chair.

I'm going to pick up where I left off earlier.

Mr. Wood, you rightly pointed out that not everyone on the planet has enough to eat or consumes the same number of calories on a daily basis. Ms. Clapp was part of an expert panel on food systems that released a report in March 2023. The report concludes that “never again should countries have to choose between repaying debts and ensuring people are fed.”

Do you agree with that statement by the expert panel Ms. Clapp was on? It seems to suggest that the difficult financial situations of some developing countries is partly to blame for the food insecurity problems in those countries.

• (1205)

[*English*]

**Dr. Geoffrey Wood:** There are two key points on this.

The first is a regulatory point. The world does need to regulate vulture funds better. Actually, I did a book on hedge funds quite recently, and one of the issues was vulture funds. Until those are regulated, there's a structural problem.

The other point about it is that some countries are not going to be viable as places to live, and this is about more than food production. Some parts of countries are not going to be viable as places to live. Again, this transcends food production. Nobody has ever moved a megacity, but if you speak to climatographers, they'll say that you may have to move Delhi; you may have to move Beijing, and you may even have to move LA. Of course, once you have those kinds of big movements of people, even within countries, that changes fundamentally the basis of food production, and it challenges the basis of food supply, so there are big, structural things.

There are two things to take away. The first is the regulation of vulture funds, in terms of debt, particularly in the age of high interest rates. The second is what to plan for the future about some countries not being viable anymore and some megacities not being viable anymore.

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

We now go to Ms. McPherson.

You have the final questions, with two minutes.

**Ms. Heather McPherson:** Thank you very much.

I have one quick comment I want to make. We talk about food insecurity and the need to invest in food security. I think Mr. Beasley, the past head of the World Food Programme, said it best when he said that you have the opportunity to pay now or to pay 1,000 times more down the road. It's something that I would like to reiterate.

Ms. Ackermann, I would like to ask you a question.

You spoke about the need to rebuild Ukraine. I was in Ukraine in March and I spoke to members of the government, who were very eager to rebuild. You speak about the need to rebuild in a green and sustainable way and how important that is for Ukrainians. From my perspective, it would be a mistake to rebuild using old technologies that are not forward-looking.

Could you take a moment to tell us a little bit more about that, please?

**Ms. Anna Ackermann:** Thank you for the question.

That is absolutely the case. As I said, Ukrainians want to build back better. We are already designing a system. We also have many questions about how transparent the process will be and how well it will be made. Anybody can now go to the website called [dream.gov.ua](http://dream.gov.ua), where all the reconstruction projects will be stored in one place. It's accessible to everyone, so anybody can see, at any moment, from a community launching the project until the end, what it looks like, who is implementing it and what the final result is.

The construction and building standards Ukraine has at the moment are okay. Of course, if we're building for the next generations.... This is something I was mentioning. For renewable energy, autonomous housing and so on, we don't yet have the examples to follow. We have the EU standards, which we need to implement in the coming years. It will be a big job now, of course, as Ukraine is following the path of integration into the EU. This is somewhere we need support. Think about any passive building, for example. The building does not consume energy thanks to renewables and so on, but we don't have a single example, yet, in Ukraine, of such a building.

If we want to build for the future, we need to be thinking together. We already have some great co-operation happening with some big, general plans being developed at the moment. For example, the southern region of Mykolayiv is working with Denmark on rebuilding the region and the city, which was heavily destroyed. Many public buildings were destroyed. They are rethinking the city. How do they rebuild it? How do they change the concept of what the city actually is? This is what we need, of course. Not all of the cities in Ukraine were destroyed. Many are still there. We have to be thinking about things like energy efficiency and so on.

One last thing is this: We have to be thinking about the new economy for Ukraine. This is why I mentioned the concept of the green economy, so Ukraine does not get stuck in things we have been producing already for many years or decades. It's to make sure we are moving forward. As to what that actually means, I don't

think we have the clarity yet. This is why we need to have these conversations. International partners should also be able to contribute to making sure we understand what Ukraine could be producing—for us and for the world.

The reconstruction will be a big-scale project for everyone. This is also where we can get hands-on and see how this work development could fit in this new green economy.

• (1210)

**The Chair:** I'm afraid we're out of time, Ms. Ackermann.

Thank you very much.

That concludes our first panel of witnesses.

Allow me to thank all of you for your insights, expertise and time. Let me once again apologize to Professor Wood, Professor Clapp and Ms. Ackermann for having had some challenges in the past. We're grateful that you went out of your way and made the effort to share your expertise with us today. Thank you very much.

I'll remind the members that we're going to require four or five minutes to get the second lineup of witnesses.

Thank you.

• (1210)

(Pause)

• (1215)

**The Chair:** Welcome back, everyone.

We will resume our meeting and the study of the situation at the Russia-Ukraine border and implications for peace and security.

