

THE BROOKINGS INSTITUTION

NATURAL RESOURCE DEVELOPMENT IN GREENLAND:
AN ALAN AND JANE BATKIN INTERNATIONAL LEADERS FORUM
WITH GREENLAND'S PREMIER ALEQA HAMMOND

Washington, D.C.

Wednesday, September 24, 2014

PARTICIPANTS:

Introduction:

STROBE TALBOTT
President
The Brookings Institution

Keynote Speaker:

ALEQA HAMMOND
Premier of Greenland

Moderator:

JONATHAN POLLACK
Senior Fellow, Foreign Policy
John L. Thornton China Center, Center for East Asia Policy Studies
The Brookings Institution

Panelists:

CHARLES EBINGER
Senior Fellow and Director, Energy Security Initiative
The Brookings Institution

KEVIN FOLEY
Doctoral Student in Government
Cornell University

MINIK ROSING
Professor of Geology, University of Copenhagen Chairman
University of Greenland

ANDERSON COURT REPORTING
706 Duke Street, Suite 100
Alexandria, VA 22314
Phone (703) 519-7180 Fax (703) 519-7190

P R O C E E D I N G S

MR. TALBOTT: Good afternoon, everybody. I'm Strobe Talbott and it is my pleasure and honor to thank all of you for coming out this afternoon to hear from Premier Aleqa Hammond of Greenland.

As I mentioned to the Premier a couple of minutes ago as we were waiting to come in here, she is out of the madness of New York City. She's been up at the United Nations General Assembly, as I have, as well, and Washington seems so sedate after all that's going on up there.

But she was doing important work. She was attending the first review conference for the Declaration of the Rights of Indigenous Peoples and she was also taking part in the Climate Summit, which is very pertinent, of course, to what she'll be talking about here today.

She came to the office of Premier last year, but she's no stranger to public life. Formerly, she was the Minister for Families and Justice and the Minister of Finance and Foreign Affairs. She is here today as part of a program that we've been conducting over the last several months called the Jane and Alan Batkin International Leaders Forum. And we're very honored that you would be part of this new tradition at Brookings.

The Premier is going to talk to us about climate change and natural resource development. Both of these issues are obviously crucial to her people's future and, I might say, to ours. And when I say "ours," I mean all of us on the globe.

Climate change, in particular, is a major research priority of the work being done here at Brookings, and it's also the subject of a new report by our Energy Security Initiative and our China Center, both of which are represented with our

colleagues here in the front row today. It is part of Brookings' ongoing work to contribute to the understanding of the increasing importance, economic importance, I would say geopolitical importance, and, of course, environmental importance of the Arctic. And if any of you would like to learn more about what we are doing in those areas, please take a look at our new blog, Planet Policy.

After the Premier's opening remarks, we will go to your questions and a panel discussion will follow.

Once upon a time, I used to always introduce our speakers by asking everybody in the room to please turn off their cell phones, Madam Premier, but now, of course, we want them to leave their cell phones on in silent mode so that they can Tweet what you have to say. (Laughter) And the hashtag is #Greenland.

So, Madam Premier, thank you for honoring us with your presence here today and we look forward to hearing from you. (Applause)

PREMIER HAMMOND: It's good to be in Washington, D.C. I always love coming back here. Thank you for this wonderful welcoming. Thank you, President, Mr. Talbott, for those kind words of introduction.

Let me first thank Brookings for the initiative and for the launch of this report on Greenland and natural resource extraction in Greenland. We very much value the contribution to the ongoing discussions about natural resources as these new sectors will have a significant impact on economic development in Greenland and in the rest of the Arctic, for that matter.

There has been an increasing focus on the rest of the international community on the Arctic and its natural resources in particular. There are several reasons for that.

With a projected global population increase, as well as significant increase in the needs for various consumer goods, there's logically also an increased global demand for resources, including those we are endowed with in my country. We are focused on developing our natural resources for a simple reason: to develop our society and improve the living conditions for the people of Greenland.

As political leaders, it is our most important goal to improve living conditions for the people of Greenland by creating jobs, continuing to improve healthcare, education, social services, and housing, et cetera. Natural resource extraction is, therefore, not the goal in itself, but a way of achieving those goals. It is about having the people of Greenland take responsibility and being responsible for affairs that affect us directly.

With the Self-Government Act of 2009, adopted by both Danish and Greenlandic parliaments, the people of Greenland gained an even more extended form of autonomy than the previous arrangements that dates back to 1979. The present constitutional setup of the kingdom of Denmark is a very particular one, in many respects a unique one and it can sometimes be difficult to understand for an American audience. With the Self-Government Act, we are able to take over almost all areas of competence from the Danish state, except foreign policy, defense and security, and monetary issues. From 1979, we have gradually taken over most areas of importance to everyday life for citizens in Greenland.

In 2010, Greenland took over the sole competence for oil, gas, and mineral resources, which had had a longstanding wish and continuous issue during the negotiations leading up to the adoption of the Self-Government Act. Greenland represents externally itself in all areas over which it has taken over sole competence from

the Danish state. This is important to us not only for reasons of symbolism and pride, it is recognition of the unique relationship with Denmark and Greenland have developed over centuries of coexistence which is probably unique to any relationship today between a former colonial power and its colony.

Our relations with third countries are important for us and this is more and more the case. Later today, I'm proud to be opening Greenland's diplomatic representation to the U.S. Greenland's representation to the U.S. will be Greenland's second diplomatic representation in addition to our existing representation to the European Union in Brussels.

In order to achieve economic diversification of the Greenlandic economy, Greenland needs to work with other countries in order to attract investments, promote exports, market Greenland as a tourist destination, and, in all ways possible, make Greenland -- make government available for dialogue with other countries, not as a foreign policy actor, but as the government responsible for all these areas.

Fisheries still account for more than 90 percent of our export. And with that in mind, we have been working hard to develop our natural resource sector in the last 20 years, together with Denmark. And now we are beginning to see the advanced stages of that work where we have issued a number of exploration and exploitation licenses to offshore oil, as well as minerals.

I think it is important to underline that the political path we have established is something both Greenland and Denmark have agreed upon and it will take many years to achieve the goals of economic self-reliance and taking over new responsibilities. We are a frontier mineral and oil nation. Frontier investors who are used to investing in other continents around the world find that Greenland is nothing like any of

those places.

Because of our common 300-year history within the kingdom of Denmark, Greenland has developed a society, institutions, and legal framework similar to that of its Nordic neighbors. We are a nation that is based on the rule of law and it is imperative to stress that our democratic institutions and legal framework are strong. The people of Greenland are very eager to see these new sectors being developed as we all share the goal of developing our economy and furthering the political process in the long term.

Greenland is a frontier nation when it comes to minerals and oil exploration. But we have worked hard to develop the natural resource extraction sector. And Greenland continually ranks high in terms of how we perform to attract companies to invest in exploring in Greenland. Last year, we were ranked 23rd out of 112 mining jurisdictions surveyed by the Canadian Fraser Institute, and Greenland won the award for being the best country to do mining in, in 2013, 2014 in London, at Europe's largest conference for mining investors and finance – "Mines and Money".

Current investor interest in Greenland comes, for the most part, from Canadian Australian-based companies, which are also the two leading mining countries in the world, with some interest from Chinese financial institutions. Interest from Europe and the U.S. is negligible in the minerals sector, but when it comes to the offshore oil sector, we have a number of the largest U.S. oil companies who have licenses.

It is the mining sector that shows most potential in the foreseeable future. We believe that there is a realistic prospect of having three to five mines operating within five years. That is our established goal. We have a number of projects that are in advanced stages. For example, the iron ore project close to Nuuk that we have approved

of and which is working to raise investments. This could take a couple of years to raise a large sum since this is a large-scale project.

