

The Ecopolitics Podcast - S01E07: Canadian Environmental Law and Policy

<https://www.ecopoliticspodcast.ca/episode-7-canadian-environmental-law-and-policy-3/>

Host: Peter Andrée (Carleton University)

Guests: Angela Lee (Ryerson University) and Heather McLeod-Kilmurray (University of Ottawa)

Recorded August 14, 2020

Environmental law touches all parts of our lives. In this episode, we speak with Dr. Angela Lee, Assistant Professor of Law at Ryerson University, and Dr. Heather McLeod-Kilmurray, Professor of Law at University of Ottawa, about Canada's environmental laws and the ways in which they successfully (or not so successfully) help protect the environment.

Episode 7: Canadian Environmental Law and Policy

Heather McLeod-Kilmurray: Environmental law covers a lot of areas of law, so both in common law and civil law, environmental law arises in area such as tort law, property law, food law as we've talked about, but also things you might not immediately think about. So corporate law, trade law have huge impact on how the environment is protected or degraded. Intellectual property law. So there's in fact, very few areas of law that are not affecting or affected by the environment. And then of course, there's the international level of law, where Canada has obligations under, for example, the Paris Climate Agreement and Sustainable Development Goals.

[00:00:45] **Peter Andrée:** Welcome to the Ecopolitics Podcast. This podcast series tackles some of the big questions in the field of environmental politics for university students in Canada. I'm Peter Andrée from Carleton University. And my cohost for the series is Ryan Katz-Rosene from the University of Ottawa, though he's not going to join us for today's conversation.

[00:01:06] In this episode, I'll be talking with Dr Heather McLeod-Kilmurray, professor in the faculty of law at the University of Ottawa and Dr Angela Lee, assistant professor of law at Ryerson University in Toronto. Today, we're talking about environmental law and policy in Canada. Both Heather and Angela teach courses on the intersection between Canadian law and the environment. They are also two of the three co-editors with professor Nathalie Chalifour of the University of Ottawa. A groundbreaking book released in 2019 called Food Law and Policy in Canada. Environmental law and policy, as we'll discuss, encompasses a lot. This is also a rapidly changing field, as the climate crisis and biodiversity crises deepen, as new issues like plastics in the environment come into the political spotlight and as new technologies like lab grown meat or genetically modified fish, come into supply chains and need to be regulated for their possible environmental and human health implications.

The Ecopolitics Podcast - S01E07: Canadian Environmental Law and Policy

<https://www.ecopoliticspodcast.ca/episode-7-canadian-environmental-law-and-policy-3/>

[00:02:05] I'm so glad that we have two experts with us today, Heather and Angela, to help us unpack environmental law and policy in the Canadian context. We have a lot of territory to cover so I think we should just get right into it. So thank you both for joining me in this conversation. And I'm going to start with a question for Heather to set the stage.

[00:02:24] Heather, how would you characterize the field of environmental law in general terms? And what does this field look like in Canada specifically?

[00:02:32] **Heather McLeod-Kilmurray:** So first and foremost, there are, and always have been Indigenous nations in Canada with extensive environmental laws, principles and practices, while some settler law and practice is starting to acknowledge and respect traditional knowledge, science, and expertise, it's still woefully inadequate in this regard. Indigenous environmental law on these lands and waters of course deserves an entire podcast of their own and indeed many and varied ones. Within Canadian settler law, and we can begin with Canada's constitution, which does not interestingly include the environment as one of the areas of jurisdiction given either exclusively to the federal government or the provincial government. So we have a shared jurisdiction over the environment that's often debated. And a classic example of this is the current litigation over the federal Greenhouse Gas Pollution Pricing Act or the carbon pricing efforts of the federal government.

[00:03:31] So section 91 and 92 of the constitution divide federal and provincial powers over various undertaking. So the province has power over things like property and civil rights, matters of a local and private nature and natural resources while the federal government has power over things like fisheries, taxation, interprovincial trade, but the federal government also has a basket category called 'peace, order and good government' and that POGG power contains a national concern doctrine. And that was the argument that the federal government was able to win on, in both the litigation in Ontario and Saskatchewan, but the Alberta court of appeal disagreed. And so now it's going to the Supreme Court of Canada. So what most experts argue is that we have, of course, overlapping jurisdiction over the environment and we would apply normally what Canada tends to do, which is a cooperative federalism model. Also, of course, municipal governments have a lot of environmental power and influence through things like planning laws, zoning, infrastructure, transportation policy, et cetera

[00:04:39] **Peter André:** you've done a great job, Heather, of kind of sketching the breadth of environmental law and policy recognizing the place of Indigenous environmental law and policy, which is

still underacknowledged by the state. And then talking about this area of overlapping jurisdiction and hopefully cooperative federalism, in most cases. Can you tell me a little bit about the normative assumptions that underpin this legal approach?