I would like to welcome our witnesses. We're very grateful to have Mr. Trevor Kennedy, who's here with us in person. Mr. Kennedy is the vice-president of trade and international policy at the Business Council of Canada. Virtually, we're grateful to have Mr. Normand Mousseau, who is the scientific director of the Trottier Energy Institute and a professor at Université de Montréal. As well, we have Mr. Sylvain Charlebois, who is the director of the agri-food analytics lab and a professor at Dalhousie University.

You will each get five minutes for opening remarks. When you see this phone up, it means you should be wrapping up within 15 to 20 seconds.

We will start off with Mr. Kennedy.

You have five minutes.

**Mr. Trevor Kennedy (Vice-President, Trade and International Policy, Business Council of Canada):** Thank you, Mr. Chair, for this opportunity to speak to this committee about the Russian invasion of Ukraine and the implications for global peace and security.

The Business Council of Canada comprises 170 chief executives and entrepreneurs of Canada's leading enterprises. Many members lead global businesses with extensive trade and investment interests all around the world.

Following Russia's brutal invasion of Ukraine, companies quickly severed ties with Russia and have steadfastly supported Ukraine. Canadian businesses have also worked to alleviate supply chain disruptions stemming from the war. Canadian potash producers like Nutrien increased output to help our partners reduce their reliance on Russian and Belarusian suppliers. Cameco is supplying Ukraine's energy utility with nuclear fuel to safeguard its energy security and independence for years to come. These are just a few examples of many.

As the war rages on, it is important that Canada remain engaged to support Ukraine and Ukrainian businesses. We can't wait for the war to end to start rebuilding and to strengthen our economic ties. As the Ukraine ambassador to Canada, Yuliya Kovaliv, has mentioned before, Ukraine's economy is the third front in the war.

That's why the Business Council of Canada is proud to support the Canada-Ukraine Chamber of Commerce for its second "Rebuild Ukraine Business Conference", taking place this week in Toronto. Our president and CEO, Goldy Hyder, as well as other members of the business community, will participate in this important and timely conference to highlight the needs and opportunities to rebuild and modernize Ukraine's economy.

We also support the recent modernization of the Canada-Ukraine Free Trade Agreement. This agreement brings important new chapters and provisions to our bilateral trade agreement, including covering trade and services. It will also create an environment of predictability and stability for our bilateral trade and investment flows. Our Ukrainian friends and partners have been clear how important this deal is to demonstrate to Canadians that Ukraine is open for business and that businesses can have confidence in the market in the long term. We agree, and we urge parliamentarians to swiftly ratify this deal.

We've also urged Export Development Canada to put in place war risk insurance and two-year export credits to help support Canadian companies that wish to trade and invest with Ukraine. As our CEO wrote to EDC two weeks ago, credit agencies from Germany, France, Japan, the United Kingdom, Sweden, Poland and the Netherlands are all providing political and/or war risk insurance for companies in their respective countries that are investing in Ukraine. Similar programs have been put in place by the United States. Canada has promised to support Ukraine, and we agree with EDC president Mairead Lavery that EDC can play a pivotal role in supporting Ukraine's long-term reconstruction.

The conflict in Ukraine and the deteriorating global situation highlight the need for Canada to step up and play a more active role in peace and security. We welcome Canada's materiel support to Ukraine. The war also underscores the importance of the NATO alliance in safeguarding Europe and North America. Canada must, at a minimum, meet its 2% defence spending commitment. It was once commonplace across the alliance for countries to miss this target, but following this war, many NATO members have either in-

creased their spending or outlined plans to reach that level, and Canada cannot be an outlier.

The war marked a turning point in the global economy. Economic security is now a priority all across the world. Many nations less blessed with natural resources than Canada are preoccupied with securing a safe supply of energy, food and other natural resources. Many like-minded partners are looking to Canada to be that reliable and safe supplier.

In the summer of 2022, German Chancellor Olaf Scholz visited Canada and clearly stated his country's interest in Canadian energy, including LNG, as well as hydrogen and critical minerals to power its economy today and into the future. This visit was followed by South Korean President Yoon Suk Yeol's in September 2022 and Japanese Prime Minister Kishida Fumio's earlier this year. In both cases, north Pacific leaders clearly expressed their desire to enhance economic and energy security through closer economic partnerships and linkages to Canada.

Finally, when European Commission President Ursula von der Leyen visited Canada in March this year, the EU outlined how important Canada is as a partner as it pursues a reliable supply of energy and raw materials. Among other issues, leaders committed to a Canada-EU working group on energy transition and LNG to identify and advance medium-term solutions. As European leadership returns to Canada this week for the Canada-EU summit, we hope to see concrete progress toward supporting our partners and allies in Europe.

We believe that Canada has an important role to play in ensuring that Ukraine wins this war and thrives in the years ahead. Canada also has an important role to play as a stabilizing force in the world, and business leaders are eager to partner with government whenever possible to support a more peaceful and prosperous world.

Thank you.

● (1220)

**The Chair:** Thank you very much, Mr. Kennedy.

We will now go to Mr. Mousseau.

Mr. Mousseau, you have five minutes.

