Northern Lights Episode 16

Responsible Mining in the Arctic

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Sarah Mackie

Hello everyone and welcome to Northern Lights, the Harvard Arctic Initiative Student Podcast. This is the second of our guest podcasts from students from Harvard Kennedy School’s Policy and Social Innovation for the Changing Arctic course. We hope that you will enjoy listening to their work.

In this episode Taylor, Shashank and Nikolas explore issues surrounding mining in the Arctic and consider whether it is possible to balance the potential economic benefits of mining with the negative impacts that it can have on people and the environment.

This is Taylor Lam, Shashank Singh and Nikolas Westfield with ‘Responsible Mining in the Arctic’.

Nikolas Westfield

Climate change is causing the Arctic region to grow warmer two to three times as fast as the rest of the world. The adverse effects of climate change are real. Nevertheless, this warming is leading the Arctic to be viewed as a new source of economic opportunity for many.
Hello, welcome to a conversation on responsible mining in the Arctic featuring Jan Dusik of WWF.

This podcast was created for Harvard Kennedy School's ‘Policy and Social Innovations for the Changing Arctic’ in association with the Arctic initiative at HKS’s Belfer Center.

My name is Nick Westfield. I'm a master's student at the Fletcher School of Law and Diplomacy, studying Energy and Environment resource policy. I'm joined by my colleagues, Taylor Lam and Shashank Singh. Taylor, a quick intro, please, then Shashank, take it away.

Taylor Lam
Hello, Taylor Lam. I'm a National Security Fellow at the Belfer Center for Science and International Affairs, and I'm currently studying the effects of the Coronavirus on the marine transportation system.

Shashank Singh
Thank you, gentlemen. Hello, everyone. My name is Shashank and I'm a master's student studying public administration at the Harvard Kennedy School. Today, we are here to discuss an important aspect of sustainable development in the Arctic region. It is well known that climate change is causing the region to go warmer two to three times faster than the rest of the world. But interestingly, this warming is also leading to the region being viewed as a new source of economic opportunity. The warming in the Arctic is leading to retreating ice cover, which in turn is improving accessibility to the region. The region has vast reserves of minerals. This includes copper, gold, iron ore, bauxite, phosphates. And this improved accessibility is also improving the chances of these minerals being mined in the near future. According to the Fraser Institute global mining survey, out of the most attractive mining destinations in the world, the top seven are all Arctic countries. It isn't surprising that most countries in the Arctic view this prospect of mining the commodities as economically favorable. The mining sector promises a relatively quick return on investment and is a preferred pathway for economic development for all those countries that have these resources. But mining activities also have an extensive footprint on our natural and social environment, and if they're not managed properly, can have severe negative impacts on people and nature. For instance, the toxic waste generated by mines can devastate the freshwater
ecosystems, devastate the habitats of fishes within those ecosystems, and disrupt the fishing
industry in totality, which would then disrupt the lives and livelihoods of the indigenous peoples
in the region. So how do we deal with it? Can we imagine a mining sector in the Arctic that is
responsible, that creates and maximizes environmental and social benefits, and most importantly,
that serves people and climate equally? To discuss this in more detail, we are pleased to have today
with us Jan Dusik, who is joining us from Gland, Switzerland. Jan works with the conservation
NGO- World Wide Fund for Nature where he leads the Sustainable Development track within the
Arctic program. Jan, thank you so much for being here with us today. And to get us started Jan,
please tell us a bit more about your work at WWF and how it relates to mining in the Arctic region.

Jan Dusik
Well, thank you very much, Shashank and colleagues for invitation to be part of your presentation.
And I have joined the WWF Arctic program recently coming from UNEP where I worked on
policy issues, but also on Arctic and Antarctic. And in spring 2020. I joined WWF Arctic program,
and I was tasked with a portfolio of sustainable development. That's a very broad portfolio, it's
essentially trying to define the balance between the conservation -which is the main objective of
WWF- with the fact that there is economic development, and there is, especially in the Arctic, the
prospect of quite significant economic development, and how do we bring these into balance. So
I'm trying to see, to merge the two worlds together to define something which will mean that the
development in the Arctic can continue in a way that will not destroy the biodiversity and other
environmental features of the region. And all that, obviously, in the context of rapidly changing
climate. And that is going to be the case for the coming decades at least.

Taylor Lam
Jan, thank you for that. Could you please just give us a bit more of an overview of the current and
projected state of mining in the region, please?