[00:05:04] **Heather McLeod-Kilmurray:** Yes, so while there is some movement lately toward more ecocentric and ecosystem type approaches in some areas of Canadian environmental law, a lot of emphasis is still on the environmental benefits to humans. So it's still quite anthropocentric. There is growing awareness that there can't really be an economy without an environment. However, the original views of settler societies, that natural resources are to be exploited for gain, remain strong. For example, the new federal Pan-Canadian Framework on Climate Change is still called the 'framework on clean growth and climate change'. So still this idea that constant growth is a fundamental, seemingly unassailable, primary goal is a real challenge for achieving sustainability. So anthropocentrism, extractivism, capitalism. We see a lot of emphasis on sort of the ability of Western science and technology to solve a lot of problems.

[00:06:05] So in Canada, environmental law has often been criticized as just a system of permits and controlling. That's all. That was really the model we used in the sixties and seventies, rather than trying to prevent all environmental degradation. And so some have even called for us to stop talking about 'environmental law' and stopped doing environmental law and move to more sort of paradigm shifting concepts, such as 'ecological law' or 'green law', 'earth law', things of that nature.

[00:06:39] That's really fascinating, heather, just as you point out some of those normative assumptions that I think many lawyers and many of us just take for granted and that within this field of environmental law deservedly are going to be criticized and, and It's exciting to think about where this whole field can go in the future. And I think I'll ask you some questions about that at the very end.

[00:07:02] But right now I would like to turn to Angela. Angela, Heather has provided a really good broad introduction to what environmental law looks like in Canada. Can you give us some examples of some of Canada's key pieces of federal environmental legislation and how they're meant to manage or protect the environment? What are their key instruments, enforcement mechanisms that are found in this legislation? And to what extent does this legislation actually achieve its goal?

[00:07:32] **Angela Lee:** Right. So there are definitely a lot of different pieces of legislation that we could look at. As Heather has already identified all of our lives and our health and our societies and our

The Ecopolitics Podcast - S01E07: Canadian Environmental Law and Policy

<https://www.ecopoliticspodcast.ca/episode-7-canadian-environmental-law-and-policy-3/>

economies and so on are ultimately contingent on having a healthy and functioning environment. And so in many ways we can look at all law as sort of being environmental law in a sense, but there are some specific areas, some specific federal pieces of environmental legislation, of course, that we can identify. And we can identify some sort of some broad categories that these fall under.

[00:08:04] So for example, pollution prevention was a major sort of area of environmental law growth in its earliest days in sort of the sixties and the seventies. And there are acts that are concerned specifically with things like air quality and water quality. So for example, in the Fisheries Act, there are provisions that deal with issues that relate to water pollution within the ambit of this legislation.

[00:08:29] And then we also have acts that are concerned with the regulation of toxic and dangerous substances. They're acts that deal with biodiversity and conservation. So probably the most significant act in that area is the Species at Risk Act. There are also other acts like those that are specifically to the Arctic. There's the federal Greenhouse Gas Pollution Pricing Act that Heather has already made reference to. There's an Impact Assessment Act that focuses on major projects that take place within federal jurisdiction and then the environmental effects of those kinds of major projects. But probably the most significant piece of environmental legislation in Canada is the Canadian Environmental Protection Act of 1999. And so this is kind of the cornerstone of Canada's federal environmental legislation. And broadly speaking CEPA 1999, as it's called, is aimed at preventing pollution and protecting the environment and human health from the adverse effects of toxic substances. So essentially it creates a regulatory system to identify sources of pollution and waste, and then to control the quantity and quality of the substances that are discharged into the environment. So it provides some processes for assessing these kinds of substances, with respect to the risks that they might pose to environmental and human health. And interestingly CEPA also makes an explicit reference to sustainable development as an aspiration. So it alludes to sustainable development in its preamble.

[00:10:02] And sustainable development, as some listeners may be familiar with to varying degrees, is the most influential discursive norm in modern environmental law today. And the definition that most people will think of when they think of sustainable development is that which was proposed in the Brundtland report that was published in 1987. And so this talks about development that meets the needs of the present without compromising the ability of future generations to meet their own needs. And so that's also been sort of an underpinning idea of a lot of pieces of Canadian environmental legislation, including CEPA and a number of other acts as well.

The Ecopolitics Podcast - S01E07: Canadian Environmental Law and Policy

<https://www.ecopoliticspodcast.ca/episode-7-canadian-environmental-law-and-policy-3/>

[00:10:43] So moving on to kind of the second part of your question about enforcement, there is a standalone environmental enforcement act. This was part of an omnibus legislation that came into force in 2010, created some new enforcement tools, it amended some fine regimes and introduced sentencing provisions to nine existing acts. And the underlying goal here was to promote more effective enforcement of the laws that protect Canada's national parks, air, land, water, and wildlife. There's also an environmental violations administrative monetary penalties act. And this establishes a framework for issuing administrative monetary monetary penalties for violations of the legislation. So these are, these are fines that companies and individuals can be charged with.