[*Translation*]

**Mr. Normand Mousseau (Scientific Director and Professor, Trottier Energy Institute, University of Montreal, As an Individual):** Thank you, Mr. Chair.

I'd like to thank the committee for inviting me.

Before I give my opening remarks, I'd like to make clear that my expertise is mainly in Canada's energy system. I'm not an expert in international relations or the Ukrainian or European energy system. That said, as we all know, energy systems are obviously interconnected. In that sense, I think I can contribute to the committee's study in a useful way. I should also say that I didn't get the committee's invitation until just recently, so my presentation may not be as well-thought-out as it could be.

Russia's invasion of Ukraine has had a profound impact on the global energy system. First, it created uncertainty. Then, embargoes were put in place, somewhat rebalancing fossil fuel distribution. For many countries and many regions, the situation underscored the importance of reducing their reliance on Russian fossil fuels, as well as their overall reliance on foreign energy.

At the end of the day, this crisis may not have led to a significant reduction in overall demand, but there was a reduction in the fuel produced by Russia in 2022-23. Nevertheless, a major reduction was not observed globally. Instead, the world saw a redistribution of resources. Countries that had imposed embargoes turned to new suppliers, leaving oil for countries that had not imposed embargoes and could therefore access Russian oil at a discount. Production levels remained more or less unchanged owing to the shift in costs and energy reliance relationships, if you will.

In North America, the direct impact of the crisis on the price of fuel, other than oil in the rather short term, was limited. However, it allowed North America, especially the U.S., to position itself as the world's top exporter of liquefied natural gas, or LNG. This had a transformative impact on international trade since the U.S. had not been a major player in the sector prior.

Canada, for its part, didn't really benefit from the transition. Canada actually has few LNG terminals in the works, and most of them aren't very far along. A witness said earlier that the LNG Canada project would be going ahead soon, so in about two years. Canada's situation is such that it wasn't able to take advantage of or support the transformation. The details have yet to be laid out.

Europe is in transformation. In reducing its reliance on foreign energy, Europe has accelerated its energy transition measures. The focus is shifting to more reliable countries. The European countries are turning to Morocco for solar energy and green hydrogen. The push is also on to find other sources of fossil fuels, like LNG in the U.S. Nevertheless, the European Union is still Russia's number one customer for natural gas.

Finally, access to cheaper fossil fuels in China, India and other countries that are benefiting from Russian oil could have the opposite impact that we're seeing in Europe. With cost pressures being more limited, the energy transition could potentially slow down.

How are these issues impacting Canada? LNG import infrastructure is a bit late to arrive. I think it's too late to increase the number of export locations because LNG terminals present certain challenges. We're a bit behind other countries.

As for producing and exporting green hydrogen, Canada has some agreements in place. The structural work is still at a very preliminary phase. Could Canada position itself in that market? Potentially, yes, but it's not clear whether the revenue would be worth-

while. In a landscape where everyone is trying to increase their renewable energy independence, the same supply chains are likely to come under the same pressure in these infrastructure sectors around the world. Since Canada produces relatively little renewable energy infrastructure, it will have a hard time meeting its own climate targets.

• (1225)

Europe is working to decarbonize its energy system and paying a lot to do so. That pressure will lead to Europe's carbon tax on imports being deployed sooner. Unless Canada moves quickly towards decarbonization, it could be impacted.

Thank you.

[English]

**The Chair:** Thank you very much, Monsieur Mousseau.

I'm sorry. We have just realized that the sound check for Mr. Charlebois did not work the first time around, so we're going to try once again. I would ask for your patience.

We will suspend for no more than two minutes.

• (1225)

(Pause)

• (1230)

**The Chair:** We will now resume.

[Translation]

Welcome, Mr. Charlebois.

[English]

You have five minutes for your opening remarks.

**Dr. Sylvain Charlebois (Director, Agri-Food Analytics Lab and Professor, Dalhousie University):** Thank you, Mr. Chair and honourable members of the parliamentary committee on foreign affairs and international development.

It is my privilege to present before you today as we deliberate on the significant strides our nation is making in global trade and diplomacy, particularly through the Canada-Ukraine Free Trade Agreement Implementation Act. This landmark legislation not only fortifies our international trade relationships, but also opens new avenues for Canadian agri-food industries, which are pivotal to our economy and societal well-being.

Canada's agri-food sector stands at a crucial juncture poised for transformative growth and international expansion. The implementation of this agreement with Ukraine, a nation with vast agricultural potential and complementary trade needs, presents unique opportunities for Canadian producers, processors and exporters.

In this context, I wish to put forth three key recommendations that are instrumental in maximizing the benefits of this agreement for our agri-food sector.

First, investment in agricultural technology and innovation should be prioritized. This agreement provides an avenue for Canadian agri-food businesses to assess new markets and adopt advanced agricultural technologies. Emphasizing innovation will not only enhance the productivity and sustainability of Canadian agri-food businesses, but also position Canada as a global leader in agricultural technology. We should encourage partnerships between Canadian and Ukrainian entities in research and development focusing on sustainable farming practices, climate resilience and advanced food-processing technologies.

