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Chair: Mr. Ken McDonald



Standing Committee on Fisheries and Oceans

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• (1300)

[English]

The Chair (Mr. Ken McDonald (Avalon, Lib.)): I call this meeting to order.

Welcome to meeting number 44 of the House of Commons Standing Committee on Fisheries and Oceans.

This meeting is taking place in a hybrid format, pursuant to the House order of June 23, 2022.

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

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

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

Please address all comments through the chair.

Finally, I'll remind you that it is not permitted to take screenshots or photos of your screen. The proceedings will be made available via the House of Commons website.

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

Pursuant to Standing Order 108(2) and the motion adopted on October 4, 2022, the committee is resuming its study on the impacts of climate change.

I would like to welcome our first panel of witnesses.

Back with us once again, representing the Maritime Fishermen's Union, is Martin Mallet, executive director, and Luc LeBlanc, fisheries advisor. We have with us as well Robert MacLeod, president of the Prince Edward Island Shellfish Association, .

Thank you for taking the time today. You will each have up to five minutes for an opening statement.

I will invite the Maritime Fishermen's Union to begin, please, for five minutes or less.

Mr. Martin Mallet (Executive Director, Maritime Fishermen's Union): Thank you, Mr. Chair, and thank you to the committee, for allowing us the opportunity to present again today on a very important file and the situation on the east coast.

My name is Martin Mallet. I'm the executive director at the MFU. I am accompanied today by my colleague, Luc LeBlanc, our fisheries advisor at the MFU.

I'll be doing my presentation in French.

[Translation]

The MFU, the Maritime Fishermen's Union, is an organization that represents over 1,300 inshore owner-operator fish harvesters in New Brunswick and Nova Scotia. Since its foundation in 1977, its mission has been to advocate for Maritime inshore fishers and their communities.

The most recent tropical storm that passed through Atlantic Canada is the second to have hit us hard in only three years. There was Dorian in 2019, and this fall there was Fiona. Climate change is no longer something to be predicted just for the future, because we have been living with it for several years now in our maritime regions on Canada's east coast.

Fiona is now recognized by experts as being one of the most intense and destructive storms in recent Canadian history. Our members in southeastern New Brunswick, the Gulf of Nova Scotia, and Cape Breton took a direct hit. Harbour infrastructure, waterways and fishing gear were all damaged to varying degrees, depending on regional circumstances and the trajectory of the storm.

I would like to share a few recommendations with you.

First, we think that DFO, the Department of Fisheries and Oceans, should invest substantially in harbour infrastructure throughout the maritime provinces and Quebec, to protect wharves and fishing vessels against increasingly frequent and progressively higher storm surges. In particular, the ability of the seawalls to stand up against this type of tide needs to be reinforced, and the height of wharves increased to prevent them being submerged during storms. Actually, the wharves in our regions that had been renovated for that purpose over the last ten years mostly survived Fiona with only minor damage.

Second, the MFU recommends adding resources to the dredging program for navigation channels leading to fishing harbours. Silting in the harbours and navigation channels is a historical problem on New Brunswick's east coast and in part of the Gulf of Nova Scotia. The sandy geology of the region means that storms like Fiona and Dorian significantly exacerbate the situation and are increasingly preventing our fishing boats from getting out to sea. In particular, the MFU deplures the lack of dragging crews that are able to respond rapidly, especially in the case of silting during the fishing season. We therefore recommend that DFO create a rapid response team dedicated to emergency dragging of harbours and navigation channels with the ultimate goal of limiting economic losses to the fishing industry, whose operating seasons are short, most of the time lasting only about two months.

Third, since fishing enterprises are losing more and more operating days at sea because of bad weather, we recommend that DFO adopt a more flexible approach when it comes to fishing season opening and closing dates. In particular, we recommend that DFO add the fishing days lost because of bad weather to the end of the season, so the season is not reduced by these increasingly frequent storms.

Fourth, we recommend that DFO's efforts in conducting operations to recover lost fishing gear continue in the long term, in collaboration with the fishery associations. There will be more big storms in the years to come, which will exacerbate the problem of lost fishing gear, and we will have to make every effort to limit the impact of that gear on marine ecosystems and species.

Fifth and last, we recommend that a financial assistance program for fishing enterprises directly affected by Fiona be created. The fishing enterprises that harvest lobster in fishery area 25 in the Northumberland Strait suffered major losses this fall, because the fishing season was underway and that area was in the direct trajectory of the storm. We think this assistance program should help cover damage or loss of fishing gear, lobster traps in that case, as well as damage to boats and lost income resulting from days and traps lost.

I will conclude here, and thank you. We will be happy to answer your questions on this subject.

• (1305)

[*English*]

The Chair: Thank you, Mr. Mallet.

We'll now go to Mr. MacLeod for five minutes or less, please.

Mr. Robert Macleod (President, Prince Edward Island Shellfish Association): Hello, everybody.

I would like to thank everybody for inviting us to this meeting and giving us a chance to speak.

Unlike the Maritime Fishermen's Union, at the Shellfish Association we don't really have wharves or any gear to get lost in a storm, but we require a lot of access roads to get down to different rivers. Our equipment is our hands, basically. In the storm, Fiona, the tide was so high that it caused a considerable amount of the island to be closed down for the shellfish fishery.

We represent soft-shell clam fishermen, quahog fishermen, who require getting into the water to harvest, because there's no equipment other than your hands. These fishers lost two weeks of their season, which represented considerable income. With the higher EI qualifications, that was a critical time of the year when they were trying to get the rest of their stamps, because it takes all year to do it. You have to fish the tides. The tide before the hurricane was off. That week after that was when the tides were on, and the waterways were closed for two weeks. It was a significant financial loss to those fishermen.

As for the oyster sector, three-quarters of the island was closed, so there were a lot of fishermen who couldn't fish. In our case, our buyer wouldn't buy because the labs weren't open to do any tests on the oysters, and he wouldn't buy until he was sure that it was safe to ship. We lost a week of income also over this.

I don't know what the recommendations would be. You can't fix Mother Nature. On our part, as far as raising wharves or anything goes, some of our access roads definitely need work. A lot of the erosion is silting over our beds. The areas have to be de-silted as a result of these storms. We suffered a lot of financial loss. A lot of fishermen were hurt badly over this.

I'd like to thank everybody again for letting us take part. I'll be open to any questions.

Thank you.

• (1310)

The Chair: Thank you, Mr. MacLeod.

We'll now go to our first round of questions with Mr. Small for six minutes or less, please.

Mr. Clifford Small (Coast of Bays—Central—Notre Dame, CPC): Thank you, Mr. Chair.

I'd like to thank the witnesses for taking part in our very important study today.

First off, Mr. Chair, my question is for Mr. Mallet.

I heard you speak about a requirement for a significant investment to reinforce existing infrastructure. It seems, based on your experience, that reinforcing that's taken place in the past has had some success. Would you like to speak a little bit more on that, please?

Mr. Martin Mallet: Thank you, Mr. Small.

I'll probably share that answer with my colleague here, Luc LeBlanc.

In the last ten years—and I'll speak for eastern New Brunswick and parts of Nova Scotia on the gulf side—we've had investment in many of our important wharves—those with anything between six and 75 boats per wharf—to raise the height of the ocean walls, the seawalls, and there's also been some work done around the internal wharf infrastructure. Among the wharves that were damaged in eastern New Brunswick, for instance, many of the wharves had minor damages. A lot of the tide levels were at a level that put most of the wharves under water for a few hours, but even with that effect, most of the equipment was saved.

However, we have some wharves that had not received any investments for a long time. Many of the smaller wharves, especially those that have been divested through the DFO small craft harbours program, have not received these types of investments over the past 10 to 20 years. Especially in areas like Cape Breton, there are many of these smaller wharves. These are an issue moving forward, because how do you help this infrastructure when it is no longer within the authority of DFO to do anything about it?

Mr. Clifford Small: How significant a portion of the wharf infrastructure would you say would be represented by the wharves that have been divested?

Mr. Martin Mallet: In eastern New Brunswick, there are maybe a few of these wharves. There are not many of them left after they were damaged in this area. The trajectory of this storm in particular was especially severe on the Nova Scotia side of things and P.E.I. In our case, we were largely saved by the fact that in the last few years most of our wharves had been invested in.

Luc, maybe you want to add.

• (1315)

Mr. Luc LeBlanc (Fisheries Advisor, Maritime Fishermen's Union): One particular piece of infrastructure that's really important is the seawall. Basically, the more robust the seawall is, the better it stops the storm surge. The storm surge is really what causes a vast majority of the damage. It's not wind. In some places—for example, in eastern New Brunswick—we have two seawalls now instead of one. They really help with the storm surge. They're costly pieces of infrastructure, but they really work. We saw an example of that during Fiona.

Mr. Clifford Small: Having one seawall outside of the other one is interesting technology. You protect the second sea wall, which inevitably protects the wharf infrastructure.

Mr. Luc LeBlanc: That's correct. The first seawall basically takes the brunt of the storm surge, and the second one is there to pick up the rest. It really works.

Mr. Clifford Small: Mr. Mallet, of the wharves in the area of the people that you represent, how many have been rebuilt or reinforced over the years, and how many remain that need to be worked on?

Mr. Martin Mallet: Luc, could you add to that question as well?