[00:11:29] Well, one of the major problems in terms of Canadian environmental law and policy is that a lot of these acts are not often framed in mandatory terms. And so officials are authorized to develop regulations. And often there are regulations that are in place, but they don't necessarily have strong positive obligations to act. And they're also afforded a significant degree of discretion. So ultimately this often creates a situation where legislators are addressing the symptoms of environmental degradation in a more reactive fashion, as opposed to targeting some of the root causes more proactively. And so while this means that environmental law has had its share of successes, there's still a lot of progress that can and must be made if we're going to ensure a viable future.

[00:12:14] So, as Heather has already suggested, there are some really deeply rooted systemic issues that need to be addressed in terms of this constant preoccupation with growth, with growth of the economy, growing consumption from individual consumers and so on. So while there's been increasing talk about the importance of addressing these issues. And while I think there's been more appetite to take these kinds of things on, on the political level, many would argue that we haven't necessarily seen enough action. And Peter, as you already mentioned, we are seeing in terms of metrics like climate change and with biodiversity loss, we are increasingly sort of on the precipice of the global ecological crisis. So this is certainly something that I think we're going to need to seal a lot stronger law and policy on in the future.

[00:13:05] **Peter André**: Thanks Angela. That was a pretty comprehensive overview of a lot of the key instruments. And it's interesting that you mentioned the CEPA in particular as one of our key pieces of environmental legislation. I understand that's currently being reviewed by the government as part of a, a regular review cycle to see whether it's doing what it should be doing and how it needs to be updated. And then your, your final points around the ecological crisis we're in - clearly it's not only in Canada, but

globally there are many environmental problems for which our legal frameworks and policy frameworks still not doing enough. And given this context, I just wonder - I'll turn it to you, Heather. If our environmental laws are not always as effective as they need to be, what are the processes in place to ensure that these laws and regulations become more effective in the future?

[00:14:03] **Heather McLeod-Kilmurray:** So you mentioned the revisions to the Environmental Protection Act. That's exactly right, we are in that process. So to be technical section 343 of the Canadian Environmental Protection Act 1999 itself makes it a legal requirement to report and review to Parliament the administration of the act every five years.

[00:14:27] So the most recent review began in 2016. And the Standing Committee on Environment and Sustainable Development undertook a study and it heard written and in-person submissions from a very wide range of people and groups and stakeholders, including many academics. And it submitted a report in 2017, and then the government responded to that it's own report later in about six months later, and then a followup report in 2018. So that happens every five years and recommendations are made to make improvements to the Act or to regulations pursuant to the Act or to various policies for implementing it.

[00:15:08] In this particular series of, this particular five-year cycle revision, there was a lot of emphasis on environmental rights and whether that was sort of a paradigm through which CEPA 1999 should be understood, should be implemented et cetera. So those reports are all available online in terms of how we're progressing there. Another sort of institution is that we have at the federal level of Commissioner of the Environment and Sustainable Development under the office of the Auditor General.

[00:15:42] And that commissioner of the environment and sustainable development issues, regular reports, which are kind of what they themselves call performance audits on the environment and sustainable development achievements of the federal government. And so this commissioner is supposed to provide objective independent analysis and recommendations about how the federal government is doing in terms of environmental protection. and so they monitor a sustainable development strategies. They do targeted reports on particular issues, for example. Another thing that that commissioner is responsible for is the environmental petitions process. So under that process, any individual or group can bring a petition to the commissioner. And the commissioner will assess the petition, forward petitions that they think are viable to whichever department is responsible for the

issue being complained about, and then the minister responsible will issue a response. And so those responses and petitions can be made public online. And then the commissioner also reports to parliament every year about that whole petitions process. So that's another tool that's there in terms of monitoring and reporting and hopefully leading to improvement. There's similar structures at the provincial level as well.

[00:17:08] Then, of course you have the role of civil society. So the civil society can provide input on these legislative reviews. There are things like under the Ontario Environmental Bill of Rights, there's also opportunities for participation and various tools of enforcement. We have organizations like Ecojustice that litigate environmental issues in the public interest that sometimes can try to require the government to take further steps or to improve on its performance. and in terms of access to information for civil society, we have environmental registries at both the federal and provincial levels.

[00:17:47] And so of course we also have litigation in administrative law or tort law or in other areas to try to challenge if people are of the view that laws or standards or permits are inadequate or are leading to unacceptable pollution. Hopefully we'd like to think that academia also has some role to play in terms of critically appraising the various regulatory regimes and behaviours of governments in Canada. And so those are just a few of the tools that are available.

[00:18:23] **Peter Andrée:** Thanks, Heather. That's really interesting. You mentioned this idea of environmental rights in the CEPA of 1999, as at least as it's coming up in the review process as something that may be, should be considered as part of the CEPA. Can you say a little bit more about that? What do environmental rights mean in this context?

[00:18:44] **Heather McLeod-Kilmurray:** Oh, that's a really good question. And so basically the fundamental idea is that the Charter of Rights and Freedoms protect all kinds of rights of Canadians, but we don't actually have a right to a clean environment in Canada.