We have rare earths, where Greenland possesses two of the largest known deposits in the world outside China, and one of them have entered into a Memorandum of Understanding with a Chinese company on processing and distribution. And after a public consultation process, that project can possibly be approved in a few years.

We are progressing well in our discussions with Denmark on the uranium issue, and we expect to sign a political agreement later this fall. We continue to have a rewarding and constructive relationship with Denmark on issues we need to resolve, especially with regard to the uranium issue.

There's a project on zinc and lead in the northern part of East Greenland. It's also evolving, which will be one of the 10 largest zinc mines in the world and where we expect to receive an application within a year.

A ruby and sapphire mine has just secured the necessary investment and is ready to go ahead now. It is a smaller mine, but important for the local economy and to continue to develop a necessary expertise in the mining sector.

A mineral project called White Mountain is also in the process of submitting an exploitation license and could commence construction work as soon as 2015 on a mineral called anorthosite, which is used in the production of fiberglass. This is also a relatively small project, but has enough raw materials for more than 100 years production.

A total of more than 150 exploration licenses have been granted in the mining sector as of today. That is nearly 10 times as much activity compared to 10 years

ago, which is something that we are proud of. But it is also necessary to generate and award a large number of exploration licenses since only a small number materialize.

We would very much like to see more U.S. engagement and involvement in Greenland and the possibilities that exist. We have been actively promoting both our mineral and oil and gas sector in the U.S. and Canada for a number of years through the largest fairs in the last many years. We are also actively promoting to develop our relations by opening up our representation here in Washington, D.C.

We value our relations with the U.S. as a partner, as the U.S. has a very important role to play and contribution to make in ensuring a sustainable development in the Arctic Region. The U.S. has considerable expertise, ability, and resources, if you want, to be a major player in the Arctic, not the least because of Alaska.

This is also the case with the country we share the border with, Canada, which is one of the big mining countries in the world. This summer, I met both with the Canadian Minister for Environment Leona Aglukkaq, who is also the chair of the Arctic Council, as well as the Canadian Foreign Minister John Baird, about increased cooperation on mining and infrastructure investment issues when it comes to shipping and air transportation, increased worker mobility issues between our two countries. Neighboring countries usually share the same issues and challenges, and we can easily find ways to enhance development in the Arctic.

The newly established Arctic Economic Forum shows that there is promise for enhanced cooperation within the Arctic countries themselves. It will take time to mature, but we can all benefit through increased inter-Arctic cooperation on economic issues. We're also looking further into the future by focusing on developing the oil and gas prospects, both offshore as well as onshore. This is still in an exploratory stage.

Since 2002, we have awarded over 20 exploration and exploitation license blocks offshore to 14 different oil companies, including to some of the largest American oil companies. There continues to be great interest in the prospects we have. Last year, we had a licensing round off the East Coast, where we ended up awarding four blocks to three consortiums consisting, among others, of Statoil, ConocoPhillips, British Petrol, Chevron, and Shell.

The government of Greenland has just released oil and gas licensing rounds for 2014, 2018, in two events in London and Houston earlier this month, for both offshore as well as onshore areas, with significant interest from the oil and gas companies. We will, in the coming years, open up new areas of different consecutive stages, both inshore at Jameson Land in East Greenland and Disko Island and in the Nuussuaq Peninsula, as well as offshore in Davis Strait, Baffin Bay, and Southwest Greenland.

Cairn, a Scottish oil company, which had a number of exploratory drillings in 2010 and 2011, will decide next year whether to conduct another exploratory drilling in the Baffin Bay. They are actively looking for another partner for this particular project as it is a costly process to conduct these drillings.

I should also mention that there continues to be extensive seismic activities in different license areas, and we are aware that things take time. We continue to be optimistic on the prospects we have.

Let me address the environment issues. A unique natural environment and extreme conditions that the people always had endured characterize Greenland and the Arctic. There are no other people who are more aware and concerned about this as we pursue mining and oil activities. We are the ones who will be affected directly, if, god

forbid, a disaster happen in our environment.

We do not see this issue as a choice between environment and industrial development, but rather to incorporate and make environment and industrial role development work together. It is a challenge to operate in this kind of environment, but new technology, standard and practices, continue to improve so we don't have to repeat past mistakes in earlier centuries.

We have adopted some of the strictest environmental standards and regulations, where we especially have looked at and taken inspiration from Norway and other countries when it comes to oil spill prevention, safety, and preparedness. We carefully select who are awarded oil and gas licenses and to make sure that they have the ability, size, and experience in operating in Arctic environments.

Like in all matters, be it social issues or human health, prevention is the key, and that is especially true in the Arctic. We will continue to make sure use of best available technologies and other practices when it comes to environmental standards.

I think it is important to stress that international cooperation is also imperative on these issues. There continues to be major focus on environmental issues among the Arctic Council stakeholders. We need collectively to do so much more; to deal with risks that new activities and pressures the Arctic pose, in particular regarding maritime safety, mapping, oil spill prevention, preparedness, and surveillance, which are necessary for effective oil spill and search-and-rescue activities. And other international actors are also taking this issue seriously, like the International Maritime Organization and the mandatory Polar Code.

We take our responsibility towards the environment seriously.

Greenland or the Arctic is not a place you can venture into a get-rich-quickly, as this

report also states. I wish it was. It takes a long-term commitment and it is not for the fainthearted when you deal with this part of the world.

We are a small population in a big landmass and, therefore, logically, we do not have multilane highways up and down a 2,000 kilometer coastline. So infrastructure is limited and, therefore, has to be constructed, especially where the minerals are located. This is also one of the challenges that add to the cost of development of some of these projects.

This is not a Greenlandic isolated issue, but which is true in most of the Arctic. It is an area of the world where that is not exactly conducive to low-cost operations. So we are seeking long-term strategic interests from a wide variety of countries, be it in Europe, Asia, or here in U.S. As this report correctly observes, there has been a lot of hype in the media about Greenland and our resources. Chinese interests and myths have been created. It is not that we don't want that attention. On the contrary, we are actively promoting to develop our natural resources.

But there's also a lot of unfamiliarity with Greenland. I am, therefore, appreciative that this report will contribute for a wide range of audiences to educate themselves on the issues we are dealing with today. We need to demystify Arctic. This happens to be the title of a report that the World Economic Forum has published. Together with an international group of policymakers under the World Economic Forum, I have promoted the idea of creating an Arctic regional investment vehicle for sustainable development.

Securing Arctic investments overall is challenging, not only for Greenland, particularly for large institutional investors, such as pension funds and sovereign wealth funds. There are often constraints. For example, they may only be

able to invest in parallel with commercial banks or multilateral development banks. The resulting lack of Arctic investment could be overcome by establishing a cross-border financing institution. Such an institution's mandate could be to finance projects around the Arctic Region, including cross-border infrastructure investments. Such dedicated Arctic funds could help mobilize private equity and close cooperation with institutions such as the European Bank for reconstruction and development, the International Finance Corporation, or the Nordic Investment Bank.

I think it is initiatives such as this that would be necessary in order to ensure and secure a long-term role, also for North America, in an Arctic economy based increasingly on its own resources. Investors nowadays, especially in the United States, often have an environmental profile and a focus on sustainability in terms of social development that matches our needs and sensitivities.

The Greenland Gold Rush is the title of the report. There was a Yukon gold rush at the end of 1800s, and we all know how that ended. I don't hope the title of this report will be the same as to what happened in Alaska over 100 years ago. I think we have become more sophisticated since -- in many years -- I mean, since many ways.