Mr. Luc LeBlanc: Particularly in southeastern New Brunswick, a vast majority of the wharves have been significantly worked on. It's less true in other areas of the Maritimes. In terms of proportion, probably 50% to 60% of the wharves have been invested in, and the others not so much. Once again, we can really see the difference between a wharf that has been invested in and one that has not.

Mr. Martin Mallet: In many cases, for the federal wharves that have not been renovated in recent years, work was done to look into what type of improvements they should be getting in the next few years. In some cases, if they've not been worked on yet, there are plans that they will get some kind of investment in the coming years. When is that going to be? I can't reply to that.

The Chair: Thank you, Mr. Small.

We'll now go to Mr. Morrissey for six minutes or less.

Mr. Robert Morrissey (Egmont, Lib.): Thank you, Chair.

Martin, I like your recommendations. One of the issues that appears to be coming up is the availability of contractors to get the work done and to get the work out the door. We're facing that in P.E.I.

Could you provide a recommendation to the committee of other methodologies or other avenues to get harbour work completed? Could we use the port authorities more to speed up the process? Could you give me your opinion on that?

Mr. Martin Mallet: That's an excellent point. We've had a meeting in the area recently with the small craft harbour director at DFO.

Mr. Robert Morrissey: My concern is that although the government has committed to putting in hundreds of millions of dollars, time is the biggest issue. That's where I want you to give us some recommendation advice.

Mr. Martin Mallet: There aren't many of these contractors. That's one thing. The other thing, in some cases, is that they don't have an existing or long-term contract.

If there is an emergency and there's no contract open or active with these contractors, they can basically say no. This has happened for us in one particular case with one of our wharves. There was a need to do some dredging right after the storm, and the particular contractor in this case said no because he had something else to do.

Luc can maybe expand on that, but that was a very stressful situation.

Mr. Robert Morrissey: Please be brief, because we're going between two departments, and I want to get to Mr. MacLeod on the shellfish fishery.

Is there a role for the port authorities in speeding up the process so that they can deliver smaller projects on behalf of DFO? Is that something you would be prepared to recommend?

Mr. Martin Mallet: I would recommend that.

The small craft harbours are generally the local fishermen leaders. They know their wharf. They know their channels. They know their area very well—better than anybody else, including myself and Luc. They know the exact things and equipment they need to do the work.

Potentially, some of these wharves could get together and get the type of equipment they need. They could get their own little group together to do this, as we're moving forward and getting these contracts together with DFO.

● (1320)

Mr. Robert Morrissey: Thank you, Martin.

I'll go to Mr. MacLeod. I'll call him Bob. I know him quite well.

Bob, the damage done to the shell fishery, especially the wild oyster fishery, is not something visible. A wharf is visible, and we can see the damage, but could you elaborate a bit more on the impact, which was significant, on the wild oyster fishers' income during that period of time? Could you give us a range for that number?

Mr. Robert Macleod: Thank you, Mr. Morrissey.

As I said, the oyster fishermen suffered financial losses. For instance, we were only in our second full week of the fall season when it happened. The previous week, a lot of fishermen had a really good week, probably four or five thousand dollars. The next week, when you couldn't sell, you had nothing. There was no income.

I was after Minister Fox here on the island, and Innovation PEI, to offset it. They gave us \$1,000, but it took three weeks for us to get it, so it was pretty tight going for us financially.

Mr. Robert Morrissey: The big impact on the wild fishery, then, was directly on the pocketbook of the fishers, because your infrastructure is, as you pointed out, your arms and hands, basically. This is unique in Atlantic Canada, because—correct me if I'm wrong, Bob—wild oyster harvesting only exists in the bays of P.E.I.

Mr. Robert Macleod: Yes, the only way to harvest wild oysters on P.E.I. is with tongs or hand rakes. It's the same with quahogs. You can only use your hands. For soft-shell clams, you can only use your hands. It's not a lot of equipment, other than your hands and body.

Mr. Robert Morrissey: What would you recommend to this committee as the principal hurt to your fishery? Was it in the loss of income?

Mr. Robert Macleod: Loss of income was the big thing, yes.

Mr. Robert Morrissey: What about the wharf infrastructure you have at Bideford, Bob?

Mr. Robert Macleod: We were pretty lucky in that. There were three mussel boats tied to it. The wharf went right under the water. I was scared that we were going to have some damage when the tide went down.

The wharf itself stayed good, but we had water come into a couple of our buildings. There were two oysters buyers in particular in the area, whose buildings went under the water right to the door-knobs. Their offices and everything were underwater, but we were pretty lucky as far as that goes. I know the growers suffered loss of cages and stuff—

Mr. Robert Morrissey: Yes, they'll be appearing. That's something else.

Thanks, Bob. Those are my only questions. You were clear on what it is.

Mr. Chair, that concludes my questions to Mr. MacLeod and Mr. Mallet.

The Chair: You did it with five seconds left.

We'll now go to Madame Desbiens for six minutes or less.

[*Translation*]

Mrs. Caroline Desbiens (Beauport—Côte-de-Beaupré—Île d'Orléans—Charlevoix, BQ): Thank you, Mr. Chair.

I would like to thank the witnesses for their comments, which are always very useful and offer us information on a host of variables.

Mr. Mallet and Mr. LeBlanc, you said earlier that the department should invest in repairing certain harbours and that the harbours that had already been renovated had suffered only minor damage from Fiona.

Have you identified the places where repairs are most urgent? In principle, they should be the places where the storms hit hardest. Have you made a list ranking them by priority for the various actions that are needed to raise the wharves that are the most affected?

Mr. Martin Mallet: I would like to mention that we have been relatively lucky, because the storm mainly struck eastern New Brunswick.

As Mr. LeBlanc said a little earlier, what causes the most damage is the storm surge. In some cases, for Fiona, the tide was so high that it almost pushed the fishing boats onto the wharves, which meant the owners, the masters, had to park their trucks on the wharf to stop the boats from landing on top of the wharves. In the future, there are certainly going to be problems associated with the height of the wharves. As Mr. LeBlanc said, adding a second seawall would make it possible to reduce the effects of the storm surge. This needs to be examined.

Fisheries and Oceans Canada, its small craft harbours program, and harbour authorities are in constant discussions to establish a list of priorities in terms of the wharves that are the most affected.

With that said, there is a shortage of workers and contractors to repair the wharves most damaged by the storm, whether in the Maritimes or Quebec, as Mr. Morrissey spoke about earlier. We are going to have to address this major problem in the coming months, because the fishing season is going to start next spring in most regions.

● (1325)

Mrs. Caroline Desbiens: Is it important to use new materials that are more resistant, more robust or more strategic? What is the state of the science and research in this area?

Mr. Martin Mallet: That isn't really part of our area of expertise and I think the engineers could give you more information about that.

I know there are new technologies relating to materials, and composites in particular. Obviously, in the case of the breakwaters, the preferred option is metamorphic rock, the big rocks you see on most wharves.

I think it would be appropriate to have a conversation with some experts.

Mrs. Caroline Desbiens: Thank you, Mr. Mallet.

Mr. Macleod, you spoke earlier about road access and silting. How do you see things happening? Do you think there is an imminent need for financial support? What needs are urgent in the short term?

[English]

Mr. Robert Macleod: On their part, I'd say that the emergency on the shore part would probably be to get some of the beds de-silted. Drag a harrow type of thing—not really a harrow—over the beds. It takes the silt and stuff off. With the erosion of the banks and stuff like that, it goes out in the water and covers the beds. It hurts spat catch for the following year and stuff like that.

We don't really know the extent of the damage to our spring beds yet, because we have to wait until the spring before we can check them out, but with the amount that's washed away from some of the banks, I'd say we have a considerable amount of silt. We should have it done. There should be something in place for the spring, probably, to give some of these beds a little help to come alive again.

[Translation]

Mrs. Caroline Desbiens: Thank you, Mr. Macleod.

Mr. Mallet, you recommended that the Department of Fisheries and Oceans adopt a more flexible approach to fishing season opening and closing dates. Is it a good idea for DFO to adopt a more dynamic type of management for various fishing sectors, based on climate change?

Mr. Martin Mallet: Yes, absolutely. In fact, that is one of our recommendations.

There is a certain degree of flexibility in this regard now. There are advisory committees that discuss the various fisheries every year. Obviously, before the fisheries open, there are discussions between the industry and the people who manage the fisheries, mainly to set the opening dates for the fisheries.

I am going to give the floor to Mr. LeBlanc, who may want to add something on this subject.

Mr. Luc LeBlanc: Elsewhere in Atlantic Canada, there are mechanisms that allow the opening of a fishery to be brought forward instead of only being able to push it back. The problem when the opening date is pushed back is that we lose fishing days, since the closing date is not also pushed back.

In principle, there is a mechanism in Nova Scotia, particularly in area 34, that allows the opening of the fishery to be brought forward by a maximum of four days, which means losing fewer fishing days. That mechanism already exists and we don't need to reinvent the wheel.

Mrs. Caroline Desbiens: Would a management plan...

• (1330)

[English]

The Chair: Thank you, Madame Desbiens. Your time is up. I'm sorry.

[Translation]

Mrs. Caroline Desbiens: I thought I still had a minute. I misunderstood your signal.

[English]

The Chair: It goes fast when you're having fun.

We now go to Ms. Zarrillo for six minutes or less. I welcome her to the committee in place of Ms. Barron today.

Ms. Bonita Zarrillo (Port Moody—Coquitlam, NDP): Thank you very much.