[00:19:00] Now, I should say that the Quebec Charter of Rights and Freedoms does provide environmental rights, but at the federal level, the federal Charter does not, whereas hundreds of other countries do in fact include environmental rights, even in their constitutions, in some cases. So Professor David Boyd has done an extensive analysis of that constitutional environmental rights in other countries and their level of effectiveness in actually improving environmental protection. So there have been various attempts. For example, the David Suzuki Foundation had the Blue Dot Program in an effort to try

to get environmental rights included. One tool can be an environmental bill of rights at the federal level, similar to the one in Ontario. Of course the, some argue that we should actually revise the charter to include an express right to the environment.

[00:19:55] And then there's some debate about how that even if we were willing to do that, how would that right be framed? Should it be that human beings have a right to live in a clean and healthy environment, for example? Or should it be that, the government has a duty to provide a clean environment for humans? And then going even further in some constitutions and other countries it's nature itself that has right. So Mother Earth has a right to exist and to remain sustainable, for example, and it's humans that owe legal duties to the planet. So these are some of the very interesting issues in the realm of environmental rights that are being discussed right now.

[00:20:41] **Peter Andr e:** So, as I understand it, we're going from a fairly narrow conception of environmental rights around which a lot of this legislation is currently based, that assumes you are a specific type of being that is impacted by whatever negative activity is going on and thereby have a right to intervene. And often that's a fairly narrow group of people or corporations right now. And then of the options you mentioned, some are still anthropocentric, but allowing a much wider group of the public to be able to claim and assert their environmental rights. And, but some of these options are really about moving into more ecocentric direction by allowing rivers or forests or nature as a whole to have be seen as a right-holder. So that's really interesting.

[00:21:33] **Heather McLeod-Kilmurray:** That's right. So, I mean, some such as my colleague, Lynda Collins, and many others have argued that the Charter of Rights, for example, the right to life and security in section seven, should be read to include a right to the environment because with the increasing crisis of climate change, that can affect our security and ultimately even our life. Some have argued section fifteen - in some litigation there has been an attempt to argue section 15 which is equality rights, which talks about environmental justice. That some people are subject to environmental harms to a much greater degree than others. So that's an equality problem. And then of course there are Indigenous rights in section 35 that can also be used in some cases to protect the environment. And then as you said, some jurisdictions have given rights to rivers or to particular pieces of the ecosystem. So there's lots of variety.

The Ecopolitics Podcast - S01E07: Canadian Environmental Law and Policy

<https://www.ecopoliticspodcast.ca/episode-7-canadian-environmental-law-and-policy-3/>

[00:22:27] **Peter Andrée:** The overview you provided of the various mechanisms whereby legislation gets reviewed is really interesting to me. And then you of course mentioned the legal mechanisms through litigation and that there are civil society groups like Ecojustice that you mentioned that actively try and advance environmental law in Canada by very selective and litigation to strengthen environmental law. What you didn't mention but I think it's worth mentioning, given we're speaking to mostly political science and political studies students is of course the role that new legislation can play and the role that parliamentarians and the whole parliamentary system can play in introducing new tools moving forward into the future.

[00:23:21] **Heather McLeod-Kilmurray:** Yes, absolutely. So there was a very interesting case, the Kyoto Protocol Implementation Act, and that's a very interesting story that students may have time to explore. Where a backbencher had proposed this legislation, the Kyoto Protocol Implementation Act that made it an enforceable duty on the government to meet its Kyoto targets during the Harper government years. And amazingly it was passed through both houses. And then when of course the government did not comply, there was immediate litigation in relation to that. And then the legislation was ultimately repealed by the Harper majority government. So that's a very interesting story of the interlinkages between politics and law.

[00:24:09] **Peter Andrée:** Great. And speaking about politics and law, I would like to pose a question to you Angela. Environmental law has clearly evolved over time with legislation being introduced or updated over time and the Kyoto implementation act as a really good example of that. I wonder if you can give us a general sense of how Conservative versus Liberal governments in Canada have approached the implementation and enforcement of environmental legislation over time. Are governments of one political stripe greener than the other, or does this depend more on the context of the times they are governing or maybe it's some other factors?

[00:24:45] **Angela Lee:** Right. So this concept of sustainable development, as we've already discussed and balancing these kind of three pillars of environment, economy and society can and have been interpreted in some very different ways. And so, unfortunately, economic growth and environmental degradation under the current political and economic system that we live within are quite closely connected. And so with some governments that have been much more bullish about economic growth, environmental degradation has kind of been a necessary side effect. But ultimately people in power, often times, have a vested interest in upholding the status quo, which means that both Liberal and

Conservative governments have an interest in continued growth and profit making. And that is reflected in their environmental records. And so cuts to environmental programs have been made under both Liberal and Conservative government. So there certainly isn't one, one of the major political parties in Canada in any case, that has been visibly superior to the other.