Second, it is imperative to strengthen supply chain infrastructure. The expansion of trade with Ukraine necessitates robust and efficient supply chains. Investment in transportation infrastructure, storage facilities and digital supply chain solutions is critical. This will ensure the smooth movement of goods, reduce logistical bottlenecks and mitigate risks associated with international trade. Enhancing supply chain resilience will also prepare our agri-food sector to effectively respond to global food security challenges.

Third, I recommend the development of a comprehensive market access strategy. While the agreement opens doors, Canadian agri-food businesses need support in navigating the Ukrainian market. This strategy should include trade promotion activities, market intelligence services and guidance on regulatory compliance in Ukraine. Establishing a Canada-Ukraine agri-food business council could be a strategic step in this direction as well, fostering bilateral trade relationships and providing Canadian businesses with the insights and networks needed to succeed in the Ukrainian market.

In conclusion, the Canada-Ukraine Free Trade Agreement Implementation Act heralds a new era in our trade relations, offering significant prospects for the Canadian agri-food sector. By focusing on technological innovation, strengthening supply chain infrastructure and developing a comprehensive market access strategy, we can fully leverage the potential of this agreement, bolstering our economy and reinforcing Canada's position as a global leader in agri-food.

Thank you very much, Mr. Chair, for the opportunity to present these recommendations. I look forward to a fruitful discussion on these matters.

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

We now go to the members for questions. For the first round, each member is provided four minutes.

We start off with MP Epp.

**Mr. Dave Epp (Chatham-Kent—Leamington, CPC):** Thank you, Mr. Chair, and thank you to the witnesses for appearing today.

There are eight billion people on this planet, four billion of whom owe their lives to synthetic fertilizers producing the food they eat, so I want to start with fertilizer and Dr. Charlebois.

As I understand it, \$115 million in tariffs have been collected by Canada on Russian and Belarusian imports into Canada. Who is paying the price of that, and who is bearing the cost, particularly in

the context of Canada as a trading nation and in the context that we're the only country of the G7 imposing that tariff?

• (1235)

**Dr. Sylvain Charlebois:** Thank you very much for the question.

I assume it's a rhetorical question, because I think we all know the answer to that question. Obviously, Canadian farmers paid for that.

I believe it was unjust. I believe that money is still owed to our farmers. Penalizing farmers is certainly something we shouldn't be accepting in this country. Unfortunately, they don't have any way to get that money back unless the government helps them.

**Mr. Dave Epp:** Thank you.

When you were testifying last month at the standing ag committee, you made the following statement: "When the issue of world food security comes up, Canada is unfortunately barely part of the discussion, and that's something that has to change."

In your testimony, you stated—and I agree with you—that Canada is a global ag tech leader. We have massive amounts of export potash. We should be exporting all sorts of nitrogen fertilizer. The only macro element we're a bit short on is phosphorous.

Why are we not on the world stage for food security? I could expand this to energy security, but let's start with food security.

**Dr. Sylvain Charlebois:** Again, that's a good question.

I would say Canada is a strong innovator, but we innovate for ourselves mainly. We don't tend to think globally and we're obviously undermined by other forces around the world. We are prisoners of our own geography. We're just north of the U.S., so there's lots of noise south of us. That's why we need to be proactive and deliberate in the way we support different nations around the world, starting with Ukraine.

There is an opportunity here for Canada to play a leadership role. So far, to be honest, some of the measures have not been clear. The intent here has not been clear, and I do believe that many companies in Canada can actually play a role.

When it comes to fertilizers in particular, I do think that we need to question our strategy for exports in general. I have some reservations in terms of the Canpotex model itself. Perhaps we could do more. Instead of supply-managed production in order to keep prices higher, in 2023 going into 2024, we need a different approach.



**Mr. Dave Epp:** I heard the third call in your testimony, which was for increased infrastructure investments in Canada, both for domestic and, obviously, for our world export needs.

Give me more specifics. Our rail infrastructure heading to the east coast is limited. It's hauling crude oil as opposed to potash, which I used on my farm. I wish I could have used less Belarusian over the years and more from Saskatchewan.

Is that one example?

**Dr. Sylvain Charlebois:** It is one example.

I would say there are several issues with our food supply chain. The first and most important issue is the fact that it's not considered to be an essential service across the country. That needs to be done. We need to protect the integrity of our food supply chain.

When it comes to infrastructure, Canada is not a leader. When you travel around the world, often Canada is seen as a problem.

Let's start with ports. There was a report recently ranking 348 ports around the world. The three main ports in Canada—Halifax, Montreal and Vancouver—ranked in the lower tier. Vancouver ranked 347th out of 348 ports. Just on that, we need to recognize that more investments are required.

**Mr. Dave Epp:** Thank you, Mr. Chair.

**The Chair:** Thank you, MP Epp.

We now go to MP Zuberi.