Thank you so much to the witnesses today. I will have some questions for Mr. LeBlanc and Mr. Mallet on infrastructure, if I have time, but I'd like to start with Mr. MacLeod.

You made some interesting comments, Mr. MacLeod, about employment insurance. I'm actually thinking about workers, their families, their homes and what happened in the community. We know that EI was born over 50 years ago. It probably wasn't thinking about climate change and the impacts on workers during climate change, and we know the frequency with which these events are happening.

Could you give us some thoughts on that? These committees can make recommendations. If there are some changes that need to be made to EI to accommodate climate change, I would love to hear your thoughts on that, and also on the impacts. How did this affect workers, their families and their homes? What happened to workers over this one?

Mr. Robert Macleod: Thank you.

Yes, the unemployment rate went up this year. The fishermen actually needed more income to qualify. With lobsters, you can make a lot of money pretty quickly, but when you're dealing with clams, quahogs and oysters, it takes a full two seasons to get enough money. You're not making the money there.

When the climate changes and you get these storms, it affects not only those areas being closed for two weeks and the fishermen but also the buyers. When the buyers are affected, they can't ship their oysters, so there are that many more oysters left in their beds. In return, they won't buy this late in the fall. Our fall season is still on, and it's on until the end of the month, but there have been buyers who quit buying two weeks ago. With that closure, they're not moving any product, so they're not going to continue buying.

You can't sell for those two weeks, and then your buyer quits two weeks early. There's a month of your season gone, and you're required to have more EI to draw on. It's a real hardship for a lot of fishermen.

On the island, with the two zones, especially in Charlottetown, it's a really bad situation there. You have the price of gas, having to travel around when you're not making a lot, but you need that income for your EI, and then your buyer quits. There was a lot of financial hardship in the shellfish fishery over Fiona for sure.

I really don't know for sure what the answer on this would be, but there have to be exceptions when something like this happens. It's not your fault as a fisherman when you lose two weeks because your area is not open, the buyer quits two weeks early and there's a month of your income gone.

I'll put it this way: With the cost of everything and with everybody trying to raise their family, it definitely was not a good situation for a lot of people.

Ms. Bonita Zarrillo: Thank you so much.

Mr. Mallet, I'll go to you on that, on the workers and the impact, because I think maybe this is a conversation we need to have around what EI needs to look like in the midst of climate change. Do you have any comments on how it affected your workers and how difficult or easy it is for them to be able to pay bills when these kinds of things happen?

Mr. Martin Mallet: I'll leave it Luc to start on that question, and then I may add to it.

Luc, do you want to go ahead?

Mr. Luc LeBlanc: It's definitely more difficult to qualify for employment insurance if there are fewer fishing days on the water, obviously. It's been difficult this year. I haven't heard of any direct problems as of now, but we're fresh off of fishing season.

In general, the comments from fishermen are that things are changing. The nature of seasons is changing. They're getting either shorter or longer, depending on the species. Definitely, we'll need to take a look at that in terms of employment insurance. It will affect people's ability to qualify for the program, obviously.

Ms. Bonita Zarrillo: I also heard something about the lab testing. I know that we have a shortage of labour all around. I guess you're also reliant on other peripheral industries, such as labs, so that's very interesting.

Mr. LeBlanc, you mentioned the storm surge and the seawalls. I'm wondering if you could tell me a little bit about how that funding was planned for and administered on the projects that are working on protecting from storm surge. It's federal programs that I guess I'm really more interested in hearing about.

• (1335)

Mr. Luc LeBlanc: These were programs that were put in place maybe seven or eight years ago. These were pretty significant investments made across Atlantic Canada.

In my neck of the woods—or my neck of the sea, I should say—there's been some pretty significant investment in wharves in southeastern New Brunswick. They've really proven to be quite effective in protecting the livelihoods of fishing communities, in the sense that a fishing vessel is somebody's livelihood. Without a fishing vessel, there's no money to be made.

We were really fortunate—I'm not going to use the word lucky—that we had virtually no damage to vessels where these investments were made. This is a long process, obviously. There's still a lot to be done. I would really like to stress the effectiveness of these investments.

Ms. Bonita Zarrillo: Was there any ROI done on the savings? You said vessels were saved. Is there any opportunity to do some ROI on that, to look at the investment made and how much it saved the communities?

Mr. Luc LeBlanc: That's a good question. I can't answer that question, to be honest. That would definitely be an interesting project.

The Chair: Thank you, Ms. Zarrillo. Your time is up.

We'll now go to Mr. Perkins for five minutes or less, please.

Mr. Rick Perkins (South Shore—St. Margarets, CPC): Thank you, Mr. Chair. Thank you, witnesses.

I was interested in some of the comments, in particular around the state of the southeast New Brunswick wharf infrastructure. My riding and the one next to it probably have more wharves per square mile than any part in Canada. It's the south shore of Nova Scotia and the western shore of Nova Scotia.

DFO estimates that it's going to take \$700 million to get them up to operational efficiency. In New Brunswick southeast, for some reason those are in a really good state of repair, at 60%. Did that happen when the minister of fisheries represented that area?

Mr. LeBlanc, would you comment?

Mr. Luc LeBlanc: I'm not sure of the exact timing. I think it might have started a little bit before that, maybe 10 years ago. That did occur since 2015, yes. It's also a long-term project.

Mr. Rick Perkins: Mr. Mallet, I've found that in my riding—I think this is true in most places—a lot of the wharf managers are volunteers. They are under a lot of pressure already from fishermen about who gets what spot and the state of the wharf. We seem to go through a lot of them. I don't envy them their job in balancing those local politics and pressures.

Now with the state of what's happened as a result of Fiona and the state of some of those wharves, are we going to have trouble finding people to continue to manage these wharves, both the small craft harbour ones and also the ones that have been devolved?

Mr. Martin Mallet: It's already an issue. We have the same volunteers on these wharf authorities as we have on our own fishing councils within the MFU and other associations.

One recommendation that I'm hearing a lot from our volunteers is that they would need extra funds, maybe from DFO, to help them with the operation of the small craft harbour port authorities. Everything is costing more these days, especially with this inflation that we have right now.

That could be one thing, moving forward, that could help us hire some people to help these port authorities do some of the legwork and not just leave it all in the hands of volunteers.

Mr. Rick Perkins: Mr. Mallet, I would like to turn to a question. After Fiona, you and I talked about the immediate short-term need at the time. At the time, we thought it was for extending the season in LFA 25, but a few days later, I think when the fishermen saw the state of the gear, that was not a viable option. You were looking for programs not only for income support but for gear replacement.

Have you seen any money on gear replacement? For that matter, have you seen any money flowing that you're aware of to repair the wharves that were damaged in P.E.I., Nova Scotia and New Brunswick?

Mr. Martin Mallet: No, there are no programs that we've seen yet that are particularly focused on helping out fishermen with this recent storm. Now we're hearing that some discussions are in progress within DFO and ACOA, for instance, and in some cases with some of the provinces, but for us, our next step is to put some time in there to see what we can get out of it and see how we can collaborate with the government to put together a program that can fit. The first step for us was to take care of most of the ghost gear that was created by the storm in LFA 25.

• (1340)

Mr. Rick Perkins: How about the timing of that, though? We have spring seasons coming up, and there's not much ability to do some of this work in the winter, whether it's the gear or the wharves. The spring season starts at various places, obviously. The one most affected, LFA 25, starts in May or June.

Can you comment about the time? What happens if none of that is in place by then?

Mr. Martin Mallet: I'll leave it to Luc answer that, because he's getting the brunt of the calls right now, actually.

Mr. Luc LeBlanc: I think that's a very good question, Mr. Perkins. Time is of the essence, because the spring season, as you mentioned, is coming, but the real particular problem is the availability of materials to build these traps. There are really serious backlogs, from what I'm hearing from fishermen. Folks are going to have to wait months to get traps that they already ordered last month, for example.

Time is indeed of the essence for sure.

Mr. Rick Perkins: What happens if that's not ready?

Mr. Luc LeBlanc: No traps, no fishing—it's that simple.

The Chair: Thank you, Mr. Perkins. You're right on the mark.

We'll now go to Mr. Cormier for five minutes or less, please.

[*Translation*]

Mr. Serge Cormier (Acadie—Bathurst, Lib.): Thank you, Mr. Chair.

Thank you to all the witnesses for being with us.

Before anything else, I want to tell Mr. Perkins that I am proud of the investments we have made in the small craft harbours. If Mr. LeBlanc had not been Minister of Fisheries, Oceans and the Canadian Coast Guard at the time, I think we would not have re-

ceived that \$400 million in additional investments for small craft harbours. We would probably also not have had the \$400 million for the fisheries or a modernized Fisheries Act that protects owner-operators.

My region has received \$75 million for wharves, but that is still not enough. The wharves in my region had been in disrepair for several years before I was elected and we are trying to rebuild them.

Mr. Mallet and Mr. LeBlanc, as you said, northern New Brunswick was a little less hard hit by the storm, but it still caused damage.

I noted in your presentation that you were talking about dragging. What makes me angry is that every year, the department's officials know very well what harbours in my region will need dragging for the opening of the fishery, but they wait until the last minute, when the fishery should be starting, to do it.

Have you observed that, and do you share those concerns with the department officials when you meet with them?

Mr. Martin Mallet: About a week after the storm this fall, we had a meeting with the regional director for the gulf about small craft harbours. We told him that our priority was to address our lack of dragging capacity. It is needed in emergencies, in addition to well before all our fisheries start, everywhere in the region.

