

Clip #5 Transcript: Research Implications

The major **stakeholders** for the output from our research is industry—so it's the forestry industry—it obviously holds great value for not just forestry that's relevant to industry and making money. So getting nice Douglas-fir trees for Christmas and importing them to Europe, but I think also on the ecological side. Foresters and the people of Canada are very invested in the health of their trees they want these trees to stay around, they play a very significant role in this **ecosystem**. Our research and its outputs will not just like, help the economy and the industry that's related to forestry, but also the ecological side where we will be able to ensure that we understand how we can try to keep a good population of conifers that are very important to the ecosystem here.

The amount of **genetic diversity** in a species is a great predictor for how well it will be able to respond to environmental variation. We are collecting and providing that knowledge and **conservation biologists** can take this information and translate it into policy. It's a great resource to facilitate **conservation policies**. I do not know if this is actually happening or if it will happen, but we're providing the resource and it can be used, but I'm pretty sure our research will make some impact into how these trees and how these tree populations are dealt with in the future and how they [foresters, biologists, etc.] manage them. It depends on what the lobbyists and the people who are controlling the government's decisions and what their priorities are—if their priorities are [building] a pipeline that goes through the last whole population of a species, maybe it [our research] won't make that much of an impact. It's so out of our control. And really it's country dependent and it's government dependent.

I would say the short-term [implications] would be that we provide a **genetic resource** for foresters and industry, so that's the one thing. And secondly, in terms of more theoretical biology, we are providing new methods to study these sorts of gene-environmental association studies, so we are developing the methods that can help us understand adaptation to climate.

Long-term [implications] would be taking this information that we're providing—this genetic resource—and understanding and trying to implement it for conservation purposes to inform conservation policies. And the other would be to like the economy to grow healthy trees and happy trees so everyone can have one at Christmas because, I mean that's an industry! Those would be the two long term outputs of this.