You have four minutes.

[*Translation*]

**Mr. Sameer Zuberi (Pierrefonds—Dollard, Lib.):** Thank you, Mr. Chair.

Thank you to all the witnesses for being here.

[*English*]

I'd like to start off with Mr. Kennedy.

You made some remarks around global security, defence security and Canada's investments. Do you have any opinions about our protection of the north and how we can enhance it? What does that mean for Canada's peace and security? What sort of investments do you think would be important to have around defence of the north?

• (1240)

**Mr. Trevor Kennedy:** Thank you for the question.

Rather than focusing on what assets we need to provide security for ourselves and for our allies.... We do hear loud and clear when travelling the world and meeting with our counterparts how important Canada is. The Arctic is certainly of great interest to our partners, whether that be the United States or our partners in Europe or in the north Pacific. This is Canada's backyard. We should have capacity to be an important actor in that part of the world in supporting our allies.

We do think it's important at this time, especially as many of our peers and allies increase defence spending and make more serious commitments for the long term, that Canada do the same to provide support for our naval and air force capacity.

**Mr. Sameer Zuberi:** I'm assuming you would agree that this would enhance Canada's stature on the international stage, along with promoting peace, security and diplomacy.

**Mr. Trevor Kennedy:** Absolutely. In fact, just recently we witnessed around the world.... There are instances at times when new groupings are formed, and sometimes Canada is not necessarily involved from the outset. It's not always tied to security and defence, but that's one area where Canada can step up so we can make ourselves more helpful to our partners. I think that will lead to more invitations for Canada to play a leading role in new institutions as they're formed.

**Mr. Sameer Zuberi:** Thank you.

[*Translation*]

In your view, Mr. Mousseau, what will happen to demand for natural gas and oil in the future? Currently, demand is high, but could the world's energy needs drop in the future?

**Mr. Normand Mousseau:** Thank you for your question.

It depends. Wealthy countries have committed to reducing their greenhouse gas emissions in order to reach net-zero by 2050. In light of that, oil and gas production can't continue at today's levels. It's impossible. We won't be able to achieve our climate targets that way.

We are already seeing transformative changes around the world, and as a result, demand is softening in some cases. Production still hasn't peaked, but various trends show that global demand could drop within the next decade or so.

**Mr. Sameer Zuberi:** You can have the next 30 seconds to elaborate.

**Mr. Normand Mousseau:** I would say Canada is a bit late to the renewable LNG market.

Today, we are rushing to make investments, get projects going again and build LNG terminals we didn't build a few years ago, but it's not going to work because of the 2050 emission reduction targets. We'll have terminals in place, but they'll be operating for 15 to 20 years at most. That investment will be difficult to recoup.

[*English*]

**The Chair:** Thank you, MP Zuberi.

We now go to MP Bergeron. You have four minutes.

[*Translation*]

**Mr. Stéphane Bergeron:** Thank you, Mr. Chair.

Thank you to the witnesses for being here today. My questions are for Mr. Mousseau.

Mr. Mousseau, two of your conclusions really intrigued me. One you just talked about when you were answering Mr. Zuberi's question. The other was about the importance of positioning ourselves in a rapidly growing market.

First of all, we have to recognize that, yes, oil and gas is already an industry of the past. No doubt, that partly explains why you said it was too late. It's important to quickly embrace the transition and position ourselves in the energy sector of the future.

When you talk about producing decarbonized mobile energy, what exactly do you mean?

**Mr. Normand Mousseau:** We can produce decarbonized electricity, but the problem is how difficult it is to export that electricity. It has to be exported in liquid or gas form, such as hydrogen or ammonia. Otherwise, it has to be used to manufacture products such as aluminum and other energy-intensive goods. Manufacturing them here is a way to export our decarbonized energy. That's what I was referring to.

• (1245)

**Mr. Stéphane Bergeron:** I see.

Does the current technology allow for the production of decarbonized mobile energy, or is that precisely what you are encouraging us to explore? In other words, we should consider investing in these technologies so we can carve out a place for ourselves in the sector going forward.

**Mr. Normand Mousseau:** Considerable investment is still needed to develop the technology and establish business models for those energies. At the moment, whether those business models are going to work is rather uncertain because they have a lot of holes. The revenue generated for the producing country won't be as significant, that's for sure. The profit margins aren't comparable to those in the oil and gas sector, where costs are relatively low in relation to prices in the global marketplace.

There's a lot of assessment work to be done to figure out the right approach and the technology needed, as well as to build the infrastructure. For instance, nothing equivalent to an LNG carrier exists to transport hydrogen by sea. As far as those markets are concerned, we are already seeing a considerable need to develop the intelligence and business models. At that point, Canada could play a role in doing some of the work.

**Mr. Stéphane Bergeron:** Putting that technology in place is expensive, of course, but with a growing number of countries buying the technology, it could cause the cost to come down over time.