Mr. Serge Cormier: We actually have that dragging capacity, Mr. Mallet and Mr. Leblanc, but it seems that pointless bureaucracy is what is preventing us from going ahead with certain contractors when other contractors could do the work.

Do you observe this? Do you hear it from your fishers in the various small craft harbours?

Mr. Martin Mallet: It has been proposed to us, and it is an excellent suggestion, that multi-year contracts be signed for those contractors. Instead of renewing the contracts every year or going about it piecemeal, we could sign three-year or five-year contracts with contractors who know the list of harbours they are going to be handling.

In emergencies, they would be able to do the work without having to follow a long process that takes months when we need something done in a few hours or days.

Mr. Serge Cormier: You said earlier that some wharves that were renovated in the last few years had stood up to the storms better. I can cite examples in my region, like in Caraquet or Val-Comeau or Anse-Bleue, where there was virtually no damage, but some dragging will probably be necessary.

If we had invested the money we had in certain wharves, without wanting to close certain others, the situation would be different. For example, the department may say there is a wharf 20 minutes from here and we are not going to invest in that one, and instead we are going to have the fishers move. As you know, a wharf in a small community like Pointe-Verte or Petit-Rocher is the economic engine of the region, even if there are only 15 fishers.

Do you think there should be new strategic planning done to determine how to invest the new money that is coming? Personally, I'm dreaming of a billion dollars for the small craft harbours. I hope we will get it. Do you think strategic planning is needed to solve the problem and make our wharves more resilient?

• (1345)

Mr. Martin Mallet: Yes. That was the second storm in three years. We absolutely have to review our strategy. In spite of the major investments made over the last few years, that is insufficient to deal with what is coming in the next decades. If there is a positive side to Fiona, it is that we have the proof that a properly renovated wharf can stand up.

Mr. Serge Cormier: Right.

[English]

The Chair: Thank you, Mr. Cormier.

There are only about 15 seconds left. You won't get a chance for the question, let alone an answer.

We'll now go to Madame Desbiens for two and a half minutes or less, please.

[Translation]

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

Obviously, Quebec was less affected by that storm, but the rising sea level is staring us in the face. Where I come from, for example, in L'Isle-aux-Coudres, there are times during the day when cars and ambulances or other emergency vehicles can't even get across, because the water level gets higher than the wharf and so the ferry can't load and unload the cars. So people are negatively impacted by the disorganization of the emergency services caused by climate change.

If we add in the fishery-related problems that you encounter farther away in the Gulf of St. Lawrence, in the Maritimes and in the Îles-de-la-Madeleine, it is obvious that we have to adapt to climate change. We have just come from COP27, where we heard that Canada did not put on a good showing when it came to the environment and fighting climate change.

Do you think we should simply mitigate, or do we need to launch a massive attack against investment in fossil fuels, for example? Do you think we should take strong action on both fronts?

Mr. Martin Mallet: We have to invest now in infrastructure that can stand up to the types of storms and climate we are going to see in the coming decades. It is going to cost us a lot less than waiting to find ourselves in situations with wharves and entire infrastructure facilities disappearing because of a storm. Even though these new facilities are still going to suffer minor damage during storms,

it will be cheaper to repair them than to have to replace an entire wharf.

Mrs. Caroline Desbiens: Is the fight against climate change also a factor that we cannot ignore in this future that is already at our door?

Mr. Martin Mallet: Absolutely. The two things go hand in hand. However, we are now in a situation where we no longer have any choice but to learn and start to adapt, as human beings, to the climate change that is happening now. We are living in it.

[English]

The Chair: Thank you, Madame Desbiens.

We'll now go to Ms. Zarrillo for two and a half minutes or less, please.

Ms. Bonita Zarrillo: Thank you, Mr. Chair.

I'm hearing a common theme here that an ounce of prevention might be a pound of cure. Hopefully we can get some data on that.

Mr. Mallet, you mentioned a rapid response. Is there is a rapid response protocol in place now? If not, what would an effective one need to look like?

If there is some time, I would also like to ask you to expand a little bit more on federal investment plans on wharves. What was effective in the ones you spoke of, and what could be modified or changed to be a little bit better?

Mr. Martin Mallet: I'll answer the first question by saying that there is no rapid response as of yet to the climate change crisis or any type of situation with wharves of the magnitude that we just saw.

We should, and I like Mr. Cormier's suggestion of having a strategic committee or group focused on putting together some kind of a strategy for all of eastern Canada and all of our coastlines, including the west, the Atlantic and the Arctic. We need to deal with it now. As I mentioned, if we don't, then the costs are going to be a hundredfold later on.

• (1350)

Ms. Bonita Zarrillo: On the second question, you mentioned that the federal wharf investment plans had been effective. I was wondering if you could expand a bit on that. Let us know what was effective and if there were any gaps or things that could be modified.

Mr. Martin Mallet: Luc, do you want to take that one?

Mr. Luc LeBlanc: Sure.

What was particularly effective was raising seawalls. I stress again that what really causes a lot of damage is less the wind and more the storm surge, so the idea behind protecting wharf infrastructure is beating back this storm surge. To me, the most important piece of infrastructure in a port is the seawall. Doubling them is a very good idea. Making them higher is a very good idea—thicker as well. Then, after that, raising the level of decks on wharves is a good idea because, as Madame Desbiens underlined, the water levels are rising, and if a wharf is submerged, it's practically useless.

The Chair: Thank you, Ms. Zarrillo.

We'll now go to Mr. Arnold for five minutes or less, please.

Mr. Mel Arnold (North Okanagan—Shuswap, CPC): Thank you, Mr. Chair. I'll start with Mr. Mallet.

Mr. Mallet, in your organization's dealings with the DFO, how significant is resilience of fisheries infrastructure in the DFO's actions?

Mr. Martin Mallet: That's a good question. We're not privy to the internal discussions that are being held within the DFO in terms of what types of planning they have towards this climate crisis. However, there are some conversations being held, especially between the DFO, small craft harbours and the port authorities, especially in our case, over the past 10 years, I would say.

There is some planning there, but again, I think one hurdle that we've been seeing time and time again—and it was mentioned earlier—is that millions of dollars can only go so far. We're talking billions of dollars here in investments if we really want to have an impact on all of our infrastructures that are important across Atlantic Canada and Quebec. This is just the way ahead. If we don't do it, it's just going to cost much more, or at some point we just won't have any capacity to go out fishing anymore.

Mr. Mel Arnold: I'm trying to come back to the question. Has the DFO identified resiliency as a primary objective in its wharf rebuilding or structuring program?

Mr. Martin Mallet: Again, I can't answer for sure.

Mr. Mel Arnold: It hasn't made that clear, in other words.

What level of resilience have you seen in work so far in the DFO's investments, in the millions that have been spent so far?

Mr. Martin Mallet: As we just mentioned, I think that the wharf infrastructures that have been renovated have been renovated with the idea that the sea level will be increasing and the intensity of storms will be increasing as well.

Luc mentioned earlier that the main costs of these renovations were raising the seawalls to make them higher and wider, and also increasing the height of the wharf decks.

Also, the material used for the new wharves is really important. The old wharves, especially those that were knocked out by this storm, were made out of wood pilings, and in many cases when these wood pilings are hit directly by wave action, it just breaks them up.

Mr. Mel Arnold: Thank you.

I'll switch to Mr. MacLeod now.

Mr. MacLeod, you mentioned that the testing lab was closed due to Fiona, the storm. What caused the lab to be closed?

• (1355)

Mr. Robert Macleod: We had no power. The power was out in Charlottetown there for the better part of a week, so the lab didn't really get opened until the following Monday after the storm. The CFIA didn't require any tests for some reason or other. Any other time, they would be testing everything right to the nines, but in this case, they didn't require tests. The buyer that I was selling to wouldn't buy because he didn't have his oysters tested, and when he

did get them tested the following Monday afternoon, they failed, so he couldn't ship.

Mr. Mel Arnold: Would an auxiliary power source have enabled the lab to stay open and allowed that testing to take place so that you could have moved your product?

Mr. Robert Macleod: I would think it would have. Really and truly, I'm on the side of safety. It kind of puts the whole shell fishery in jeopardy by.... They were letting product be shipped without being tested. I can't figure that out. I really can't figure out why that was done, but anyway....

Yeah, auxiliary power probably would have gotten that lab up and going. The product should have been tested. That was a pretty high tidal surge, and the water was pretty coppery-coloured. It should have been tested, but anyway....

Mr. Mel Arnold: Thank you.

Mr. Mallet or Mr. LeBlanc, I believe you mentioned an assistance program, more of a long-term program. Can you elaborate a little bit more on what you think that might look like? Would it be following the agricultural insurance programs or something along those lines?

Mr. Martin Mallet: Yes, maybe one option would be to look at the model that was used just recently with the COVID crisis, when there was some access to a loan program with part of it being forgivable as a grant.

The difficult thing here is to try to gauge the actual need per harvester. Every harvester has a different situation to address, and in some cases, such as in our case in LFA 25, where the fishery was going on during the storm, some fishermen on the eastern part of that zone had very little damage to their gear, whereas most of our fishermen on the western side of the zone were very affected.

In some cases some of the lobster traps being used were new or were just a few years in. Usually they have a five- to six-year lifespan, but with this storm, even if harvesters recuperated their equipment, the lifespan of their equipment was shortened by a few years already. Therefore, they'll have to reinvest in their equipment much sooner than was anticipated, and that was not part of their business plan, I would say.