Development in Greenland should ultimately continue to be given and driven by the needs and aspirations of the people of Greenland. Anything other than that would be wrong. Culture is a living thing and continues to evolve. That is the same for all people, including Greenland. We have survived 300 years of colonization. We have survived rapid modernization. And it is a culture that will also endure the transformation of our economy from one based only on living resources towards a more broad-based economic foundation that includes living resources, oil and mineral resources, where we will see Greenland gradually entering a global world economy in a wider variety.

But at the heart of the Inuit culture is the preservation and long-term protection of living resources on which life in the Arctic always has depended on. These living resources are key to the identity of the people of Greenland.

Thank you for your attention and I'm ready to respond to whatever questions you might have. And thank you or *qujanaq* as we say in Greenland.

(Applause)

MR. EBINGER: Well, thank you, Premier Hammond, for some very interesting remarks. Unfortunately, you took most of the remarks I'm going to make when it's my turn, but I think you've laid out a very ambitious view of the future of Greenland as you and your political allies see it. And I think Greenland will undoubtedly have a bright future.

We have about 8 or 10 minutes for the Premier's comments, so I'm not going to exercise any power from the chair to ask anything. We'll go straight to the floor, but please identify yourself before you ask your question and please have a question.

(Laughter)

Right here. We have microphones coming.

SPEAKER: (audio malfunction 29:04-30:10) that's not to say (audio malfunction 30:11-30:23) stuff. But my question is these mining companies are very large, they like to do things their way, at least that's my experience in the United States. And sometimes they don't -- they're not easily regulated, let's put it that way. It takes inspectors, it takes visits to their offices, and it takes -- so the first question is, how do you feel about your capacity, the human capacity in your government to exercise regulations in what could be a tough environment?

The second is from my perspective as an admirer of the Greenlandic

people and your experiment and your effort to move towards independence. And that question is: do you have a workforce strategy through which you hope to involve more Greenlanders in mining activities as these activities develop over time? And if so, I'd love to hear you talk about it.

MR. EBINGER: Thank you, Brooks.

PREMIER HAMMOND: Yes, thank you very much for your words and I think it's very interesting questions.

Regulating activity in Greenland. Regulating is very important to us. First of all, it's a new prospect in Greenland policy. And we did not have rights to our own non-living resources until 2009. And we first took the jurisdiction from the Danish state on 1st January 2010. And that naturally changes our agenda, naturally changes our opportunities for economic prosperity for the people, that we have another choice of income besides our already now economy that's based on more or less one strength, that's based on fisheries. And it's important that we have several choices of income in a country anywhere.

And naturally, it's important for us, my government finds it important, that the prosperity in Greenland to grow has to be based on what the country can give to its own people, and changing it to economy and jobs is our duty. And there are two things that are very important to us and we're very proud of: is that we have the law of minerals in Greenland, which is a law that we are very proud of and has had consensus adoption in the Parliament. And then we also have the law on landscape projects in Greenland. These two things go hand-in-hand. And these two things are very important for Greenland to ensure that mining in Greenland has very strict frameworks to work under, and that Greenland has one of the best (inaudible) of minerals in Greenland, which is the

guarantee for Greenlanders to ensure that the priorities and principles and values that we share and value are being followed.

And, of course, when a nation is moving towards a new income and moving towards an area where multinational companies, as you were saying and referring to, that they're doing more or less what they like, it's important that that's not the term that Greenland wants it to be in Greenland. Greenland cannot be compared to that many other places around the world. Greenland has another geography, has other circumstances, and not very easy to deal with as I was referring to in my speech. Infrastructure's not even there. So in order to get the permission in Greenland, we had a very strict set of guidelines that need to be fulfilled. Otherwise, negotiations do not begin.

This is something that we hang on to and this is something that's of great importance to us. A population of only 56,000 and has this potential of economic prosperity in the country is important with regulations that are guidelines in our requirements to be followed, and that's the safeguard we have, most of it.

And the workforce? We do not have the workforce. We only have 56,000 people. And if we are to -- and that's including the people that are not born in Greenland. And if we are to have the three or five mines within the coming few years, Greenland will be not only lacking workforce, first of all, for those that need work, a job, will be put to a job and given job opportunities.

But besides that, Greenland will have to have workforce coming to Greenland. It will have an immense impact on our understanding of what labor is. It will have an impact on our economy. It will also certainly have an impact on our traditions, our culture, our language, our priorities, and our views to being a global economy and global citizens. It will have great importance to our life and this is also to be very

important in our minds as decision-makers, that this is also being accepted and found okay amongst the majority of the population.

The priorities that we are setting are not priorities we are setting because now we have a new self-rule act, now let's do something about it. The urge to this lies within our own demographical challenge. My mother's generation, there were many children, many siblings. In my generation, we only 1.8 child per family. When I go to pension, I'm going to be the biggest economical challenge for the next generation if I don't make changes today for a better economy and stronger economy to ensure that Greenland is a nice country to live in, that you don't have to move out of Greenland to get a better life. It's our duty to ensure that we find new sources of income and options and possibilities for our own people.

MR. EBINGER: Over --

SPEAKER: Hi. My name is Doddem. I studied at the Institute (inaudible) a long, long time ago. And among the things that we looked at was there was guy named Renk, who studied about the hunter societies and how things were organized. And my question is I've seen YouTube videos of meetings in local societies where people stand up and say what they think about mineral development. And I'm just wondering if that is continuing and if you would talk about how the Greenlandic government is reaching out to the local communities and giving them a chance to speak about what they think about natural resources development.

PREMIER HAMMOND: Very good question. As we went to the referendum whether we should get the self-rule act or not, one of the biggest topics that we discussed back then during the campaign was the right to our own mineral resources. For ourselves to set our own priorities was of great importance to people. That was the

main topic that we were discussing.

I probably was one of the few politicians that traveled most. I was away from home for two months fighting for the self-rule act to be adopted by most people as possible. I found that most areas this was topic number one. It means a lot to people that what we call for our own country for thousands of years finally will be on paper to be our own jurisdiction was important. It means to people not only because of the economy, because that's what we are, that we have a feeling of our own country that is ours. Now it's going to be ours, and even the language was to be the official language of Greenland. Even though we have spoken Greenlandic and lived in Greenland for the last 4,500 years, this was the first time it was announced as the official language and the only official language of Greenland. These two things mattered a lot to the people and this was the main topic.

So, yeah, as we were saying yes on to the referendum, people wanted our mineral resources to be an important part of our life in the future. When I've said that, during the last elections to the Parliament, mineral resources were also again topic number one. My party was standing up and more or less screaming about that it's important that we get the royalties, a very important part in our mineral strategy. My party was the only one screaming about it whereas the other parties were saying in all respects -- I'm just not making it up, you can look it up; make it clear -- that that would scare the investors away.

I think that it's important that we have a realistic approach to what we want as a people, why we want exploitation. Why we are having a minerals and oil and gas strategy in Greenland? Because we're not doing it to please investors. We are there to ensure jobs and prosperity for its people. And this is not going to be the main core in

everything we are doing, even though we're spending and lot of time and then emphasizing and endorsing it a lot. This is going to be one of the most important areas in our source of economy.

And the local people stand by wanting new jobs. They're standing there wanting better housing. They're standing there wanting better schools, better healthcare, and better pensions for our elders. And that is not coming from -- going away from our sustainable hunting and fishing. That is not going to come from paying off from somewhere, cut down some other places. It's not possible. Status quo is not an option. We have to have new income in Greenland. And ensuring that we get a new income requires that you have a policy that is long-term important, but also, at the same time, short-term important that we ensure that our population is also being educated that they can be a main workforce in this sense.

MR. EBINGER: Here in the middle. Ian?

MR. BUTTERFIELD: You talked about the major expansion you wanted to see in extraction industries.