[00:25:51] And as you've already sort of mentioned this, this does kind of differ depending on the context of the times that they are governing within. And so, as we're seeing now, much more of a public concern about the environment, it seems far less likely that any government, regardless of their partisan affiliation or whatnot would be able to get away with running on a platform that doesn't consider issues like climate change, issues like biodiversity to some extent. But unfortunately, Canada is also operating in a particular context because extractive industries, things like agriculture, mining, oil and gas and so on have historically been a significant part of Canada's economy. And even though they might not necessarily be as important to Canada's GDP anymore, they do continue to exert a significant degree of political influence. And I think that this is something that we have historically seen as well. And this is something that emerges a lot in sort of the food and agriculture space, the power of the agribusiness lobbies. And this is something that I think is going to increasingly be a political issue that is on the agenda.

[00:27:07] Developments at the international level can also provide an impetus for domestic action. So things like the World Commission on the Environment and Development and various other kinds of United Nations efforts have stimulated developments in Canadian domestic law. And we have seen some progress in this respect, both domestically and internationally. So one of the major sort of wins for environmental law that people often go back to is the 1987 Montreal Protocol on substances that deplete the ozone layer. So there was a point in time when we were quite concerned about this ozone hole that we were seeing, and this protocol did go a long way towards addressing that issue and reversing the harm that we had caused. So that, that is kind of a win that we have seen in terms of environmental law.

[00:27:56] But long story short, federal interest in environmental issues does sort of fluctuate and change in character depending on the context. And depending on the particular people that are in power and what else is going on at the time. So environmental laws and policies and action on such policies as well, usually tracks with broader public concerns with respect to the environment, as well as

the government's overall economic agenda. So these are two pieces that are quite significant in terms of shaping the direction of environmental law and policy and action on environmental issues.

[00:28:33] And so we can see this in the context of some contemporary issues that are very timely. And I think that right now we're at something of a pivotal moment. So we've seen these pipeline protests in Canada in the early part of 2020 with respect to the construction of the Coastal GasLink pipeline through the unceded territory of the Wet'suwet'en First Nation in BC. And that was quite significant in terms of the impact that that had, those protests had. Climate change is obviously a hot topic issue is going to continue to be a political issue. And the associated litigation that is coming out of that, both in Canada and in other countries around the world.

[00:29:14] The COVID context has also been illuminating, both at the federal level and then at the provincial level, there have been a number of significant developments as well. So Doug Ford's government in Ontario suspended a number of environmental protections in April citing the argument that these kinds of environmental protections could slow down the pandemic response. And many people were very concerned about those rollbacks. The government did revoke some of those changes in June alongside the economic reopening of the province, but it was kind of an ominous time. And similar things are happening across the border with the Trump government and environmental rollbacks there. And more broadly, the Ford government has been identified as one of the most damaging provincial governments in terms of the environment and things like that. So ultimately the politics do matter, but there are a lot of other forces at play as well.

[00:30:13] **Peter André:** So far we've been talking about environmental legislation mainly as set by the federal government in Canada. Now, what are we typically referring to when we speak about environmental policy and how is this the same or different from environmental law? Heather, I wonder if you could speak to this?

[00:30:29] **Heather McLeod-Kilmurray:** So, I mean, in a very, very technical sense, sometimes people divide law and policy in the sense that law can be limited to legislation and regulations pursuant to it or case law as well as international treaties, for example, that would be very, very technical approach to what's law, versus policy can generally be broader, but of course, policies lead to legislation as well, or laws can be the embodiment of policy goals as well. So there is a very close link.

[00:31:04] But when we talk about policy, we can broaden it out to what sometimes referred to as the broader policy tool box. So it can include things like the budget, the federal budget. It can be obviously a policy tool and greatly influences how much of a piece of legislation gets enforced, whether regulations come into effect, whether enforcement takes place and is effective, et cetera. Policies like the climate change policy, as reflected in, as we've mentioned several times today, already the Pan-Canadian Framework on Clean Growth and Climate Change. So this is a policy framework that the Trudeau government put into place to try to enhance collaboration on tackling climate change across the country, through all of the jurisdictions.

[00:31:55] Other things that can fall under the policy umbrella are things like guidelines and standards. Some of these are not legally enforceable, but they're very frequently used to try to achieve certain environmental goals or behaviours. Other things are administrative arrangements. So even under the legislation, the Canadian Environmental Protection Act 1999 does allow for administrative arrangements so that federal provincial actors can agree ahead of time, how to administer something, work sharing arrangements in order to make inspections and environmental assessments more streamlined, more effective, more - sort of less cumbersome, for example.

[00:32:42] Then you can also talk about other market based mechanisms. So I've mentioned the budget, but there's also things like taxes, emission trading schemes, investment policies that favor greener production or green technologies, et cetera. So those are some of the types of policy tools that go beyond strict legislation or case law, more technically legal enforceable things. And a lot of environmental behaviour in Canada is guided by these policy tools.