Jan Dusik
Yes, so definitely as was mentioned in the introduction, it's a region which already has pretty active
mining and with the proceeding climate change, this is likely to increase significantly in the future.
And part of what we are discussing now with the various players in the Arctic, with the
governments, with the mining industry, with the locals, is that actually it's very difficult to have a complete overview of, maybe is the easiest to have the overview of existing mining activities, but already when you look at the projects, there is no pan Arctic database of projects. And if you want to have an information, where are the resources in which quantity, then it becomes even more problematic. So, one part of understanding and striking the balance between how the mining should evolve into the future would be to understand what is already there, what is the potential, what are the intentions of the private sector companies, but also the governments' and from that basically design a sustainable model, again in the context of the fact that the climate will be changing, it will be impacting on communities, it will be impacting on nature, on biodiversity, and then all of this together is a moving target. So, how does something like mine fit into this and where do we draw the line where it is acceptable to engage in new mining activities or where these lines should be drawn?

Taylor Lam
Well, given so many different competing factors, what would you say Jan are the implications that mining is having or is expected to have on sustainable development in the region?

Jan Dusik
Obviously, mining has a range of impacts during the lifecycle of the process, starting with the exploration, then going through the establishment of the mining itself, the decommissioning, and the rehabilitation. And there is a range of impacts in also in terms of sustainability. But when we look on environmental sustainability, the biggest impact is at the stage of mining, and the decommissioning of the mine. So, not so much in the first phases, which are maybe more important in terms of engagement of local communities and the respect of laws for the permitting, but rather during the operation and after the operation is finished. So this is the first point. The second point is that, especially in the Arctic, we are not looking only at the mining activities themselves, but also how to bring the material from the mine to the customers and to further production. So shipping typically is a very important part of the thinking about the value chain of mining, and how the environmental footprint of that mining should be quantified. So if you have to choose between a mine which sits in northern Canada, and then all the produce is shipped over the Atlantic Ocean to a port in the Netherlands, you might have a different environmental impact with a mine
which is based just 100 or 200 kilometers away. So there are these elements which make the Arctic
mining specific. The other specifics are that often there is a range of possibilities, what you can do
to mitigate the impacts of mining, minimize them to do remediation, and to compensate. There's a
mitigation hierarchy that normally applies. But what is the difference in the Arctic is actually that
the compensation is very difficult, because it's very closely, the mining is very closely tied to the
resources, which again are very closely tied to the livelihoods of the people. The regeneration of
these ecological resources takes place over a very long period. And they provide a range of critical
ecosystem services. So there are some specifics in the Arctic context, which make us think in a
little different way than when we talk about mining in other parts of the world.

Nikolas Westfield
Jan, I was wondering: is there a way to ensure that the mining activity is sustainable such that it
doesn't adversely impact the natural environment or indigenous communities?

Jan Dusik
Well, that's an interesting question, because we believe that you cannot achieve a full sustainability
of mining. What you can achieve is responsible mining that takes into account all the elements that
you mentioned- the local communities, the environment, specific needs of the indigenous peoples.
So all these would fall under the responsible mining relationship with the people, with nature, with
the shareholders of nature, which don't have only a monetary value. So this is, in principle, it is
possible to run responsible mining. Now, how this is defined, it's not defined universally. And
that's why WWF is also trying to advance the thinking about responsible mining and about using
the best practices from around the world. We believe that governance is very important, actually,
crucially important- governance from the countries, from the laws that are in place, from the
approach of the companies. And then, of course, if you want to generalize the environmental
impact, it's very difficult because there's different places, ecosystems, landscapes that we are
talking about. There are some general restrictions or red lines that we have tried to define as regards
mining. One of them would be that there should be no mining in biodiversity protected areas.
That's one. Another one is that there should, we believe that at the moment, we should not engage
in deep seabed mining, because there's so much unknown that we should not venture into that until
we have the full information on the impact. So there is a few elements that can be defined in general
terms, but it is crucial to assess the impact of the mining in the current, in the actual context of the place. And with the good governance that ensures participation, community engagement, building on the knowledge that exists, including at the local level, and then ensuring that before any decision to open a mine is taken that all these considerations have been followed and that on the balance, it was the decision to proceed with the mining has been a responsible one.

**Nikolas Westfield**

Jan, I was wondering: is there any framework or are there any metrics to measure responsible or sustainable mining?

**Jan Dusik**

Well, one part of the problem is that are no common standards for the parameters, it's all based on the set of legislation applicable at that place. And even if you look around the Arctic, you would have us at least eight different regimes, if not more, that the legislation would apply. What is important for mining is that there is the international comparison of performance, so that you can actually measure the performance of the mining companies, the environmental footprint that the mining has produced, the due diligence in terms of engagement of stakeholders, of the local populations. So, you can put up some degree of rating, but there is no universal set of standards that would say, if you comply with this, this figure, you can go ahead with the mine, if you are above that limit, you cannot. So again, it depends on local conditions, but there are scales where you can write the companies and the individual installations in terms of their performance. And it is actually very important because then it also puts up a pressure on the mining companies from the investors, from the consumers, who make them accountable for their environmental performance and which can increase the level of ambition to reduce the environmental impact from the mining operations.