Access to loans or access to some support like that so that they can reinvest in their businesses is very important moving forward.

The Chair: Thank you, Mr. Arnold. You'll owe me over a minute on your next round of questions.

I'll go quickly to Mr. Kelloway to finish out this round.

Mr. Mike Kelloway (Cape Breton—Canso, Lib.): Thanks, Mr. Chair, and hello to the witnesses. MP Zarrillo, thanks for joining us today.

One of the many things that you learn in a committee like this and with a vast array of expertise is that oftentimes there are common themes. We had four ministers of fisheries in the Atlantic provinces speak to the fact that we're in a climate crisis and that we need to adapt. We've heard that from fishers, fishing associations, processors and NGOs.

Some of common themes there were, number one, we're in a climate crisis; number two, they have the largest industry in Atlantic Canada that is impacted by those fisheries; and number three, we need more investment. We've given about \$1 billion since 2015 into small craft harbours. As MP Cormier said, that's not enough. We need to do better, and we also need to adapt how we do things.

With all of that in mind, there's a lot of food for thought here, and I particularly liked the conversation between Martin and MP Cormier about a strategic committee. I thought that's an interesting approach.

I want to take some time to unpack the whole concept of climate-resilient harbours. My dad, when he worked in mine rescue, would often have these bigwig engineers from Montreal come and meet with the miners to tell them how the mine was going to be run and how to have structural integrity, and oftentimes the miners would say, "Come here, buddy. I want to talk to you about how we think we can make this work." The practitioners—that is, fishers and fishing associations—know how to make things work.

When it comes to the environmental resiliency of the small craft harbour, I'm wondering, Martin, Luc, and Mr. MacLeod, if you can give us an idea of what that means to you in terms of creating resilient small craft harbours, or for that matter other coastal infrastructure, such as processing plants that are mere feet away from the ocean. What do you mean by creating environmentally resilient small craft harbours and other infrastructure? What does that mean to you and what are the steps that need to be taken, say, in the next year or two or three?

We'll start with Martin.

• (1400)

Mr. Martin Mallet: I think we need to put a strategic group together, a focus group to look at all of these angles and put them together. This is going to be a long thought and work process. We need to get not only fishermen and MPs and DFO personnel, but also engineers and climate experts, to try to give ourselves an idea of where we're going here along our shores with this climate crisis. I think that putting a long-term study group together should be number one on the list. We're in this for the long haul, so we might as well put the infrastructure together to take care of it.

Mr. Mike Kelloway: Thanks, Martin.

We will go to Luc and then to Mr. MacLeod.

Mr. Luc LeBlanc: To me, resiliency will mean fishing enterprises operating in a much more hostile environment. By environment, I obviously mean the sea. The sea is getting angrier and angrier at everybody who's on it. These new installations or these investments will have to keep track of the fact that fishermen need to operate in this increasingly more hostile environment.

I will give you a very concrete example. Wharves that are clogged with sand need to be reopened in a timely manner and really fast. To me, a resilient harbour is a harbour that can operate in an increasingly more hostile sea.

Mr. Mike Kelloway: Mr. MacLeod...?

Mr. Robert Macleod: I really don't have any answers. I know we have some of our older oyster warehouses that probably at the

time seemed to be built quite a way from the water, but with bank erosion and higher water levels now, more of those than we like to admit are getting flooded out. I don't know if they need something additional like a breakwater around them or something to protect them.

The newer warehouses are built far away from the water, but some of our biggest buyers probably have their buildings sitting in the worst spots. I really don't know what the answer would be on that. I don't know.

As Mr. Morrissey said, we do have a little harbour that we operate through the shellfish association—lobster fishermen, mussel fishermen and such. We're very fortunate that it's deep water. When Malpeque Harbour gets sanded in and there's no access, we have very deep water at our wharf. We could probably use a breakwater outside of it to really protect it against these storms. As I said, in the last one, it was under the water. The boats were higher than the wharf, but they survived. The next time, who knows? We're very fortunate to have deep water in it.

Mr. Mike Kelloway: Thank you very much.

The Chair: Thank you, Mr. Kelloway.

That concludes our first hour of testimony.

I want to say thank you to Mr. Mallet, Mr. LeBlanc and Mr. MacLeod for being here today and sharing your valuable information with the committee as we do this particular study.

We are going to suspend for a couple of minutes to switch over our panels. The meeting is suspended.

• (1400)

(Pause)

• (1405)

The Chair: We will call the meeting to order again, as we have everything done to be ready for the second panel.

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

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

For interpretation for those on Zoom, you have the choice at the bottom of your screen of either floor, English or French. For those in the room, you can use the earpiece and select the desired channel. All comments should be addressed to the chair.

I would now like to welcome our witnesses. Representing the Fisheries Council of Canada and here in person is Paul Lansbergen, president. He, of course, is no stranger to FOPO. Representing Sogelco International Incorporated, we have Richard Ablett, vice-president and chief science director.

Thank you for taking the time to appear today. You each have five minutes for an opening statement.

We will begin with Mr. Lansbergen, please, for five minutes or less.

Mr. Paul Lansbergen (President, Fisheries Council of Canada): Thank you, Mr. Chair.

Thanks to the committee for the invitation to appear. It's a great pleasure to be back here in person for the first time in this Parliament.

As many of you know, the Fisheries Council of Canada is the national trade association representing processors across the country. All of them also harvest.

For the topic of the study today, I'd like to say that I have personally worked on climate change policies for three different sectors over the last 20-plus years, to varying degrees at times, and I have looked at mitigation, adaptation and resiliency-directed policies through them. I am pleased that you're conducting this study. It's a big topic, and every little bit helps.

To give context on how hurricane Fiona affected my members, I should first describe a bit of where they operate and how.

My members operate processing plants at wharves, and their harvesting is largely done, though not exclusively, using frozen-at-sea vessels. If the plants receive harvests from frozen-at-sea vessels, the wharves are largely privately owned and are correspondingly large and on deep water. For the plants that rely on smaller vessels and/or independent harvesters, the wharves can be much more vulnerable to extreme weather events, as you've heard from other witnesses.

I'd like to report that my members were graciously only indirectly affected by Fiona. My heart goes out to all those who were much more directly affected. I can only imagine how devastating it can be to have your homes, your businesses or, worse, your loved ones lost because of Fiona.

However, there will be knock-on effects through the supply chain, because harvesting capacity is diminished. This means that processors won't have the same level of product to supply their customers and they could lose shelf space, which is always difficult to get back.

Earlier this week, you heard from Oceans North. While I may not always agree with Dr. Fuller, I would like to say that in her opening remarks, she gave an accurate characterization of the challenges we face with climate change.

With your indulgence, I have some brief comments on broader climate change through the lenses of mitigation, adaptation and resiliency. After that, I welcome your questions.

In terms of mitigation, actions that can be taken across the sector and the coasts will be differentiated based on the circumstances inside and outside our sector. For example, electrification is an effective option for the inshore fleet, but not necessarily for the offshore fleet. Hydrogen might be a more appropriate alternative fuel for offshore vessels.

Within my membership, companies have largely picked the low-hanging fruit, which are the actions that conserve energy and cut costs. The more transformative actions are slower in coming because they require more collaboration and involve considerably more risk and a lot more money. However, the Ocean Supercluster

and other efforts are advancing new technologies, such as replacing doors on trawl nets. This could improve fuel efficiency upward of 30%, because it drastically reduces the drag on the vessel.

For adaptation, we are experiencing climate change impacts already on the oceans and our fish resources, and these impacts will only get more pronounced in the decades to come.

DFO has been working with the FAO and allied jurisdictions to better understand these climate impacts on our oceans and the corresponding adaptation strategies. I applaud that collaborative approach. A lot of this relates to how DFO manages our fish resources and the broader ocean ecosystem, but it also includes regulations that govern our sector.

I look forward to ongoing dialogue on these complex issues. A good example is how the fisheries science and management decisions that follow will incorporate climate impacts. It will be paramount to engage the sector as this is done, so that we can understand and buy into it.

Thinking more broadly than just DFO, a national adaptation strategy was released yesterday. I am glad that it is there, but I have to say that its development lacked meaningful engagement with the ocean sector, and particularly the fisheries sector. In fact, with all the attention to the blue economy and oceans, one could have expected that the ocean would have been its own theme in the strategy. Instead, it was mostly implicit, not explicit, across the five themes.

• (1410)

Quite frankly, I was quite disappointed in the process and the draft strategy. I'm still reviewing the final version, but from a quick scan, I didn't see a whole lot that had changed in how oceans or fisheries are considered.

In terms of resiliency, true resiliency is all-encompassing and includes the sector's assets, community infrastructure and, in fact, the global supply chain. You've heard considerable testimony from others on this.

We, individually and collectively, need to consider how and where we build infrastructure. For example, our building codes, our engineering standards for where and how we work and live, need to better incorporate resiliency.

Thank you. I look forward to your questions.

The Chair: Thank you.

We'll now go to Mr. Ablett for five minutes or less, please.

Dr. Richard Ablett (Vice-President and Chief Science Director, Sogelco International Incorporated): Good afternoon, Mr. Chairman and honourable members of the committee.

My name is Richard Ablett. I represent Sogelco International, a seafood processing and marketing company operating in Montreal, or based in Montreal, and owning and operating two factory units in the Maritimes.