[00:33:22] **Peter Andrée:** Cool. Angela, I'd also like to ask you a question about how environmental law and policy changes over time. In your research, you've considered how Canada responds to emerging technologies to ensure that they're safe for Canadians and protect the Canadian environment. Can you provide an example of such technologies coming through innovation pipelines and how Canada's laws and policies respond to new technologies? Do we have a system that's adequately prepared to deal with constantly evolving technology?

[00:33:52] **Angela Lee:** Yes. So this has been a major topic of my research in the past few years, particularly in the context of novel foods. So new technologies, new innovations that are being

developed in the context of food and agriculture. And there are some specific applications that I've looked at quite closely.

[00:34:10] One of which is genetically engineered animals. So, with particular reference to the AquAdvantage salmon, which is a genetically engineered salmon that has been approved for consumption by regulators in both Canada and in the United States. So that happened a couple of years ago. And then I've also looked closely at in vitro meat, lab-grown meat, clean meat, it's referred to by a number of different names in the literature. But this example is more hypothetical in the sense that although there are a number of companies that are working quite intensely on research and development and hoping to bring their products to markets, quite too many of them have timelines projected as early as this year, next year, they still are not yet a commercial reality. And so I've looked at the existing regulatory framework around novel foods and how this might apply to products of cellular agriculture, but that's still a little bit of an unknown. So in terms of my response to this question, and in terms of a more concrete response, I'll talk a little bit more about the AquAdvantage salmon.

[00:35:16] So this is something that people are often surprised to learn about, which I think points to a major problem, which is that there are a number of significant stakeholder groups that were left out of the conversation, or just totally not consulted, in terms of the approval process of this development and this certainly isn't something that was kind of rushed through. So this is a development that has been in the pipeline for quite some time. And from the company's perspective, I think they would say that they've had to jump through a lot of bureaucratic hoops to get this product to market. And yet I think there are a number of really significant gaps. So first is that sort of public input and public participation component. So from sort of a democratic governance perspective alone, I think there's issues there. But then also from the perspective of environmental and human health considerations, there isn't yet a robust regulatory framework to ensure that these products are safe for the environment, very broadly speaking, and also safe for human health, also broadly construed and over a long time period.

[00:36:25] So right now the regulatory framework that governs genetically engineered animals, genetically modified animals is very kind of ad hoc. And although it makes sure that these things are not toxic, that they don't pose allergy concerns. So according to the regulatory review, Health Canada says functionally, the genetically engineered salmon is equivalent to just a regular salmon that you would buy in the supermarket. But again, this is along very specific narrow metrics like toxicology, allergenicity and so on. And there are many people that have pointed to the fact that there are a lot of other

considerations that we should be looking at. So things like the economic impact to Canada's fishermen and so on. And then also in terms of impacts to Indigenous people, many for whom salmon is an important part of their cultural heritage and Indigenous groups were not consulted on the approval process when it comes to the AquAdvantage salmon. And then of course the environmental impact as well. So the AquAdvantage salmon is actually grown out in land-based aquaculture facilities. So they aren't growing out in open water, which the company argues mitigates concerns related to release into open waters and interbreeding with wild fish populations and so on, which would be a major cause for concern. But just because the risks are mitigated to a significant extent does not mean that the risks are not there. And so this essentially comes down to what kind of appetite of risk we have for these kinds of products and these kinds of developments, and then who gets to have a say in that process.

[00:38:05] So in my research, these are some of the concerns that I pointed to when it comes to the regulatory framework that exists right now for these kinds of food innovations. And then just more broadly speaking, I would argue that technologies are not a silver bullet. And right now a lot of the rhetoric that we're seeing around technology and innovation seems to suggest that new technologies and these new innovations can kind of leapfrog over a lot of the really deeply rooted social and economic and political problems that are kind of at the core of the situation that we find ourselves in. And certainly there are a lot of examples that we can point to of technologies that have made really grandiose promises and then have not lived up to the expectations, and indeed many of them have caused problems that were not anticipated from the outset.

[00:38:57] So I think we need to be really careful about relying on technologies to solve some of these really systemic problems that we're facing. And not only, not only because of the problems that they can cause, but also because this reliance on technology can stymie the imagination and development of alternatives. So alternative pathways that might be less lucrative from a financial standpoint, but that might be more realistic, that might be more feasible, that might have less risks, that might have less impacts to groups that are marginalized and so on and so forth.

[00:39:32] **Peter André:** That's a really interesting answer, Angela. And I think it opens up a lot of different questions and avenues of exploration for our listeners who want to get into these issues. I think the points you're raising about how, the place that technology figures in our culture, where we assume that the solutions say to the climate crisis or biodiversity crisis are going to lie in technology and technological innovation is in itself something that I think deserves some careful, careful rethinking as

we think about environmental politics as a whole. And I also wanted to just connect something that you said with a point Heather made right off the top, when she talked about the anthropocentric normative bias within our policy and legal systems. And we see it again in the case of this GM salmon where yes, there are some really important environmental and potential health implications for people, cultural implications, as you mentioned, Indigenous people and I would argue maybe most of BC sees that salmon is such an important cultural artifact for all its people. And then there's the question of what does this mean for the salmon themselves? And I think this is getting into that sort of more ecocentric direction that Heather was talking about.