**Mr. Normand Mousseau:** Actually, that's not a sure thing.

The hydrogen fuel cell sector, for instance, plateaued about ten years ago now. It hasn't been possible to achieve any major advancements. The same goes for hydrogen production by electrolysis, which is really struggling.

However, we could turn to what is called blue hydrogen. Fossil fuels could be converted into hydrogen, and the carbon dioxide could be stored on site. Massive investments in that sector are being made out west.

That may be another promising avenue, but a lot of development and investment is still needed. Every month we waste is another month our competitors have to surpass us.

**Mr. Stéphane Bergeron:** Thank you.

[English]

**The Chair:** Thank you.

Now we go to MP McPherson.

You have four minutes.

**Ms. Heather McPherson:** Thank you very much, Mr. Chair.

Thank you very much for the testimony from all of our witnesses today.

I am struggling, though. My thought process here on what we're hearing from the testimony is that if we had put in place infrastructure, we would be able to provide Canadian energy to markets that require it, but we didn't. My understanding is that this is not something that we should have invested in over the last eight years but in the last 15 or 20 years. Both Conservative and Liberal administrations were not able to get the infrastructure in place that we would have required to be in a position where we could provide this Canadian energy.

Add to that the idea that we are hearing from our partners abroad. Last year at this time, I met with Chancellor Scholz, the head chancellor of Germany. They spoke about wanting our energy, but not wanting it in the long term: wanting it in a very short window of time. We just heard testimony from Ms. Ackermann, who spoke about how Ukrainians really do clearly want to rebuild in a sustainable green fashion.

Help me understand how this isn't a bit of a unicorn study, where we say, "Wouldn't it be great if we had done things differently? We didn't, but we should study why we should have." I'm struggling to find out what this is all about because, frankly, the situation we're in right now is that we need to transition. We need to for climate change. We need to because those people, those industries and those countries we're working with want us to. Not having a port that will take five or 10 years to build is bad, but the fact of the matter is that it's not going to be required the same way in five or 10 years. I don't understand the business case of that, I guess. I'm struggling with it.

Absolutely, I think it would be fantastic if we could replace Russian natural gas right now. I just don't understand what we're talking about here, I guess.

Mr. Kennedy, I'm going to ask you to see if you can clarify this for me.

• (1250)

**Mr. Trevor Kennedy:** Thank you very much.

I just returned from a trip to Japan and Korea. We had a chance to meet with many of our partners in industry and government. I'll just be very direct, in that it's not too late and there are very high expectations for Canada.

It's not just about LNG, but LNG is absolutely part of the picture. It's a case of "and". There are three things that the world is looking to Canada for, particularly when it comes to energy: LNG, critical minerals and hydrogen. All three are critically important to our partners, whether they be in the North Pacific or in Europe. In the case of LNG, I think we understand that we would be primarily exporting to the Indo-Pacific to support energy supplies for our partners in Europe, rather than directly shipping to Europe—

**Ms. Heather McPherson:** I'm sorry to interrupt, but for how long? When you say we're not out of time, how long does it take us to get the infrastructure that's available and then, in that case, how long do they want natural gas?

We've heard from the International Energy Agency that the use of fossil fuel technology is peaking in this decade.

**Mr. Trevor Kennedy:** It's a great question. Honestly, the most important point, particularly in dealing with our partners in the North Pacific, is the concept of diversification. Even if demand falls for the next 20 to 30 years, what our partners want is a safe supply from their like-minded partners like Canada. We have an advantage, through geography and also through our clean process here in Canada, to provide our resources, so if demand falls globally, there is still demand for Canadian LNG, and also other Canadian resources, so I think it's important to make that distinction.

Currently we don't export any LNG to countries like Japan. LNG Canada has critical national security importance to Japan. We heard—

**Ms. Heather McPherson:** I'm sorry to interrupt, but I have very little time.

We just heard that it would be very difficult for us to pay back the cost of building this infrastructure, and you are talking about the next 10 to 20 years. To your mind, is there a business case for investing in the infrastructure, knowing the short time frame we have in which to recoup those losses?

**Mr. Trevor Kennedy:** Absolutely. When we speak with industry, there is a business case. Every project has different economics behind it, but LNG Canada in particular is of national security interest to countries like Japan and Korea.

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

We now go to the second round. We will start off with MP Aboultaif.

You have three minutes.

**Mr. Ziad Aboultaif (Edmonton Manning, CPC):** Thank you, Chair.

The International Energy Agency forecast a peak in the global demand for coal, natural gas and oil, and the U.S. increased exports of LNG to Europe in 2022, relying on Canadian natural gas to compensate. Why is the United States increasing its LNG exports?

The question is for Professor Mousseau.

[*Translation*]

**Mr. Normand Mousseau:** Basically, the reason is that we have a lot of shale gas and we're able to produce it in large quantities. Eu-

rope took a quick look around, and the U.S. was able to meet the demand.

[*English*]

**Mr. Ziad Aboultaif:** Do you agree that Canada's increase in exports of natural gas could reduce greenhouse gas emissions? Why or why not?