MR. EBINGER: Can you identify yourself, please?

MR. BUTTERFIELD: Oh, sorry. Ian Butterfield, Base Government Relations. You mentioned the expansion of the extraction industries. Typically those industries require vast amounts of power and processing, if you want to get in the value-added chain requires even more. Can you give us some indication as to how you think these new industries are going to be powered while Greenland addresses its climate change obligation?

PREMIER HAMMOND: Thank you for the question. Greenland did not have its own hydropower 10 years ago, approximately 10 years ago. Within one decade,

now we have five hydropower plants. Greenland today is self-sufficient in clean energy -- 70 percent -- and that is coming from a society that really do mean business about clean energy and becoming less dependent on fossil fuels. And that is reducing the living costs in an area where our living costs are higher than any ordinary place around the world. That part is very important to ensure a better economy for our families in Greenland.

And clean energy, Greenland was part of the Kyoto Protocol and also has found it very important that we follow up on this initiative that we have had with hydropower. Greenland finds the future mineral extraction should be, where it's possible, always be based on renewable energy. Due to climate change, our lakes are great and due to climate change our rivers are great. And due to climate change and our obligation to be part of the world effort to reduce CO2 emissions, Greenland finds important that the future extraction of Greenland [sic] should be, when it's possible, always be based on renewable energy. And if that's not to be the case where they cannot have a hydropower plant connected to the extraction, then Greenland is within its own law of minerals securing that the highest possible technological materials and devices, so to speak, has to be used at all times to ensure that any possible, so to speak, unnecessary pollution should not take place.

MR. EBINGER: We have time for a couple more questions. Here on the aisle.

PREMIER HAMMOND: I'm fine. I'm following you.

MR. SHOWSTACK: Yes, hello, Randy Showstack. I'm a reporter with EOS. It's the newspaper of the American Geophysical Union, and I have two questions.

One relates to you mentioned earlier that fisheries account for about 90 percent of your export trade still. And at the same time, there are great efforts to develop

offshore oil and mineral exploration. So I'd like you to speak for a moment, if you could, about how these two activities might go together and what kind of conflicts there might be. For instance, whether there's seismic testing or the potential for oil spills and how that might affect fisheries.

And the other question I'd like you to speak to is perhaps if you can talk about Greenland's perspective on climate change, where, on the one hand, it obviously is having a major impact on the country and elsewhere around the globe and, on the other hand, it's opening up potential development possibilities for the country.

PREMIER HAMMOND: Thank you very much for a very important question. It's true, 90 percent of our exports is based on fisheries. And our fisheries will be always important. We still want strong fisheries also during the time where we have mineral extraction. We will have fisheries also after the mines have closed down. These two things have to go hand-in-hand.

That Greenland finds mineral extraction important doesn't mean that it has to be (inaudible) with our fisheries, that we're giving our fisheries less than we do today. On the contrary, mineral extraction should be one more option for a better economy. And it should also be a nation that finds our environment and our fisheries important. That should be reflected in our policy on minerals.

Let's look at Norway. Norway is a very good example of how to do things right. Norway has always been of great inspiration to us in our policymaking regarding mineral extraction. It's possible to be an oil nation or a mineral nation, also, at the same time, be a great fishing nation, at the same time still be a great tourism destination. These three things is a good example of how to do things right. And this is best practice that we have seen and Norway is a county that we look very much on. And

we'll see more cooperation between Greenland and Norway in how to do things right, in how to do things as good as possible.

Too, at all times, that that income source should not be any let's say disturbance to the other. It's important that these three things go hand-in-hand. And that requires strong leadership to ensure that non-living resources and living resources income is to be balanced as good as possible. And when other countries can do it, even countries that we buy -- political legislation-wise, see very much alike as Norway, as Nordic countries, and Norway and Greenland have more talks with each other than we ever did before regarding this matter. And with Norway's expertise and showing how we can do things, I think that this is an inevitable way that we see that this kind of policy is possible.

And another thing, due to climate change, in our history of 4,500 years as (inaudible) culture that I'm descendent of, we have been going through rough times and good times with regards to climate. And we have always been living on existence minimum. We never became really, really that many because we have to regulate each other very strictly in order to survive as a society in the Arctic. We are living in a country where maintenance of life has always been one of the hardest places on Earth, and that requires, also, that the changes we are seeing within the climate change now are very severe.

Many of the hunters and fishermen have a difficulty in maintaining a good, solid, and strong economy based on the circumstances they are living on for today, and that's a fact and that's a reality. Many of the hunters and fishermen had to give up their profession because the source of income has become so unstable. And for them to hunt has not been as it is before. Maintaining life and the challenges they're facing does

not simply go up in a good economy in the house. That has resulted in the hunters and fishermen had to go down, part of the year, go down to the Social Services and ask for social welfare, and that's a fact and we feel that in our economy. The municipal budgets are really, really having a hard time, and that's our headache and that's something we have to take to us as the leaders of the country.

Seeing that families are having a more poor and poor economy in the houses requires that we do what we can to ensure that our economy's stronger so they don't have to give up their places of homes and stay where they are, that they still will have an option to stay there. And that requires, also, that the challenges we are facing within the climate change requires that we have to adapt to the new opportunities that the country's bringing along.

The new opportunity is our fjords being ice-free during winter. Our access to the mountains and the geological exciting places is easier than ever before. And the ice is no longer the biggest obstacle for us to do more explorations than we ever did before. And the climate change impact on hunters and fishermen, where it's worst, we get the home rule government's next step to self-rule act in 2009, where we have our rights for our own underground. That means that to make these things work, to strengthen, that our life standard doesn't get worse, requires a leadership that can see the point in turning the climate change into a new possibility for its people. And this is something that Greenland will see.

We simply refuse to be victimized by climate change. We take our action to see with clean energy, with hydropower potential, and giving the rights to the people of having a better economy based on non-living resources has to go hand-in-hand. This is called adaptation and the meditation is very important. And I think with good and broad

understanding to this issue by the Parliament, we think that we'll be doing a good move. But it requires that you take decisions that are a little untraditional, maybe sometimes controversial, but these are important decisions that need to be taken. Because in 10 years, our economy will not simply be as strong as it is today and we even don't have a strongest one right now.

MR. EBINGER: Thank you, Premier Hammond. I'm sorry, but I think in the interest of time for our panel we better cut it off there. If you would join me in thanking Premier Hammond for joining us today. (Applause)

Bring our panel up, please. Premier, if you're able to stay and when we get to the question-and-answer, if you'd like to come back and rejoin us, you are welcome. We'll get a chair for you if you have the time to be with us.

MR. POLLACK: Good afternoon. I'm Jonathan Pollack, a senior fellow in the John L. Thornton China Center, and I'm delighted to welcome all of you to Brookings today to celebrate, commemorate this very, very important and very, very interesting report.

It's often said that the title of a report is really what matters, so it may be, and the prime minister has already made reference to this, that "Gold Rush" connotes strong historical associations, not all of them good associations, I might add. I've been thinking a bit about whether there were other titles that were considered. "Eyes Wide Open" comes to mind as one possibility. (Laughter) Because what is clear to me and I'm sure that the panel will highlight is that this is a process that is not for the faint of heart. And also, I think Greenland represents a test case, a true test case, of whether this can be done right. And I'm confident with leadership like the prime minister that there is a keen awareness in Greenland about this, but I think that this is something that we will

want to discuss further on the panel today.

We're delighted that this is a joint initiative between the Energy Security Initiative at Brookings and the John L. Thornton China Center. And both dimensions add a great deal to what is, I think, an excellent document.