[00:40:53] I'll just mention a book that I've been reading this summer called *Being Salmon, Being Human* by Martin Lee Mueller, which really tries to explore what this salmon and aquaculture industry as a whole, never mind GM salmon, might look like and mean from the point of view of the salmon themselves. And you know, they're a fascinating species that are connected to the, you know, the core of our planet electromagnetically in ways that humans don't have a sense of, literally a sense of. And and it's really interesting in some of this current work to see how, what it means to think in a different way about the more-than-human, rather than this kind of narrow environment as a place of resources and tools for people.

[00:41:43] I'd like to close by giving you each a chance to mention any final challenges or issues or opportunities that you think students interested in environmental law and policy in Canada should be tuned into. Where do you see this field going into the future? And what would you encourage your students to be paying attention to as they think about the remainder of their education or the next steps in their careers? I'll pass it over to you first, Heather.

[00:42:06] **Heather McLeod-Kilmurray:** Great. So I think that some of the challenges that we see are issues of enforcement, issues of cumulative effects being taken into account, this idea of the non-regression principles so that, you know, once we have environmental laws that we can increase and improve them, but we can't go backwards and repeal them. This is a big principle that's being discussed in international environmental law, and that's actually quite relevant in Canada. For example, some of the repeals of legislation in Ontario that have recently occurred in the litigation going on in relation to that. So those are some areas that people are aware need a lot of work.

The Ecopolitics Podcast - S01E07: Canadian Environmental Law and Policy

<https://www.ecopoliticspodcast.ca/episode-7-canadian-environmental-law-and-policy-3/>

[00:42:53] Critics of the system - so David Boyd wrote a book called Unnatural Law several years ago, where he sort of diagnosed Canadian environmental law and then provided prescriptions for it. And as Angela mentioned, he said that there, of course, it's really important to be an 'optimistic environmentalist', which is another one of David Boyd's books. And he says that we have - environmental law has helped with ozone depletion, protected areas, some kinds of air and water pollution, but that it's still hasn't done what people like Michael M'Gonigle from the University of Victoria have called for in his 'green legal theory', which is to really tackle a liberal democracy, to tackle, or at least unpack, you know, globalized capitalism and see the patterns of production and consumption that are at the heart of all of this. And, this idea too, that traditional environmental law has really relied on the government to legislate, to solve everything as opposed to a more multi-participant multilayered approach to trying to resolve all these sort of underpinning issues.

[00:44:06] So in terms of, of going forward for students, I think it's just important to realize that hopefully whatever undertaking you engage in, whatever rules or positions you have in the future, it's very likely that it will somehow affect or be affected by the environment. So trying to understand all the multifactorial aspects of sustainable development and all that's required. So taking a broad education. So not just staying within narrow environmental law, but understanding issues of the economy, understanding corporations, understanding global injustice and distributional unfairness. All of these things are going to be important in trying to make the systemic changes that we need. So I think these broad and interlinked ways of learning are really important for people who are trying to be agents of change.

[00:45:04] **Peter André:** Those are great points Heather, the idea that the law doesn't act on it itself, right, or in itself, and, and is part of a broader social mores and political changes. And so there's many ways to work to affect change, and you need to understand the economy and how change can happen within the economy in order to think about law and vice versa. I should also add that those books, you mentioned David Boyd's books and Michael M'Gonigle. We'll make sure that we have them sort of in a little bibliography attached to this podcast.

[00:45:46] **Heather McLeod-Kilmurray:** Great. There's another really fun one that Michael M'Gonigle wrote called Planet U, which is about the role of university specifically in achieving sustainable development, which is a really fun read.

The Ecopolitics Podcast - S01E07: Canadian Environmental Law and Policy

<https://www.ecopoliticspodcast.ca/episode-7-canadian-environmental-law-and-policy-3/>

[00:45:57] **Peter André**: Yes, I read that book years ago and was very inspired to think about how changes within our institutions can, you know, represent larger changes in society that we'd like to see. And it's maybe a sphere that we're, we, those of us in these institutions can act in more quickly.

[00:46:16] **Angela**. I'd like to turn to you. Do you have any final thoughts on challenges, issues, opportunities, students who are interested in this area might be thinking about or that you encourage them to think about?

[00:46:28] **Angela Lee**: Yes. So I would like to build on the discussion that we were just having about the role of institutions and the role of education and so on. And I would also like to try to end on an optimistic and positive note despite being something of a cynic myself. So for me, I became really interested in environmentalism when I was an undergraduate student myself. And this is something that I've obviously carried through into a career at this point. And so it's really encouraging for me to see other young people becoming engaged in these issues so early on. We're seeing so much momentum for change and just so much more enthusiasm for a different kind of future, that's really being led by young people, which I think is so great and so encouraging.