[*Translation*]

**Mr. Normand Mousseau:** Actually, LNG is shipped as far as Japan. Studies by the U.S. energy agency show that the emission reductions are negligible in relation to coal.

LNG doesn't really have any environmental benefits, especially when it's derived from shale gas.

[*English*]

**Mr. Ziad Aboultaif:** Why is the U.S. compensating for the export of its LNG with Canadian natural gas, then?

[*Translation*]

**Mr. Normand Mousseau:** Because it can be bought cheap.

Canada basically has only one customer for its energy, the U.S. That means the customer decides the price and what happens in the market, not the seller.

[*English*]

**Mr. Ziad Aboultaif:** I'd like to hear Mr. Kennedy weigh in on the same question, please.

**Mr. Trevor Kennedy:** I'll just repeat my previous remarks about how we understand that there is significant interest and there is a business case. International investors have expressed their interest in investing in Canada if we have the right regulatory certainty and predictability in Canada and if there is a clear signal that such investment is welcome here.

I also want to add one other point I didn't raise about the three areas in which there's interest. There's also interest in nuclear. Canada is a source of nuclear fuel but also technology for SMRs and more conventional nuclear electricity.

● (1255)

**Mr. Ziad Aboultaif:** Professor Mousseau, you note that Canada is the only G7 country whose greenhouse gas emissions have increased since 2010, which means this is an indirect call for a reduction in Canada's export and production of energy products.

If Canada has to decrease its oil and gas production and exports to meet emissions targets, would you expect other producers to increase their production and exports in light of increasing demand nationally or internationally?

**The Chair:** I would ask that you limit your response to 20 seconds.

[*Translation*]

**Mr. Normand Mousseau:** If the rest of the world works towards its own targets, demand will drop everywhere.

Therefore, foreign partners won't step in to make up for Canada's reduced production.

[*English*]

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

We now go to MP Alghabra.

You have three minutes.

**Hon. Omar Alghabra (Mississauga Centre, Lib.):** Thank you very much, Mr. Chair.

I want to thank our witnesses for being here today.

I think it's clear that there's a consensus, at least an intellectual one, that we are in a transition period and we need to reduce emissions to combat climate change. However, with the war in Ukraine, with supply chain challenges, and with the rising cost of living, we appear to be dealing with a perceived conflict. There are those who are saying that in order to deal with all those challenges.... Their resolve to transition is weakening and they're advocating for traditional methods of production or transportation.

I'm interested in hearing from Mr. Mousseau or Mr. Charlebois and having their points of view on this issue. We have to have a fundamental discussion about tackling the challenges that we're facing today, but also on the issue of climate change and our production methods.

Mr. Mousseau, go ahead.

[*Translation*]

**Mr. Normand Mousseau:** The problem is that climate targets won't magically be met.

Meeting climate targets hinges on wanting to reduce greenhouse gas emissions. Nothing outside the country is going to bring down our emissions. It requires real will and a plan to get there.

In addition, we are subject to external unknowns that make things easier or harder, in terms of pricing and so forth. It's a political decision. If we want to meet our targets, we have to accept that sometimes things will be tougher. We also need to be flexible and responsive.

That's how we need to view the transition. We can't see it as something we experience from the outside, like the crisis in Ukraine or other tragedies that occur.

[*English*]

**Hon. Omar Alghabra:** Go ahead, Mr. Charlebois.

**Dr. Sylvain Charlebois:** It's a great question.

I just want to add to Mr. Mousseau's comments.

I agree with Mr. Mousseau. I think there needs to be some political will. Also, the way measures are communicated needs to

change. We are seeing a number of policies helping industry to decarbonize, and I think we need to decarbonize as much as possible. It is a priority for agriculture and agri-food. Climate change is the number one threat to agriculture, no doubt; however, mechanisms that are put in place would require measurable results. I'm thinking specifically about the carbon tax right now. We need measurable metrics allowing Canadians to understand why we're doing things to decarbonize the economy.

**The Chair:** Thank you.

We now go to Mr. Bergeron for a minute and a half.

[*Translation*]

**Mr. Stéphane Bergeron:** Thank you, Mr. Chair.

According to the International Energy Agency's most recent energy outlook, released in October, global demand for coal, oil and natural gas is expected to peak this decade. After the report's release, the agency's executive director, Fatih Birol, said that, with the ongoing strains and volatility in traditional energy markets currently, claims that oil and gas are safe or secure choices for the world's energy and climate future look weaker than ever.

What do you think, Mr. Mousseau?

• (1300)

**Mr. Normand Mousseau:** I'm not a climate change expert, but it's clear that we won't be able to meet our climate targets if we consume more gas, oil and coal.

**Mr. Stéphane Bergeron:** Thank you, Mr. Chair.

[*English*]

**The Chair:** We will now go for the final minute and a half to MP McPherson.

**Ms. Heather McPherson:** Thank you very much.

Again, thank you to all our witnesses.