So without further ado, let me just very, very quickly introduce our three speakers today. I think, Charlie, we will go with you first. Am I right? Yes, our lead speaker that you've already heard today is my colleague Charlie Ebinger, director of the Energy Security Initiative. The next speaker will be my former colleague and now back in graduate school earning his Ph.D., Kevin Foley, long the associate director of the John L. Thornton China Center, who will have the opportunity, of course, to travel to Greenland, fulfilling I know what is something that he has deep passion about. And then finally, Professor Minik Rosing from the University of Copenhagen, who will be the concluding speaker.

So each of them will speak for a few minutes and then there will be time for additional questions and answers from the floor. Thank you.

MR. EBINGER: Thank you, Jonathan. I am here today in a difficult position because I am not one of the authors of the report. My colleague Tim Boersma, who along with Kevin, are the principal authors of the report, is currently in Lisbon about to get married. So I am filling in for him, but I have digested the report and I think it's an excellent comment. And please, I'd like to apologize to the Premier before I make my remarks if I say anything that might raise some concerns about the current policy, but we are here as friends and want to be as helpful and provocative as we can be.

While applauding the Premier's efforts to bring Greenland greater political and economic autonomy, based on our research I think we have a couple of

concerns and many of these she actually addressed in her own remarks.

First, regarding mineral resource development, we believe the timeline for that development highlighted in the 2014 National Resource Strategy, while ambitious, may be overly ambitious. As she herself said, the plan is to develop a number of new mines and iron ore, copper, maybe as many as five mines to be opened, and one oil well drilled every other year between now and 2018. That is a very ambitious timetable. And the reason we feel it's ambitious is with global commodity prices falling and, indeed, not to be too current, but just in the last several days almost collapsing, and the global recession still lingering, especially in Europe, we believe that investors are going to be reluctant to embark on new world-class mining facilities not only in Greenland, but probably internationally given the uncertainty of global demand, notwithstanding Greenland's notable resource endowments. Now, nonetheless, while we question the ambitious timeline, we believe that Greenland will eventually see very significant large-scale mining, but it may be farther down the road than currently anticipated.

Despite our caveats it is worth noting that Greenland in the past has had several successful mining projects, the most recent one being a gold mine that, unfortunately, closed in late November 2013, despite very positive environmental evaluations. And she mentioned that next year a major rubies and sapphire project is expected to come on-stream just south of Nuuk, which will provide several dozen jobs over the next decade.

For the larger and more labor-intensive projects which she also highlighted the problems of, the success of the Premier's program and that of her successors -- and I say "successors" not wishing her not to have continuation in office,

but we believe this is a very long-term program -- these successes will depend on trends in global commodity markets where international investors for bulk commodities, such as iron ore, zinc, copper, and lead, all of which Greenland has apparently in abundance, have become more hesitant in comparison to what they were just a few years ago. To illustrate this point, as we informed ourselves about these markets and able to make comments, thoughtful comments, about Greenland, one mining consultant told us that one had to be, to quote him, "crazy" to invest in opening an iron ore mine anywhere in the world given current market conditions.

Regarding offshore oil extraction, we believe Greenland is part of a wider trend in which Arctic resources have, unfortunately, become less attractive as more unconventional hydrocarbons in the Continental U.S. and elsewhere in the world are increasingly looking promising. This is not to say that there are not parts of the Arctic that still manage to attract private sector investment even today, such as the Southern Barents Sea, but the vast majority of Arctic developments, we believe, will be delayed, though we should make the caveat that despite the tremendous challenges confronting Arctic development, they are still seen by many oil companies, and I think the Premier highlighted this by saying how many people have expressed interest because despite the problems of an area like Greenland, they are still seen by many oil companies as less politically risky than Greenland or elsewhere in the Arctic. The companies believe they can handle the technological challenges of the Arctic better than it can handle the political vagaries of the Middle East.

From our conversations with Greenland's national oil companies, we believe they have a realistic view, telling us that they do not expect commercial extraction will occur within the next decade except under the most optimistic scenarios. But in the

next 10 to 20 years, they remain extremely optimistic. Other major oil companies are perhaps a little less sanguine, especially vis-à-vis the future of perhaps Northeast Greenland, where ice and weather conditions make them some of the most severe for petroleum extraction anywhere in the world.

At this point, it is unclear how much oil may be eventually found off the coast of Greenland. While the USGS resource estimates are not recent, they are currently being updated. But in contrast to perhaps a more conservative view of USGS, geologists from the Danish Geological Survey remain extremely bullish. In addition, most major oil companies, again, as the Premier noted, have expressed interest in offshore acreage and have formed various consortia to reduce the risks, though no drilling activities have currently been announced.

In addition, Cairn Energy, which drilled the last seven exploratory wells offshore Greenland, recently announced that it may reduce its operations in Greenland to reduce capital expenditures given the company's other interests throughout the world. One positive feature, though, surrounding the exploration wells drilled by Cairn was the participation of six indigenous engineers, trained at the Greenland School for Minerals and Petroleum.

In terms of resource endowment, there seems to be wide agreement that Greenland possesses vast treasure troves of minerals and energy resources, not only the ones we've already mentioned: iron ore, zinc, lead, rare earths, uranium, gold, rubies, et cetera. Furthermore, it is worth noting that only a small fraction of the country has been properly explored and much work remains to be done by the Danish Geological Survey and the independent Greenland survey once it is firmly established. As with a larger part of the Arctic, there are more things we do not know at this point than the things we do

know about Greenland's long-term potential.

In terms of regulatory and policy frameworks, a question we had from the floor, we believe the government has been appropriately cautious in its efforts to develop an effective regulatory framework. That, however, does not mean that everything is in place and ready to go. Important questions regarding transparency still have to be addressed and the effective separation between the regulatory authority and those involved in policy formulation has to be further effectuated and then they must both grow into truly independent institutions representing various portions of the public interest.

Greenland features prominently in European policy agendas for raw materials. That is understandable given the continent's significant import dependence on most raw materials, as well as the close interaction between Greenland and the EU over a number of decades. While Europe is concerned that Chinese buyers will lock in raw materials, especially for particular rare earth elements, we find these concerns, as my Kevin Foley will discuss in more detail, to be exaggerated. Despite these European concerns, we do not see the EU following the current U.S. policy to rebuild our entire supply chain of rare earth elements, owing largely to the cost and the decade of time it would take the EU to affect such a policy. In any case, we believe that the processing of rare earth elements will occur outside of Europe, and whatever the rest of us wish, China will remain a major processor.

Let me conclude by saying, all in all, we believe that large-scale resource extraction will take place in Greenland, but its government would be advised to manage public expectations. The currently voiced ambitions do not seem to match developments in global commodity markets and disappointing results will make the government vulnerable when the next election cycle comes in a few years' time.

Dealing with resource extraction as a long-term economic policy goal will allow the government to better prepare its policy and regulatory system, increase transparency, enact fair revenue distribution schemes for all the country's inhabitants, and train larger amounts of its population to contribute to what can potentially fundamentally alter Greenland's economy and the island's political future. Thank you.

MR. POLLACK: Thank you very, very much, Charlie. Kevin, I am sure you will focus on the China hype and the China realities, and look forward very, very much to your remarks, as well. Welcome back, of course, to your old stomping grounds.

MR. FOLEY: Thank you. So Charlie covered a lot of the grounds in terms of the background of Greenland's strategy to develop mining and oil and gas. And Premier Hammond also referred to a lot of the key points in her own remarks. But just to give a quick summary, in 2008, there was a referendum in Greenland for self-rule, which brought more autonomy and rights to revenues from subsoil resources in Greenland. It also froze the block grant that came from Denmark at real levels in 2009, so there's some room from inflation adjustment at Danish levels of inflation, but basically it's fixed whereas, in the past, it had been renegotiated on an annual basis.