[00:47:12] And so I continue all of you to keep fighting the good fight and do all of that really significant work that I think is making a real, a real difference and is really important to ensure that we build a better kind of future forever everyone. And as a racialized woman myself, it's also really encouraging for me to see the environmental movement diversify. So there have been charges laid against environmentalism that it's tended to reflect a very particular point of view. And unfortunately, I think in many ways that is still the case, but right now there are cracks forming as well. Especially as we see the sort of resurgence of these intersectional movements, like the Black Lives Matter movement, this growing and growing recognition of environmental perspectives and the value of Indigenous points of view, and also a greater recognition of the harms that have been done by settler colonialism and the things that we need to do as a Canadian society to recognize those harms and to try to do better in the future. And then also environmental justice is another topic that I hope you're going to take on in a separate episode in a little bit more depth, so environmental justice and environmental racism. There's been more attention paid to that. So there are a number of different projects out of various institutions. So we have the environmental justice in Canada research project based at the University of Ottawa that Heather and I are working on as well as Professor Nathalie Chalifour and Professor Sophie Thériault. And then there's also the Indigenous Environmental Justice Project that's based out of York University.

[00:48:51] And then a lot of important work that's come out of other institutions as well. Like Ingrid Waldron. Who's in, who's a professor in the school of nursing at Dalhousie. She wrote a book that was published in 2018, called There's Something in the Water that looks at environmental racism and environmental justice issues in Nova Scotia specifically. And then that was also the subject of a 2019 documentary that Ellen Page was involved with. So that's gotten some media attention and generated some, some more attention to these issues more broadly, which I think is really important.

[00:49:26] **Peter Andréé:** Thanks so much, Angela. I think those are all really great points. And we will also put some of those links to the environmental justice in Canada project and some of the other uh, things that you're mentioning. Ingrid Waldron's work I'm also really impressed with and it's been very impactful in Nova Scotia and it's such important work on the connections between race and environment. And we will bring this up into future episodes.

[00:49:57] **Heather McLeod-Kilmurray:** One last thing that I think might be fun to follow just in this extremely short term, which is the COVID-19 situation, not only the links between the environment and COVID that going both ways between the pandemic and the environment, but also to keep an eye open, to see if the extreme effects on the economy resulting from the pandemic, if this leads to renewed calls for, Oh, we can't afford to do environmental protection right now because of the economy. Going back to that old I think false dichotomy between the economy versus the environment and that, hopefully that all parts of society will seize this moment to rebuild in a way that enables the economy to recover in a much greener way. So it'll be interesting to see and watch, and hopefully be a part of influencing the recovery strategies and plans, and to make sure that they are achieving, you know, economic justice, as well as environmental sustainability going forward, as opposed to going back to the old model where one is seen as taking away from the other.

[00:51:13] **Peter Andréé:** Great points Heather. And I think this is where I'm going to side with Angela, who said let's end on an optimistic note because I certainly, I certainly see, as you say, we're recording this in the time of COVID, the first summer that we've dealt with COVID, there might be another one and And but all the talk that I'm certainly hearing and not just through my environmental channels, but on mainstream media, on how say Biden's upcoming government potentially in the States is going to look at a reconstruction post COVID how the European Union is thinking about it, how the Canadian government is talking about green infrastructure as an important part of economic recovery. I get a sense that the sustainable development discourse has become so deep in these institutions that we're

The Ecopolitics Podcast - S01E07: Canadian Environmental Law and Policy

<https://www.ecopoliticspodcast.ca/episode-7-canadian-environmental-law-and-policy-3/>

going to see a different response in this economic recovery than, say, even that what came after the 2008 financial crisis. Would you agree with that?

[00:52:18] **Heather McLeod-Kilmurray:** Yes. I think we are hearing a lot of that from many leaders and it'll be interesting also to follow industry leaders and others as well. To have all of these voices connected. I think you're right. I, I hope that I, that you're all right. And I do tend to be more of an optimist that said this will hopefully be a moment of great change in that. But I just think vigilance is always important.

[00:52:45] **Peter André:** I fully agree. And I want to thank you Angela, for ending us with, starting us off on, ending on an optimistic and Heather your encouraging thoughts as well. And you've both given the listeners to this podcast a lot to think about and some excellent context and some big picture thinking about what environmental law and policy looks like in Canada today, some of the gaps, some of the things that doesn't do well, as well as some of the achievements. And you've pointed to lots of different resources and ideas that students interested in this area could continue to pursue going forward.

[00:53:27] So this wraps up this episode of the Ecopolitics Podcast. Don't forget to check out other episodes in the series at ecopoliticspodcast.ca, and please do send us your feedback on these episodes. We really appreciate you hearing from our listeners. We'll also be sure to include links to both of today's guests' websites on the ecopolitics website. So you can find out more about them and they're important to research.

[00:53:52] So thank you to both of you, Heather and Angela. And to our listeners, we'll see you on the next episode.