One is in New Brunswick, as Bolero Shellfish Processing in Saint-Simon, a factory operating on the basis of traditional lobster and sea cucumber processing products. A second plant, where I'm based today, is in Summerside, Prince Edward Island. That's Summerside Seafood Supreme. Our plant is involved with the production of specialty products, including a range of chilled, pasteurized seafood ready meals. They're marketed throughout North America as mass retail products. Together these two plants operate on a year-round basis, with about 280 employees. Sogelco has sales in the range of \$50 million to \$60 million. It's a family-owned business. It's been in business for 46 years.

Today what we're trying to do is provide a perspective for consideration by the committee from the viewpoint as downstream, value-addition secondary processors. We operate at the end of the value chain within the P.E.I. seafood sector, and with an emerging threat of market loss.

Over the last few days I've been listening to the deliberations of the committee. I see a lot of direction towards the primary end of things, the requirements for rebuilding infrastructure. Our company is very much at the end of the chain, in a sense, as an ingredient purchaser in the aquaculture sector in P.E.I., specifically with mussels. Live mussels constitute the basis of a range of our products. If you just look behind me, you see, as an example, "mussels in garlic butter" types of products, with a high content of Prince Edward Island cultured mussel. These are selling across Canada and into the United States, effectively through the Costco chain and Walmart marketing outlets. Walmart and Costco are major customers for our products. Our sales are growing.

The interesting feature of the product base coming from this factory is that they are pasteurized, chilled products—never frozen. This allows us to produce and market a product into specialty niches inside these mass retail chains without the competition from frozen product. Our plant is able to make 20,000 units a day.

Behind all of that, we recognize that hurricane Fiona has had a massive impact on infrastructure and the primary resource of fishery and aquaculture based in Prince Edward Island and the region. Obviously, recovery assistance is needed for what we call the front end of the value chain.

Summerside, our plant here, represents a real-time example of an unforeseen impact of the hurricane at the downstream end. I'm sure that many other secondary processors in the region will have similar problems. We try to bring this to your perspective as an example.

This particular factory in Summerside has a long-term supply arrangement with Prince Edward Island north shore mussel growers and processors, specifically with Prince Edward Aqua Farms, one of three of the larger operators in P.E.I. It's been in place for 12 years, with an understood supply chain that's been uninterrupted and can provide mussels to the plant of a high-quality nature and meet our specifications. In the last year we purchased 1.1 million

pounds of mussels from our supplier. We're scheduled to move up to 1.7 million this year on the basis of expanding sales for the products you see behind me, but also for three new products that will be introduced in the 2023 season. Not to get into it, but these would be additional mussel retail products—mussels arrabiata, Thai curry and a seafood boil product.

What I want to try to do is tell you what our emerging dilemma is, as an example, and then try to say what might be provided as some kind of mitigation approach.

Currently the plant is challenged with a reducing supply of up to 500,000 pounds of mussels due to losses in the resource space behind us, so dropping from 1.1 million pounds down to 700,000 is really sitting in front of the company right now. Obviously, the supplier needs to look after its own resources and its own customers, primarily as a live-market supplier. Mussels are moved out across North America, as you know, and something like 80% of the Canadian supply comes from Prince Edward Island.

• (1415)

This reduction to our processing operation can result in a problem with our firm's capacity to meet the customer agreements that were set last summer with mass retailers on pricing and availability. This is really an issue that can significantly impact the business, and we're probably [*Technical difficulty—Editor*] on launching new products if the supply to the operation is actually reduced.

Suppliers raised their price to the factory here due to the impacts of Fiona, and the need for cleanup costs.

For clarity—

• (1420)

[*Translation*]

Mrs. Caroline Desbiens: Mr. Chair, a point of order.

[*English*]

The Chair: I'm sorry, Mr. Ablett.

[*Translation*]

Mrs. Caroline Desbiens: We are being told that the sound is cutting out and it's interfering with the interpretation.

[*English*]

The Chair: Your five minutes are up anyway.

Could you move your boom up halfway between your upper lip and your nose?

Dr. Richard Ablett: Is that worse now? Is that better?

The Chair: It sounds better now, but I'll go to Mr. Lansbergen for his opening statement, because we're going over the five-minute mark.

He's already made his statement. I'm sorry.

We'll go to Mr. Bragdon for a round of questions for six minutes or less.

Mr. Richard Bragdon (Tobique—Mactaquac, CPC): Thank you, Mr. Chair, and it was such good testimony that I'm sure it's okay to hear it a second time.

Thank you to our witnesses who are here today for taking the time and sharing valuable insights about the effect that hurricane Fiona and its aftermath has had on your respective sectors.

We've heard a lot from the witnesses so far. They've made it very clear regarding the absolute need and urgency around adaptation and making sure we have resiliency of infrastructure in place to handle and deal with the ever-changing climate that we're facing. Everyone we've heard from has emphasized that.

I want to get your individual perspectives as to whether you feel there has been an adequate response and an urgency to the response thus far from the government in relation to making sure we get the infrastructure back up to where it needs to be. It needs to be at resilient levels in time for the coming seasons to adequately support our fishing sector and those at all points in the cycle, whether on the water, on the processing side or on the storage capacity side. It should also include those in marketing, sharing around the world the good-quality fruits of the sea that we produce here in our region.

I would like to get both your perspectives.

I'll start with you, Mr. Lansbergen, and then move to Mr. Ablett.

Mr. Paul Lansbergen: Thank you, Mr. Bragdon. That's a very good question.

Because I don't represent the harvesters who are on all the wharves, and certainly the ones who were directly impacted by Fiona, I'm not really in a position to say too much about that, but every little bit helps, for sure.

The adequacy of the government response will be dependent on how much can be covered by private insurance that harvesters hold. You heard from the witnesses earlier this afternoon that the bigger problem will be whether there's the capacity to rebuild everything that was lost. That will be the bigger challenge for the immediate time frame.

Mr. Richard Bragdon: Thank you.

Go ahead, Mr. Ablett.

Dr. Richard Ablett: There is obviously effort under way, Mr. Bragdon, to improve the infrastructure and put it in place, but again, time is an issue here. Winter is coming in Prince Edward Island, and it looks unlikely to me that some of the wharf reconstruction will be done on time.

There's \$300 million that has been identified in the hurricane recovery fund. I understand something like \$100 million might be directed toward the wharf infrastructure issues and some of the hardware replacement. Obviously, that's a good first move, but there are still decisions to be made to allocate some of the other monies into areas that need to be supporting the front end, if you like, of the processing, harvesting and handling chain.

Yes, things are under way, but time is going to be very tight.

Mr. Richard Bragdon: Yes, we're hearing that as well, Mr. Ablett and Mr. Lansbergen.

I want to go back to Mr. Lansbergen on this question as it relates to the development of a capital asset management plan that was to be put in place. I believe it came out of a recommendation in a report from 2019 from the House of Commons Standing Committee on Fisheries and Oceans. I'm wondering what kind of progress has been made on that.

Do you see that the plan is adequate, or should it be revised and updated to take into consideration the ever-changing factors on the ground that we're seeing?

• (1425)

Mr. Paul Lansbergen: I'm afraid I'm at a bit of a loss, because I'm not familiar with that strategy or plan.

Mr. Richard Bragdon: Okay.

I don't know if Mr. Ablett would have any familiarity with it.

He's saying no. Okay.

It's one of the ones that there has been a lot of talk about. It's to make sure that we have sustainable small craft harbours and make sure that we have good infrastructure in place going forward.

I think this has been the repeated message. We hear a lot about climate urgency and we hear some promises, but it seems like the response so far has been inadequate and not enough to meet the urgency of the moment or especially the need to get our infrastructure in place, as well as the equipment the harvesters need to do what they do best, which is get out there and harvest the fruits of the sea that we love to see harvested. It's bringing that urgency to the table that's going to matter the most.

I think we've heard and we can gather from this that there's a lot of talk around taxation as it relates to climate change. I think we need a whole lot more talk around adaptation and resiliency of infrastructure and making sure the immediate investment is put where it needs to be to get things to market on time and get these harvesters back on the water.

Thank you for your time today.

Is that all my time, Mr. Chair?

The Chair: You have about 20 seconds left, which is not much time get in a question or a comment.

I'll move on now to—

Mr. Paul Lansbergen: Mr. Chair, may I take those 20 seconds?

I think the most important thing to think about, as Ms. Zarrillo said earlier, is that an ounce of prevention is worth a pound of cure. I think that investing in adaptation proactively rather than reactively would be very valuable.

The Chair: Thank you for that.

We'll now go to Mr. Hardie for six minutes or less, please.

Mr. Ken Hardie (Fleetwood—Port Kells, Lib.): Thank you, Mr. Chair.

Welcome to our witnesses.

Mr. Lansbergen, I'm really curious about your comment that the facilities that were owned and operated by your members did very well. Were they just lucky, or did something take place that made them more resilient?

Mr. Paul Lansbergen: They weren't in the path of the storm. There may have been some processors that were damaged by the storm, but they weren't within our membership. In response to Fiona, things were very quiet in terms of my members calling me and discussing what the impact was on them directly.

Mr. Ken Hardie: In terms of insuring against these kinds of incidents, are your members able to get adequate insurance coverage? If so, what has the price been like over the last few years?

Mr. Paul Lansbergen: Yes, the insurance costs for business insurance and marine insurance to insure vessels and also the processing plants and all that are of great concern to our members. The price has been going up; premiums have been going up. There have been ever-increasing exclusions in the coverages.