Mr. Kennedy, you spoke about regulatory certainty, and you know we have some challenges with that in this country. We have provincial jurisdiction. We've signed on, as we should have, to things like the UNDRIP declaration.

When I look at regulatory certainty, there is one thing I want to get some clarity on. Right now, my provincial government has actually paused any investment in renewables. We've heard that about 33 million dollars' worth of investment has fled the province because of that, and multiple thousands of jobs.

Would you agree that this provides significant regulatory uncertainty in green technologies and green energy?

**Mr. Trevor Kennedy:** I'm not familiar with that specific decision, but I would say that businesses greatly value predictability and stability. That's a clear message, I think, to all jurisdictions in Canada. If you want investment, predictable, clear and reliable rules are extremely important, particularly for many international investors.

**Ms. Heather McPherson:** Thank you.

**The Chair:** Thank you very much, MP McPherson.

At this point, allow me to thank all three of our witnesses: Mr. Kennedy, Mr. Charlebois and Monsieur Mousseau. We're very grateful for your time and for your expertise.

We will be adjourning this meeting, but before I do so, I was wondering if the members have had a chance to look at the two budgets that were sent. One is a revised budget for this specific

study, since we had technical problems in hearing from a few of the witnesses. The other one is for a briefing that you have asked for in a week and a half.

Do we have unanimous consent?

**Some hon. members:** Agreed.

**The Chair:** That's excellent. Thank you.

The meeting stands adjourned.

---





Published under the authority of the Speaker of  
the House of Commons

---

### SPEAKER'S PERMISSION

---

The proceedings of the House of Commons and its committees are hereby made available to provide greater public access. The parliamentary privilege of the House of Commons to control the publication and broadcast of the proceedings of the House of Commons and its committees is nonetheless reserved. All copyrights therein are also reserved.

Reproduction of the proceedings of the House of Commons and its committees, in whole or in part and in any medium, is hereby permitted provided that the reproduction is accurate and is not presented as official. This permission does not extend to reproduction, distribution or use for commercial purpose of financial gain. Reproduction or use outside this permission or without authorization may be treated as copyright infringement in accordance with the Copyright Act. Authorization may be obtained on written application to the Office of the Speaker of the House of Commons.

Reproduction in accordance with this permission does not constitute publication under the authority of the House of Commons. The absolute privilege that applies to the proceedings of the House of Commons does not extend to these permitted reproductions. Where a reproduction includes briefs to a committee of the House of Commons, authorization for reproduction may be required from the authors in accordance with the Copyright Act.

Nothing in this permission abrogates or derogates from the privileges, powers, immunities and rights of the House of Commons and its committees. For greater certainty, this permission does not affect the prohibition against impeaching or questioning the proceedings of the House of Commons in courts or otherwise. The House of Commons retains the right and privilege to find users in contempt of Parliament if a reproduction or use is not in accordance with this permission.

---

Also available on the House of Commons website at the following address: <https://www.ourcommons.ca>

Publié en conformité de l'autorité  
du Président de la Chambre des communes

---

### PERMISSION DU PRÉSIDENT

---

Les délibérations de la Chambre des communes et de ses comités sont mises à la disposition du public pour mieux le renseigner. La Chambre conserve néanmoins son privilège parlementaire de contrôler la publication et la diffusion des délibérations et elle possède tous les droits d'auteur sur celles-ci.

Il est permis de reproduire les délibérations de la Chambre et de ses comités, en tout ou en partie, sur n'importe quel support, pourvu que la reproduction soit exacte et qu'elle ne soit pas présentée comme version officielle. Il n'est toutefois pas permis de reproduire, de distribuer ou d'utiliser les délibérations à des fins commerciales visant la réalisation d'un profit financier. Toute reproduction ou utilisation non permise ou non formellement autorisée peut être considérée comme une violation du droit d'auteur aux termes de la Loi sur le droit d'auteur. Une autorisation formelle peut être obtenue sur présentation d'une demande écrite au Bureau du Président de la Chambre des communes.

La reproduction conforme à la présente permission ne constitue pas une publication sous l'autorité de la Chambre. Le privilège absolu qui s'applique aux délibérations de la Chambre ne s'étend pas aux reproductions permises. Lorsqu'une reproduction comprend des mémoires présentés à un comité de la Chambre, il peut être nécessaire d'obtenir de leurs auteurs l'autorisation de les reproduire, conformément à la Loi sur le droit d'auteur.

La présente permission ne porte pas atteinte aux privilèges, pouvoirs, immunités et droits de la Chambre et de ses comités. Il est entendu que cette permission ne touche pas l'interdiction de contester ou de mettre en cause les délibérations de la Chambre devant les tribunaux ou autrement. La Chambre conserve le droit et le privilège de déclarer l'utilisateur coupable d'outrage au Parlement lorsque la reproduction ou l'utilisation n'est pas conforme à la présente permission.

---

Aussi disponible sur le site Web de la Chambre des communes à l'adresse suivante :  
<https://www.noscommunes.ca>