This puts Greenland in a little bit of a fix in that revenue has to be raised for mining projects more quickly maybe than it would have had to have been in the past in order to meet the growing shortfall between that Danish block grant, which accounts for about 50 percent, I think, of Greenland's government revenues, and the projected revenue shortfall from the aging population. In addition to the demographic challenge that Premier Hammond mentioned, there's also a phenomenon of younger people from Greenland leaving to go to work in Denmark, and that also has the same effect. It sort of leverages the problem with demographics, that you have fewer young people in

Greenland. So you really do need to find an alternative source of revenue. There's a real imperative to develop this from mining and oil and gas resources.

So that looked like a very good plan in 2009 and 2010 as resource prices were going through the roof. When they started to come back down, it becomes more of a challenge. And there have been a lot of concerns voiced in Denmark and also in Greenland about various dimensions of this strategy. The one that I'm focusing on and something that has occupied a lot of the debates publicly in Denmark has been the potential association with China that this brings and a lot of concerns about what it would mean, for example, to have thousands of workers coming from China to Greenland to build and operate a mine.

There are other concerns, also, in Denmark that have been expressed, as well, also, by some quarters in Greenland about the foreign policy complications that might result from these relationships with large Chinese mining companies. So, for example, there were some concerns voiced about obligations that Denmark might have to the International Labor Organization, obligations that Denmark might have to the EU or even in the relationship informally with the United States over securing raw material supplies, and in particular this is looking at rare earths supply in Greenland. Because Denmark retains control over foreign policy, this allows one to argue that there should be more Danish control over these issues, and that's been the nature of the debate largely as it's played out in Denmark.

So taking a look at the role of China, we really found that there's much less to it than initially meets the eye. It certainly makes sense that Greenland is looking to investors from China to invest in mining less oil and gas, but more in mining projects because of the incredible amount of overseas investment that China has made and that

state firms in China have made over the last several years in mines around the world.

One of the major projects and one of the closest to coming online in Greenland is the Isua iron project, which is very close to Nuuk, and it would be roughly a \$2 billion investment that would be required to get the project going. The British company that has been promoting this has been looking to capital from China as a way to kick-start this project. They have not been successful in doing that so far.

There seemed to be a lot of confusion in the Danish press and the international media about the nature of this British company. And this is characteristic of other debates about China and Greenland is that, for example, this company, London Mining, which is a small venture based in London that has been operating since about 2005 with some mines in Sierra Leone and briefly a mine also in Brazil, it's not a Chinese company. They don't have Chinese owners. It is not in any way a front for investors from China. It's a financial venture that has invested in a resource in Greenland and hopes to be able to convert that into a very large investment from a mining major. They are naturally looking to China for this investment.

And the Chinese companies that had briefly considered this investment decided not to go forward with it. As I understand it, and I may not have the latest here, London Mining continues to seek investment from China and elsewhere for this project, but they really need a big investor to swoop in and get this going, and that's really the challenge that Greenland faces.

So it makes sense to be looking at China. China has been buying up iron mines in Western Australia, in Africa, and elsewhere for the last five years or so. It has slowed down a little bit in the last couple years, so there has been not so much investment by the large state iron mines in China as there had been before, partly

because a lot of the investments that they had made in Western Australia really have not turned out to be profitable. They were made at a time when iron prices were very, very high. Shortly after those investments were made, iron prices have come down and the large mining majors are able to operate at much lower costs and are actually working to drive down costs even further as a way to force out these other mines that are not as efficient. So this is not a great environment for investment in iron mines.

In terms of other Chinese companies that may have been involved in Greenland, there really haven't been any investments in Greenland by a Chinese mining company. This is contrary to sort of misinformed conventional wisdom, I think. There is one consortium of states-owned mining and exploration firms that is involved in some exploration, primarily for copper in Jameson Land in Eastern Greenland, but they haven't invested in a mine. They haven't identified a site where they'd like to make a major investment. There is maybe some potential there in the future, but it's not happening yet.

The only other Chinese company to be involved, to my knowledge, in Greenland is NFC, which is an engineering company. It is a large central state-owned company in China and they do rare earths, primarily. They are involved in a Memorandum of Understanding to develop a lead and zinc mine in Northeastern Greenland that also Premier Hammond mentioned. It looks to be a very big project, but they are not the principal investors in the project. They would take on the engineering and they're still looking for a major investor for this project.

They also are involved, NFC, in a Memorandum of Understanding with Greenland Minerals & Energy, which is an Australian mining company that has a rare earth and uranium project. This MOU is really only an agreement to potentially process the rare earth oxides, which is a capacity that China has right now and other countries

are still working to develop, but really China dominates this market globally. So there really aren't many other options out there. If you're going to be digging rare earth oxides, you need somebody to process them. It makes sense for China to do this at the moment. It doesn't make much sense to do this elsewhere. It may not even be possible.

So that's about it for the Chinese involvement in Greenland. Why is this important? Why look at this if it's not really there?

You know, I think one reason that it's important to look at this is because of the nature of the relationship now after self-rule between Denmark and Greenland. There's a lot of sensitivity to arguments about foreign policy obligations because Denmark retains control over foreign policy. So to the extent that there is a misleading impression about the potential role of China in Greenland, that could have important ramifications for perceptions in Denmark and around the world about what self-rule means in Greenland.

Another reason to take a look at this now is just for policy audiences in Washington as Washington prepares to take on the chairmanship of the Arctic Council. Washington, as we all know, is very fixated on China. And so this seems like a helpful bit of information to have, that actually China is not very actively involved in Greenland.

It also reflects from phenomena that you see around the world with Chinese investment. But just to focus on the Greenland case, it's not at all the case that Chinese state-owned enterprise flew into Greenland and, you know, started looking for ways to buy up pieces of land or invest in mines or build airstrips. You see a lot of concerns in the press about potentially geopolitical strategies in Beijing being behind these investments or being behind this sort of relationship with Greenland. It's impossible to totally disprove a claim like that, but we saw absolutely no evidence of any

kind of, you know, chess pieces being moved around on a board. It was quite the opposite.

Like in other countries and other situations, it seems to be the case in every one of these deals that there was a middleman, typically not from China, who sought to, you know, promote a deal. That owes, in part, I think, to the nature of the business in mining where, typically, you have small junior mining companies that, on a very high-risk basis, try to identify claims. They'll invest a few million dollars or maybe, you know, \$10 million, something like that, in an exploration operation. And, you know, it's very, very high-risk, it's probably not going to work, but, if it does work, then you can sell it or transfer it to a mining major and get a really large payoff. So these are basically venture capital kind of operations.

And, you know, to do that you have to go on a road show. You have to go find the likely investors. So you go to China and you try to have a Chinese state firm that is willing to maybe invest there. You make as much of a case and as attractive case as you can. You talk about melting sea ice. You talk about the critical position of the Arctic in, you know, global affairs and things like that. And you create a good story and you try to, you know, get your investments.

It's worth noting that these middlemen have not only been going to China. They've also been going to places like Korea. They've been a little bit looking around the United States, but the fact is that the mining majors in Australia and England and elsewhere are not really much focused on big, large-scale iron ore projects, for example, right now. So you're going to have more luck maybe finding this from a state firm in a place like China.

Investment in these resources in China is strategic in the sense that

these massive, largely state-owned industries in China are seen as pillars of the national economy: the steel industry, the copper industry. And there is a certain defined long-term supply of raw materials. There's a real perception in China that the mining majors, particularly in the iron industry, are working to shut China out of the game and not give China a seat at the table. And so there have been efforts to lock up supply of, for example, iron ore, for strategic reasons in the sense of trying to secure long-term supply for the industry, but not geopolitical reasons, so that's an important point.