This was before the pandemic and before climate change. The underwriters have even started to some degree to back away from the sector, so that makes it constantly challenging. As we look forward decades into the future, this is only going to be more of a problem. How we address it is a good question.

Mr. Ken Hardie: Generally speaking, if you can offer an opinion on this, for those who have suffered losses who may have had insurance, what would you think the deductibles would be, or how much of the loss would be covered by an insurance policy, leaving a gap that people would look to government to fill?

Mr. Paul Lansbergen: That's a good question. I'm not privy to the specifics of the individual policies of members. They just generally complain about the premiums and the deductibles.

I think there's probably a good question to be had on some comparables between the fishery sector and aquaculture and agriculture on land. They have insurance programs and business risk programs with these extreme events of the type we've seen with Fiona.

There's a discussion that needs to be had around a role for government to play in providing similar assurance for the fishery sector or seafood sector.

• (1430)

Mr. Ken Hardie: I'll turn now to Mr. Ablett. I'm going to assume from your accent that you might be familiar with Europe. Having had a chance to visit a number of small fishing communities along the north shore of Scotland, I know that the North Sea can be particularly wicked, and yet those very old harbours seem to stand up very well.

Do you have any opinion or any thoughts as to why that's the case versus what we've experienced here?

Dr. Richard Ablett: I feel that the whole world is now being challenged by climate change. You see impacts here in the Atlantic region similar to what would be experienced, I think, over in Europe as well. [*Technical difficulty—Editor*] impacting situations like Prince Edward Island or the coast of Scotland or wherever. It's not going to go away.

We can reduce the amount of CO2 by taking SUVs off the road, but we cannot really change the irrevocable pathway that is now under way for the rise in sea levels and the storm surges that are coming with it.

I live on the north shore of Prince Edward Island. I can tell you that I've never seen anything like this last storm. It's a quantal event, relatively, and it's catastrophic.

The next one is coming next year, potentially, so we in the seafood industry have to be on the mark and on the ball to know what we're going to do into the future, and that's—

Mr. Ken Hardie: Thank you for that.

I'm going back to you, Mr. Lansbergen.

There are well over a thousand small craft harbours in Atlantic Canada, and a good chunk of them are there for the fishing fleet.

Does our experience now, and particularly the cost involved in having to repair quite a large number of them, start to speak to the need to rationalize the number of these ports?

Mr. Paul Lansbergen: I noted you had that discussion with the previous witnesses earlier this afternoon. I think they gave a very good response to that question.

Mr. Ken Hardie: What was that, in your view?

Mr. Paul Lansbergen: They thought that perhaps there was value in having that discussion. I think I would be stretching beyond my mandate if I gave an answer on behalf of the independent harvesters.

Mr. Ken Hardie: All right. Thank you.

The Chair: Thank you, Mr. Hardie.

We will now go to Madame Desbiens for six minutes or less, please.

[*Translation*]

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

Once again, thank you to all our witnesses.

Mr. Lansbergen, I thought your idea of imagining or implementing a plan similar to the one that supports farmers was very interesting. I have proposed that perspective several times in this committee.

How do you see structured assistance looking in fisheries, assistance that could be adapted, a bit like AgriRecovery and AgriInvest and all the assistance that starts with "Agri" that is available to farmers and agricultural products processors?

As was suggested in Mr. Cormier's plan, we could have financial predictability that could then keep the fisheries in Canada and Quebec competitive.

Mr. Paul Lansbergen: Thank you for your question. My French is not very good, so I'm going to answer in English.

[*English*]

It's a good question.

I haven't looked too closely at the agriculture programs, because I felt like they were an apples-and-oranges comparison to the wild capture fishery. Having looked at it in preparation for this appearance, I think there may be some more relevant aspects to the insurance programs that they have, which, even if they aren't exactly the same, may still be very helpful in the seafood sector.

I think the market impact.... The loss of income, whether it be for harvesters or processors.... The capacity can't be replaced immediately. You've heard the challenges of the delay in getting dredging, rebuilding the harbours and replacing the vessels.

I'd have to have a deeper look at it to see what that means, but I think there is some possibility there.

• (1435)

[Translation]

Mrs. Caroline Desbiens: Earlier, Mr. Mallet and Mr. Cormier had a very interesting discussion. They were talking about a plan, and I used the word "foreseeability". They were discussing a long-term plan, or at least a medium-term plan, to address the labour shortage and the shortage of contractors, or the insecurity relating to rebuilding these wharves. It would involve adopting a three- or four-year plan for contractors to use that would identify the wharves to be rebuilt as the priority.

You talked a lot about upstream and downstream. Ultimately, would you see results in this for you as well, since the entire supply would be more secure? That process would provide some security.

Do you think so?

[English]

Mr. Paul Lansbergen: We do, without a doubt. We're always looking at things strategically and trying to have a plan in place, because without a plan, the plan is to fail.

One thing that comes to mind in the immediate term on the off-shore harvesting side is that if there is a loss of a vessel, whether it be through a sinking at sea or an unplanned breakdown, there are opportunities for companies to have other companies harvest for them. I don't know if something similar exists in the inshore fleet, such that now that a number of harbours are not operational and vessels have been lost, others can still help to harvest the products so there's some income coming in. I don't know how that happens on the inshore and whether that would help.

[Translation]

Mrs. Caroline Desbiens: In any event, everything relating to improvements in the chain can only have a positive effect for you. There is predictability and the assurance that infrastructure will be maintained and rebuilding will be done, all of which provides you with security and more stability.

[English]

Mr. Paul Lansbergen: Yes, definitely. For processors that rely on independent harvesters for the raw material, that would definitely benefit them, for sure.

[Translation]

Mrs. Caroline Desbiens: Thank you.

[English]

The Chair: Thank you.

We'll now go to Ms. Zarrillo for six minutes or less. Go ahead, please.

Ms. Bonita Zarrillo: Thank you, Mr. Chair.

I'm going to start my questions with Mr. Lansbergen.

I appreciate the little bit of a shift of the lens this afternoon with this second set of witnesses. I want to talk specifically about food security. There was some mention of downstream. It doesn't get more downstream than whoever's eating it.

Mr. Lansbergen, we did hear some testimony today about testing, and we know that it can be very dangerous to have product that hasn't been tested. That was in my mind when I was thinking about these questions.

On the food security front, are there some safeguards that should be recommended in light of what happens with climate change and the lack of maybe power generators for refrigeration?

What infrastructure is needed to protect the supply chain? We heard a little bit about roads and washouts.

On the safe consumption of goods, what are the kinds of things we can do to make sure that we plan for food security? We are relying on these goods for consumption.

Mr. Paul Lansbergen: Thank you for that.

Our products are in the cold supply chain, so they have to be refrigerated or frozen. For that cold storage, they need to have backup power to maintain the product. If it's frozen, then, yes, for a certain period of time they can be without power, but if it's fresh, live, then there's a much narrower bandwidth of thresholds that need to be met.

In terms of testing and things like that, the labs would need to have backup power so they wouldn't lose their capacity.

How often do we expect to lose power for a week in such vast areas? Maybe our expectations and backup plans need to change because of that.

• (1440)

Ms. Bonita Zarrillo: Thank you very much.

I want to revisit the mention you made of some missing pockets of engagement around the national adaptation strategy. I actually printed that out today to come to committee with, because it is important to have this wider conversation about what an investment needs to look like.

We haven't talked today about indigenous lands and indigenous communities. I'm wondering if there has been meaningful consultation with indigenous communities in relation to this national adaptation strategy that you saw within the report.

What are your thoughts about that?

Mr. Paul Lansbergen: From my vantage point, the level of engagement with the fishing sector as a whole, whether it be indigenous operators or non-indigenous operators, was left wanting.

I think that given the importance of oceans to Canada—we have the largest coastline in the world—we have significant commitments to managing our ocean ecosystem and fish resources, yet there wasn't that much attention to the strategy. Maybe it's too high-level.

DFO has certainly been working on it in terms of impacts we can expect in the decades to come for the ocean ecosystem and the impact on fish resources. We've already seen mammals and fish changing their migrating patterns and behaviour. That's going to continue.

How does that impact our management and licensing of the resource?

Ms. Bonita Zarrillo: I agree with you on it. It would be nice to see oceans planned separately.

The last question is just on employment insurance and loss of income. It was mentioned in some of the testimony today.

Do you have anything to share about how EI could potentially be there for workers in the fishery industry to protect them in the face of climate change?

Mr. Paul Lansbergen: I don't think we've really looked at using EI to help in this respect. I think you heard from the witnesses earlier this afternoon about how they're out of luck if they have not been able to work long enough to qualify. Then the question is whether you give them some sort of exemption because of the circumstance. I don't know. That's a broader question that I think government needs to have.

Ms. Bonita Zarrillo: Do I have any time left?

The Chair: You have one minute.

Ms. Bonita Zarrillo: Okay, I'm going to ask our second witness, then.

You spoke of line extensions—the extension of your business and contracts with retailers.

My question is this: Are there discussions happening among business about how there will be business interruptions with climate change? Are plan Bs happening for something like a line extension? You mentioned a few of them today.

Are there conversations happening in industry that you can share with us?

Dr. Richard Ablett: Thank you for the question.