**Shashank Singh**

Thanks, Jan. Taking off from your point about thinking about which activities, which mining activities, are sustainable and which ones are not- can you give us examples, if possible from the Arctic region, but if not from outside the region, of mining activities or mining operations which could be called sustainable or responsible in the true sense?
Jan Dusik

Well, Arctic Council, which is a unique organization that brings together the Arctic countries, but also the observers, organizations, or the countries etc, has put up a project of mapping the mainstreaming of biodiversity in mining. And as part of that project, they have actually collected the good examples from different parts of the Arctic, where the main principles of this mainstreaming have taken place. And when you look at those, I can give you two examples from that study, which is available on the Arctic Council website. And you can see that actually, the biggest value in all that is that the process, the consultation, the reflection of available information was followed in the stage of design of the mining project, but also during the mining itself. So, that's where again it puts main emphasis on the governance and inclusion and building partnerships with the local population and being aware of the local environment situation. The two examples which I've selected- one is called the Sakatti mine in Finland, and another one is the Red Dog mine in Alaska, and they are both described as good cases of such a responsible mining approach, there is many other good cases. And of course, the challenge is that, as I was saying earlier, you cannot compare the environmental standards applicable in different countries, and also reflecting the local environmental situation. So it will need to be judged in every concrete case, based on the local conditions. And the idea is that there is a series of considerations that the mining companies would apply the best practices, the good neighborhoods approach with local communities that will allow to take this informed decision. And by informed decision, it doesn't always mean that the original project would be allowed to go ahead. In some cases, it has to mean that the risks are simply too high that the project cannot be pursued. So it's not just about ticking the boxes, having sent a questionnaire to the local communities, but actually taking the information seriously and being ready for a negative answer when it comes to pursuing a project.

Taylor Lam

You talked about how there isn't a standard rubric for responsible or sustainable mining. And, I'm wondering, do you think there's an appetite and a will to try to establish kind of a metric for that, or is that just too hard?

Jan Dusik
Of course, there's several things into it. I mean, the Arctic Council is a great body. But it's an intergovernmental consultative body, right. It doesn't set legally binding mechanisms. And it's difficult geopolitically, and in terms of economic competition for a number of terms to prescribe something to the membership of the Arctic Council. So what you're seeing here is, of course, the appetite, the vision that there will be big economic revenues from future mining in the Arctic. And there will be little appetite to restrict it by a set of external conditions that would be set by whichever international body. So of course, all the countries have their own environmental standards. They all differ to bigger or smaller extent. But I think that the economic competition with these resources is something which is hindering the way towards a more uniform standard and the best you can hope for probably is the application of the best practices and sharing the knowhow, sharing the data, and continuing the conversation with the different stakeholders, including with the mining companies, including with the indigenous peoples.

**Nikolas Westfield**

Jan, one final question. For our listeners who have little connection to the Arctic, what should they keep in mind? Why should they care about the Arctic and responsible mining?

**Jan Dusik**

It is important to realize that that's a slogan that is used in the Arctic quite often that what happens in the Arctic doesn't stay in the Arctic. And this goes also for the impact of the mining. One element is that the products of the mines are being shipped to other parts of the world. The other is going climate change, which is also accelerating with what is happening with, with the Arctic environment and with the melting ice and melting, melting glaciers, but also the pollution that would go into the ocean from accidents in the mining operations that would travel around the world. So it is important to realize that there is impacts of operations in the Arctic, on the environment in the world but even more importantly, that there is big impact of our way of consumption around the world in what's going to happen with the Arctic environment – how much raw resources we will need for producing our goods, our electronics, but also our electric vehicles, for instance, they will also be demanding some of the raw materials that are found in the Arctic. So it's a complex relationship where the global economy, including what we call circular or green economy, is having an impact on what we are going to need to mine from the Arctic, and that it's
going to have an environmental impact for the people living in the Arctic, for the nature, but also globally.

**Shashank Singh**

Jan, thank you so much for all your insights. I think from this conversation, it is very clear that mining has potentially significant impacts or significant consequences for the sustainable development for the Arctic region, but also that responsible mining is possible. And with this element of hope. I want to thank you again Jan for agreeing to speak to us on this topic. And I want to thank Nick and Taylor for hosting with me this very insightful conversation. Thank you so much.

**Jan Dusik**

Thank you guys. It was a great pleasure to talk to you. And indeed, I agree that mining is going to be in the Arctic, it's going to be probably more of it, and we need to ensure that it is done in the most responsible way in this precious region.

**Sarah Mackie**

Today’s episode was written and produced by Taylor Lam and Shashank Singh from Harvard Kennedy School and Nikolas Westfield from the Fletcher School of Law and Diplomacy at Tufts University.

We would like to thank Jan Dusik, the Sustainable Development Lead for WWF’s Arctic Programme for his time and expertise.

This podcast was created as part of Harvard Kennedy School’s Policy and Social Innovation for the Changing Arctic course, taught by Halla Logadóttir.