There's a lot more to talk about, but I can just cover this in Q&A.

MR. POLLACK: Kevin, thank you very, very much. I'm reminded in your comments that, of course, Deng Xiaoping, the great architect of China's modernization strategy, had an aphorism, a phrase, to seek truth from facts. And I think that Kevin has highlighted that fact-based analysis is (audio malfunction 1:16:53-1:16:58).

MR. ROSING: Thank you. Thank you for the opportunity to speak here today. And I have read with great interest, of course, your report. And I should maybe say the background for me being invited, I guess, to talk here is that I was the chair of a committee that did a similar job between the University of Greenland and the University of Copenhagen, called *For the Benefit of Greenland*. And I could, of course, do it short and boring and say that we basically concur on all of our conclusions here that the (inaudible) concerning the timeline for developing minerals and oil industry in Greenland, of the great potential that still remains in Greenland and that will eventually result in mining industry, and, also, we have, doubt not, been to the same depths as you have into the relationship between China, Greenland, but our conclusions are the same, that they're mainly economic drivers that are causing China to show some interest in Greenland. And that interest, as I think we ought to agree, is actually rather small

compared to what has been said in the press.

But to not make mine much, I will completely kind of -- kind of futile; I should probably point out a few things where I think maybe we might disagree a little bit about the final details.

One is that I think you jumped a little bit on the bandwagon of climate change having an effect on the -- alter the minerals. It might have some on oil, but (inaudible) negative or positive, as we say, is actually unknown. The thing that you claimed somewhere that there is more land to be explored, and that's actually very, very marginal what climate change does to the accessibility of the land itself.

I think, also, to some extent, that the petroleum -- and now this may be a little big optimistic in saying that it might happen within 10 years, I think nobody in the industry would agree with that. I think that's -- or it'd be very difficult to find anybody who would agree with that. I think most people would say 20, 50 years, which is still, you know, something that would be very important for Greenland to have this develop over that time scale.

I think a really important major point is that the analysis of the geologic understanding of Greenland, I think, has a little bit of a lack of distinction between exploration and geologic research and survey. And that is kind of lump these two into one thing. Because it's correct, as you say, that Greenland is under-explored in terms of looking for specific mineral occurrences, but it's incorrect to say that Greenland is poorly understood geologically. Actually, it's hard to find any place on Earth that have a better geologic base map than Greenland, and that's simply because geology is very accessible in Greenland. It has been studied for several hundred years.

So I think that actually that Greenland is extremely well studied, but

under-explored in terms of economic-specific exploration projects. And that is kind of a two-sided sword, you would say, because the fact that Greenland is relatively well-known geologically, means that the chance of running into unexpected, very large-scale finds is actually relatively small because it's well-known and well-understood.

On the hand, the ability to find smaller deposits are much greater because you have a framework that you can understand the geology in, and that means that you can direct your efforts to where the opportunities are best. So I think that it's kind of -- it says that it will -- that will help the smaller end of the project line, but it kind of is a little bit turned in the high end because, as well as, you know, having overseen something enormous is relatively unlikely.

Well, then I think as for the analysis of the Chinese investment and the interpretation of the Chinese interest in Greenland, both in the present Denmark and Greenland and the rest of the world, maybe you have been a little bit dismissive of the concerns that have been expressed by these people because, as you rightfully point out, this may not be -- most likely is not a strategic effort on the part of the nation, the Chinese nation, to go in and overtake Greenland or the Arctic or anything else.

On the other hand, you would say that the concern could also be an expression that de facto if China has 10-, 15,000 citizens living in Greenland compared to the 56,000 Greenlanders living there, they will de facto have a completely logical and justified interest in having diplomatic presence, having all kinds of -- so you could say that it will change Greenland's relation and China's relations with the Arctic de facto even if it's not a strategy move on the part of the nation of China. So I think that you maybe shouldn't be so dismissive about the concerns, but rather be more interested in bringing the facts to the foreground, which you have done very nicely, I think. But I think it's

important to distinguish between these two aspects.

And I think as both our reports have shown, the mineral potential of Greenland is really very, very good, but it's something that is a long haul. And I think, also, what comes out of this jointly is that -- and something that needs somehow to be made clear to the general population of Greenland is that minerals in their own right are not value in that sense. It's the activities associated with extracting them, doing whatever. That is what creates value.

And I think there is this misunderstanding in Greenland because of all this hype that the minerals in their own right are very, very valuable. Every time there's a talk about something, you would see, you know, a hundred entries on Facebook or whatever media about people say but I'm sure they're coming to take this very valuable mineral and put it in their pocket and go home and sell it for, you know, tons of money. And I think that something that maybe should be an outcome of some of all of this research that is done is also to make clear that minerals are, in some sense, not very valuable, but they can be the basis of a long-term development. And that's what Greenland should focus on is that long-term development.

Then you have, as we also have tried to say, but then what can you do? I mean, what shall we do to promote that long-term development? And you very correctly point to capacity building as one of the major objectives to get harmonious development of the Greenland.

I think in that respect it's important to remember that Greenland is also a very unusual part of the Arctic, particularly of the North American Arctic. And that is, as far as my opinion, by far the most developed part of the North American Arctic. And it is a totally modern, functional society, and, as you also pointed out, with a very well-

functioning regulatory and legislative framework and everything else.

But I think that could also be something that we haven't really exploited yet, but when we talk about capacity building, we always talk about having people from Greenland learning about something related to the mining industry. But you could also put it on its head and say but all these people, they have all this enormous interest in the Arctic from the whole world, and nobody knows better about how to operate in the Arctic than people in Greenland. So I think that you should also make a business out of doing the capacity building the other way around and say that here in Washington, everybody who has maybe the slightest idea about the Arctic might be in this room now and there should be room for more people who could have an idea about that.

And I think that Greenland, because of its modern infrastructure, modern institutions, whatever, could actually offer capacity building for the part of the world who have an interest in the Arctic, but no understanding of it.

So I think that will be my concluding remarks. (inaudible) remarks is that I think that capacity building is something that should go both ways. Thank you very much.

MR. POLLACK: Thank you very, very much Professor Rosing. Our time, unfortunately, is very, very short this afternoon, so I'm going to dispense with any issues that I might raise and open the floor to questions. I would ask you please to keep it very, very limited. I do see an eager hand over to the right. And please, identify yourself and wait till the microphone is there.

MS. PARLO: Thank you very much your remarkable communications. My question is actually to --

MR. POLLACK: Can you identify yourself, please?

MS. PARLO: Oh, I'm sorry. My name is Anita Parlo and I've been working on a project with Harvard-MIT Negotiation, a project on Arctic fisheries, and it was invited by the presidents of Iceland and premier of Greenland. And my question is to Premier Hammond, if I may.

Drawing from the comment just made by Professor Rosing, so in terms of capacity building of corporate actors in the 21st century and in the context of warming and how it's impacting the fisheries, and as the fisheries are moving and the marine ecosystems may or may not be moving as quickly to be able to sustain them, is there some correlation as you were describing in your remarks to think in terms of what are oil/gas mining responsibilities as you all move forward for the long haul? And to what extent might there be some active relationship between the oil/gas mining industries and the fisheries. And of particular interest, of course, is the subsistence issues that you raised and the capacity of people to continue in the ways that they should like. Thank you.

PREMIER HAMMOND: Yeah, I think it's very important with the capacity building. To start out with, I will just say thank you for the gentleman that were not as optimistic as I am. But I must say that talking about facts, it's very important that you see the potential Greenland has. Greenland has potential for utilizing more of our own living resources, that's a fact. Climate change is bringing along new species coming to Greenland of economic interest. Right now we have test fishing on mackerel. That's a fact.