I feel that there's not enough attention addressed to the idea of the impacts of Fiona on downstream marketing. There's a lot of attention, obviously, paid to infrastructure rebuilding, but the entire value chain obviously consists of primary resources going through to products that go to the end consumer. Marketing positioning and trying to maintain brand and sales are obviously issues that are going to evolve with time as these climate change impacts increase.

In the particular case of our company, we're threatened right now. We may be able to manage our way through it, but definitely a lot more attention is needed in order to understand what's going on once you leave and get into the export market and mass retail situation and try to maintain your supply chain. There's no mercy with the mass retailer buyers when you can't supply them.

In the case of, let's say, the mussel industry or the oyster industry, it's two to four years to reinstate the biomass that can feed through to maintain these export products to the consumer.

• (1445)

Ms. Bonita Zarrillo: I'm sorry. I'm just going to cut you off because I'm going to lose my time.

What came up earlier was maybe being able to do—

The Chair: Your time has gone way over. I'm sorry.

Ms. Bonita Zarrillo: Thank you.

The Chair: We'll go to Mr. Small now—while he's adjusting his tight button there on his jacket—for five minutes or less.

Don't be holding your breath so long.

Mr. Clifford Small: Thank you, Mr. Chair.

Thank you to the witnesses.

I have several questions to ask, so I'll appreciate fairly quick responses.

Mr. Lansbergen, I've heard there's one master underwriter in the marine industry, which is Lloyd's of London. What happens if they deem that there's too much risk due to worsening storms and what-not and they decide to pull away from the fishing industry?

Mr. Paul Lansbergen: It would certainly be a challenge. There are other resellers and insurance brokers that the companies use now, so not everything is entirely with Lloyd's of London, but it is certainly a big player.

Options that may or may not be that effective could be self-insurance and getting together as a group to provide insurance.

It's very complex. I know it has happened in other sectors, but with our sector being so diverse, that would be a huge challenge.

Mr. Clifford Small: Thank you.

The government is using climate change as an excuse to expand MPAs, and new maps are out in areas in Atlantic Canada, B.C. and the north. Are these new areas going to impact your members' ability to harvest?

Mr. Paul Lansbergen: Yes.

Voices: Oh, oh!

Mr. Paul Lansbergen: Did you want a longer answer? You told me to keep them short.

Mr. Clifford Small: You can have a few seconds.

Mr. Paul Lansbergen: Yes, definitely: We have to go from 14% to 30% by 2030 in eight short years or seven short years. We ask for a lot of engagement with the sector throughout the process so that we know how we're going to be impacted and know what the conservation or the protection objective is, and the threats and the vulnerabilities, and so we know how maybe we can innovate and address those without having a closure, for example. Engagement would be part of the solution.

Mr. Clifford Small: We see the effects of climate change when it's right in front of our eyes. A warming ocean means shifting migration patterns among fish stocks.

What's your knowledge of the steps that DFO is taking, if any, in its science program to keep up with this shifting in the ecosystem?

Mr. Paul Lansbergen: That's a good question, and it's one that I've been preoccupied with in terms of adaptation.

As I mentioned in my opening remarks, DFO has been working with the FAO and allied jurisdictions to commission studies. The FAO has a thick tome of a study from I think 2018-2019 that was looking at climate impacts around the world and adaptation strategies. DFO has also looked closer to home for our coast.

The challenge will be when they start incorporating that into the stock assessments for individual fish stocks and how they communicate that to the fishers and harvesters that prosecute that fishery.

Mr. Clifford Small: Would you say that what we saw in the closure of the mackerel fishery this year is an example of science not keeping up? What have you heard about the plentifulness of mackerel in Atlantic Canada?

Mr. Paul Lansbergen: Well, I think there's always a challenge in what the harvesters see on the water and what the catch rates are versus what the scientific models say. On that one, there's a real debate on which one is more accurate. We just need to continue having a dialogue on that to make sure that future decisions are as well-informed as possible.

• (1450)

Mr. Clifford Small: Innovation funding programs are set to expire in the next year or two. These have helped the industry invest in clean technologies. Do you think these programs should be extended to help the industry better adapt?

Mr. Paul Lansbergen: Yes. In fact, that's one of our requests for the pre-budget consultations, not only for climate mitigation but just for innovation in general. We have a lot of opportunity in terms of growth. To achieve that growth, it's going to be by value, and that means investments in emerging technologies.

I think there's a legitimate role for government to help share the risk of that, whether it be through something like the Atlantic fisheries fund or the fisheries and aquaculture clean technology adoption program, because I think the broader adoption is going to be more of an issue than for the first movers.

The Chair: Thank you, Mr. Small. You're a little bit over. I'll make note of that and take it back next time.

We'll now go to Mr. Morrissey for five minutes or less, please.

Mr. Robert Morrissey: Thank you, Chair.

This study is to look at the impact of climate change and directly the damage created by hurricane Fiona. As I indicated to an earlier panel, some of the damage is easy to quantify and easy to see, but I want to go to Dr. Ablett.

P.E.I. has an international reputation in blue mussels. I believe we're the dominant supplier of the market. It took years to create that market and sustain it. Am I correct in understanding that some 70% of that current crop wiped out?

Dr. Richard Ablett: It's in that magnitude, certainly, yes. The number that I have is 28 million dollars' worth of product. The three big processors lost most of it.

Mr. Robert Morrissey: The other part we don't see, as well, is the seed available for the crops. How does that impact the supply in the next couple of years, Dr. Ablett?

Dr. Richard Ablett: That's a worrying thing.

Again, what I'm being told is that it will take two to three years to try to put the biomass space back in place, so this is going to take time. It's real, and it hasn't really hit us yet, because obviously the hurricane occurred in September. That would be when the seed is positioned in its most delicate format. If it gets wiped out or beaten up essentially—as it has been in the hurricane—we're going to see the impact of that next summer, next fall and the following year, because there's a two-year grow-out cycle before you can harvest the mussels.

Mr. Robert Morrissey: Again, if P.E.I. mussels are out of the marketplace, what does that do to our brand reputation in the marketplace? I want you to expand or opine on the ability, as we rebuild the stock, to be able to market it.

Dr. Richard Ablett: I think that's a very good point.

This is the threat that worries everybody: the whole idea that you lose your Prince Edward Island authenticity and the provenance of the product in the North American market. This is what concerns, obviously, our company.

It could be devastating, because if the supply chain really is broken and cannot be met, the quality will also be down on what is being sent to the market as well. We're in poor shape, potentially, as this rolls forward over the next two years.

The live market sales are impacted, as well as the processing products.

Mr. Robert Morrissey: What would be the cost to P.E.I.? Could you expand on how it will impact your company? It took years to build these specialty brands, and the benefactor is the blue mussel fishery of Prince Edward Island.

Dr. Richard Ablett: I can't actually answer the total value, but I can speak about our company as an example. If we are reduced in our supply chain this year, the impact is around \$4 million in lost sales and revenue associated just with not being able to achieve the usual number of mussels that we're consuming.

With the launch of new products on top, that actually doubles because we're projecting something like a loss of \$8 million in revenue for our particular company. We would take something like 5% of the inventory supply from our supplier, which would sell most of its mussels in the live market. It's on a multi-million-dollar scale, no question, and it's obviously concerning for the future. However, it's going to take two or three years to reinstate.

• (1455)

Mr. Robert Morrissey: What do you recommend to the committee? The committee is analyzing this to identify costs in the various sectors. Our government has announced several funds. One is \$300 million through ACOA to assist the industry in recovering or adapting to the damage from Fiona.

What would you recommend to the committee as some programming that would allow the industry to adapt to this and be there when the industry recovers from the hurricane?

Dr. Richard Ablett: I feel there's a need for what I would call a market loss or risk mitigation program specifically. Try to be very focused on the concepts that obviously people are losing market position and suffering brand damage, and that there are issues there from the processors to maintain and preserve their businesses during the recovery period.

This could run as a two-year to three-year program, essentially providing support to the industry and maybe representing about 10% or 15% of what is being allocated for the total recovery fund. It's not the main part, but it's one part, an important area. It's end-of-chain assistance, if you like, for market preservation and the maintenance of companies that have been damaged by the unfortunate loss of their raw material.

This might be a two-year renewable-type program, run through ACOA, in my mind, and not so much the DFO. The DFO is more on the infrastructure support end of it, but ACOA understands the downstream requirements, so it's essential to the maintenance of the value chain from raw material supply to finished goods and market distribution. That kind of program could be quite well defined, and I'm sure there would be a lot of uptake on it or requirement for it.

Mr. Robert Morrissey: Chair, how much time do I have left?

The Chair: None.

Mr. Robert Morrissey: Thank you.

The Chair: You have actually gone over about 40-odd seconds, but it was a nice try to even ask. I give you credit for that.

Mr. Robert Morrissey: I thought Madam Zarrillo would give me her time, but she didn't need.

The Chair: Well, actually she doesn't have any to give you, Bobby. We're at the end of it, because it would be unfair to go to another two and a half minutes of questions and not get to the last two and a half. There is only about a minute and a half left of committee time as we have it now.

I'll say a huge thank you to our witnesses for this particular session. Mr. Ablett and Mr. Lansbergen, thank you for coming today and sharing your valuable knowledge with the committee as we try to get through this particular study and get a report done for the House of Commons.

Again, thank you to everyone.

I will remind everyone that our next meeting on Tuesday will be our fourth and final meeting for the study of the impacts of the climate crisis.

With that, the meeting is adjourned.

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