And the Greenlanders were ready to take the next step enhancing or increasing greater autonomy to Greenland from home rule government to a self-rule act within 35 years is a fact. And that Greenland is facing very big economic challenges

within coming years, that's a fact. That there are some different kinds of prices going up and down in the mineral sector around the world, that's a fact, too. But the fact is that Greenland has to do something about our economy now. That's also a fact.

Saying capacity building, 35 years ago my personal short story is that I have never met a Greenlandic doctor, I never met a Greenlandic geologist. I hardly was taught by Greenlandic-educated teachers and I never heard of Greenlandic pilots or anything. Now, after 35 years, I take them more or less for granted.

What Greenlanders have achieved within capacity building of its own people and prioritized has not been seen any other places around the world, that so many are getting ready. So, yes, I'm very pessimistic [*sic*] on behalf of my people because I know the fact that they can do it.

And another thing is within the fisheries. Regarding climate change's new fishery species coming to the Greenland waters, this year was have given 100,000 tons of mackerel and test fishing in East Greenland alone. And last year it was 60,000 tons and they were fished up within a couple of months. And the test fishing is showing really good results. That means that climate change is bringing along new species that we also have to look at, at least just as optimistic as many other things we're seeing. That's why our test fishing is very important.

And also, we have found out that during this year, that mackerel is not only East Greenland. It's also in West Greenland, so that also will be -- (inaudible) will be looked at with scientific and biological advice best possible for our government to see the long-term investment we'll be doing on our vessels to be able to fish this species as well.

And also, another thing is that came as a surprise this year, all fishermen that were fishing after mackerel in East Greenland caught tuna, quite a large amount of

tuna. That means that a lot is happening in Arctic. That's a fact, too, that we are facing these challenges and trying to see what's best for us, not to see the mineral sector as the only answer to economic prosperity of the Greenlanders, but see the whole holistic approach to what options those Greenlanders have and do it in the long term. But also, it requires, also, we're all working hard to ensure that also -- the long term also being secured if you can see long term.

I spend a lot of time traveling together with my cabinet to go out and have these talks like this, facing the other talks and also letting the world know that they, even though we are few and very little capacity, also do have potential that others can share with us. I hope it's an answer.

MR. POLLACK: Very good. Thank you, Prime Minister.

Yes, a gentleman there.

MR. JORDAN: Hello. Thank you for your time. My name is Charles Jordan and I'm a current student at Cornell University, so I hope you enjoy your time in upstate New York as much as I have. I'm also a research assistant at the Center for American Progress. My current work is focused on Chinese environmental issues.

Madam Premier, earlier you mentioned that you would like to see increased U.S.-Greenlandic cooperation. My question is do you see cooperation in the form of reform on Chinese environmental issues? You mentioned that Greenlandic people understand the value of environmental conservation, so is there any avenue for U.S.-Greenlandic cooperation on reducing Chinese black carbon emissions and other pollutants?

MR. POLLACK: I think again, Madam Prime Minister, you are the understandable --

PREMIER HAMMOND: Sorry, I'm stealing the whole picture. (Laughter)

MR. POLLACK: You're the understandable target. It's a rare opportunity to have a prime minister here to answer questions.

PREMIER HAMMOND: Well, I don't mind at all. It's just is it all right with you?

MR. EBINGER: Fine.

MR. POLLACK: For sure.

MR. EBINGER: We're fine.

PREMIER HAMMOND: Okay. Well, I think that it's very important for us to emphasize this is not a question of which country that we're picking to be the partners in Greenland. This is partners that would like to be partners of Greenland are all welcome. That's forever important for us. This is not the question of if it's Asia first or United States second or Europe third. This is not a question of which country that we would like to work with. We're working under the normal circumstances that will be business doing on market terms, international market terms. And this is very important for us to notify.

And also, it's important that we're dealing with the countries and headlines and frameworks that we see ourselves in. Greenland has an international obligation to follow ILO conventions to protect labor. We have our own Declaration on the Indigenous Peoples Rights on the U.N. that we are also protected under. We're also protected on the universality of human rights that we all have, love, and share. And whatever country that we are going to be working with, regardless whether it's a company or country, all have to be able to see themselves in our legislation and able to see ourselves in the mirror and say it feels good.

This is very important. We are not going to compromise with any whatsoever just to get money. That's very important. Our people are leaving the country more, hundreds every year, because they have no option. There's no job, there's no housing, and the healthcare system is way too bad and for our disabled, the services we can give them is way too bad. Knowing that as a country leader I have to do something to ensure that they at all times should have an option to stay and have a good life in Greenland, especially for the next generation that's going to have a hard time if I don't make decisions that are a little different, but to the good.

That requires that, of course, we are facing a lot of obstacles that have been highlighted by the gentlemen, but, at the same time, as Minik Rosing also was mentioning, there is a huge capacity in the Arctic that has to be transformed into a better economy together with other companies outside. This combination is important. Greenland will never, ever, not even the slightest chance, be able to have its own mineral industry up-going without any international partnership. Our economy is way too little, our capacity is way too little, and the challenges we are facing regarding infrastructure is not to be lifted by us alone. International cooperation is inevitable and this is a good recipe for a win-win situation for both countries that would like to work together.

MR. POLLACK: Thank you very, very much. The gentleman here and I think this will probably have to be the last question this afternoon.

SPEAKER: Brooks (inaudible) before. I'm an independent consultant these days. My question is for the panel, actually. And that is we haven't talked much, although Premier Hammond mentioned this issue, about the shipping implications of mining development in Greenland. And clearly, you know, whatever the schedule the mines actually develop, most of the ore will be shipped by sea. That will require port

facilities, it will require the evolution of a Greenland Coast Guard, all kinds of things that probably don't currently exist. Who's going to pay for all that? And where is that infrastructure? Is there a strategy for developing that necessary infrastructure?

MR. POLLACK: Please. We can start there and then if others want to make a comment.

MR. ROSING: Well, I think as you correctly point out, there is a great lack of infrastructure. I think if you start at one end, the Coast Guard you could say is right now the Danish responsibility and the Danish Navy is doing that. And I think that there are ongoing negotiations to coordinate that with Canada and Iceland and all of the neighbor states, so I think that is pretty much well understood.

But in terms of the infrastructure, in its current form I think it'll be usually assumed that it's something that's under the financing of the mining project itself, and that's what makes the mining projects difficult to implement because it means that the entry fee, so to speak, is very, very high to get started.

SPEAKER: To be fair (audio malfunction 1:36:08-1:36:19).

MR. ROSING: Yeah, but then --

SPEAKER: A little hiccup.

MR. ROSING: No, but that's true, but there is no -- all the other infrastructure is not there and the problem is that the Greenlandic society will not be able to pay for it. I think you cannot -- Greenland is 3,000 kilometers from one end to the other, and there's no way that you can be prepared for where the mining activities will be by making a general, generic infrastructure. So, therefore, the infrastructure has to be associated with specific projects.

MR. POLLACK: This has really been a fascinating panel and I want to

thank all of our contributors here, but also the ex officio member of this panel --
(Laughter) -- Premier Hammond, who contributed as well throughout the program. I'm
very, very glad that Brookings has undertaken this study and that is, I hope, helping give
these issues, a complex set of issues, the attention they truly deserve. So if you could all
join me in thanking all of our panelists and our (inaudible). (Applause)

* * * * *

CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

Carleton J. Anderson, III

) Signature and Seal on File)

Notary Public in and for the Commonwealth of Virginia

Commission No. 351998

Expires: November 30, 2016

ANDERSON COURT REPORTING
706 Duke Street, Suite 100
Alexandria, VA 22314
Phone (703) 519-7180 Fax (703) 519-7190