Nature is the Context for Everything

Janet Sumner

Welcome to the Clear Cut.

[Music]

Janet Sumner

Hi, I'm Janet Sumner, Executive Director at Wildlands League.

Kaya Adleman

And I'm Kaya Adleman, Carbon Manager at Wildlands League.

Janet Sumner

Wildlands League is a Canadian conservation organization, working on protecting the natural world.

Kaya Adleman

The Clear Cut is bringing to you the much-needed conversation on Canadian Forest Management, and how we can better protect one of Canada's most important ecosystems as our forests are reaching a tipping point.

Janet Sumner

Okay. So, Kaya, today we're going to be, having this second part of the interview with Harvey. But what's interesting is that, Harvey, who is a longtime conservationist, is actually in the United Arab Emirates at the Conference of the Parties on Climate Change. And he is the guy who's trying to bring together the two conferences on nature and climate. But what you're also going to hear in this pod, not just, more about the nature climate-nexus and, and carbon accounting. But what I'm really excited about is not

only is he bringing those two things together, but it's actually possible to be a Swiftie and be a climate and nature geek. So in a role reversal here, I'm just going to prove my cred. Kaya, have you ever been to a Taylor Swift concert?

Kaya Adleman

I have not. And I actually had the opportunity to go to the Eras tour at MetLife Stadium this summer with my sister, but I had tickets to another concert. So, um. I didn't get to go. It was kind of, it was kind of very, very sad. But I have been, an avid listener of Taylor Swift's music from a very young age. I remember very distinctly getting the, Speak Now CD for my eighth birthday, from my best friend and listening to it in my, really old computer when you could still, plug in CDs into your computer and then download them onto your, MP3 player. I'm sure that doesn't sound so old to some people listening, but that sounds kind of old to me. I would say that I'm not like a Swiftie because, I'm not a huge fan of her relationship to climate and environmental issues, but I do really, enjoy listening to her music and I think she's a very talented songwriter.

Janet Sumner

Yeah, I was going to, I didn't know you were a Swiftie and now, now I have to confess, or not that you are a Swifty because you're not in line with her, her climate footprint or stance on nature, but, I'll let you know I'm a Swiftie. And I, I, in this case I just look over it. I know that she creates a huge footprint, but I have been to a Taylor Swift concert.

Kaya Adleman

Oh wow, which, which one?

Janet Sumner

I don't even remember what it was called. It was here in Toronto. I took my nephew, when he was much, much, much younger and we both had a blast and we were down on the floor and it was, it was everything it was cracked up to be. So I really enjoyed it. .

Kaya Adleman

I'm very jealous.

Janet Sumner

So you, me, and Harvey all work on nature and climate, and we also have another thing in common, which is Taylor Swift. And Harvey's going to talk a little bit about Taylor Swift or make reference to her and, also talk about, conservation and climate. And we're going to kick it off with, talking about carbon accounting, which is, I know it's not dull to us because we really find it fascinating, we like the numbers, et cetera, but that's where we're going to start the conversation.

Harvey Locke

It's just that people. I mean, what what could be more exciting than let's have a conversation about carbon accounting? I mean, wow, I mean. That's way more. Interesting than next episode of Yellowstone or the the Taylor Swift concert, don't you? I mean, of course it's not. It's it's really geeky and it's really detailed. And and when you get into it people, people say forests. And then the the next piece which is linked to global climate policy that I think is really vital, is that. And and then people talk about this world of in addition to the this deforestation confusion, that deforestation doesn't mean no cutting trees. It just means no converting land to cities or farms. That has also a huge effect on this whole idea of carbon offsetting in nature and planting trees and so on. And people haven't really mapped that out, but we're seeing these big exposes of problems with carbon credits in the Guardian newspaper or in The New Yorker in the last year. And that's all got to do with what I call a flawed foundation to the conversation. And if it's OK and I'm not being too pedantic, I'll walk through why that's such an issue. So because of our concern primarily in global climate policy, in terms of the actions taken and the conversation that occurs as opposed to what the Convention says, but the actions are all about reducing the smokestack emissions or tailpipe emissions, you know that that's where the action is. Everybody talk about that. Parts per million CO2. OK, so one of the things that's been discussed is well, an offset of those emissions, which would come through, say planting trees, say you have a emissions in Stuttgart, Germany from a factory and you plant trees in Indonesia that you can show on a scientific calculation will pay cut of the sky. As much CO2 as that smokestack emitted. And maybe even a little more. So you're showing that that there's something additional happened because of your work planning the tree, and therefore it's a robust carbon credit. So how that tracks across the nature frameworks is there's the top three targets of the global biodiversity framework are protect intact systems to reduce the loss to as close as near 0 as possible through land use. Planning two is restore 30% of degraded ecosystems and three is protect in an interconnected way. At least 30% of the world's land ocean and fresh water. So those are the 1,2,3 targets on the nature side. Well, that idea of emissions. In a factory being offset by a tree planted somewhere far away really serves, assuming you use a native species and this is a big issue in restoration and that you actually want to use species that are from the place. But assuming you did that. The Nets a robust way to help contribute to the goal of restoring 30% of the world's degraded ecosystems and out of that kind of thinking, comes the 2 billion trees program in

Canada. We're going to plant 2 billion trees for. The climate right. That's all based on a property concept called fungibility. And I don't want to be too geeky, but this is important to understand. So when you're in law school, like I was once, you're taught law, that relates to the sale of personal property or goods. So any you know, if I want to. Buy a an iPhone or a Samsung phone and it's model XYZ. And I order 100 and you ship me 100 of that model. My order is fulfilled. I'm happy I don't get to say, oh, I I don't want that one. I want a different serial number. No, no, you get what you ordered. OK. Same with pencils. Same with cars. If you order, you know, a four GMC whatever. Or GMC whatever. Specification and you get that car. You don't get to say no. I don't like that. I want that one built by a different guy in the factory or a different woman in the factory. You can't. OK, so that's called fungible, which means anything is interchangeable. And if if the ship's shipping of that 100 phones went up straight, they ship you another hundred, your orders fulfilled, you've got nothing to say. OK. So that's the basis of the carbon market and carbon credit idea. And this idea of additionality. It works for restoration, you have a degraded system. You can restore it. It's good for nature. It's good for the climate. Hey, nice. It doesn't work at all for intact nature. And intact nature is what runs the world. Most important for the climate most important for biodiversity most important for freshwater, most important for rainfall patterns in the world, by far the most important thing is intact nature. Intact Nature has no additionality. In fact, the system is designed to prevent people protecting intact nature. Because they see that as leakage or no additionality. So then an exception was made well, but if it's under imminent threat destruction, then you can say I avoided deforestation. Remember that word. I avoided deforestation by this investment, otherwise it would have been deforested, which means converting to a city or a farm. And therefore I can also claim additionality. And all of the controversy and carbon credits is around that boundary of additionality and this question of avoided deforestation. And the problem is. That's all driven by thinking about carbon molecules and smokestacks. It's not driven by which places are most important for nature to serve the climate. And you wouldn't be chasing around an additionality question if you were focused on how do we secure the Amazon, the Congo Basin, the James Bay lowlands, the Mackenzie River basins, peat lands and lowlands? How do you secure that to ensure the continuing function of the planet? So. So what we're what we're working on is we're working through a smokestack derived policy rather than a carbon cycle derived policy.

[Music]

Janet Sumner

Harvey's right. I came from the, climate space. I worked for probably 10 years on climate change and I was, very deeply, committed to, to working on climate change. I saw it as one of the biggest issues of our lifetime, an existential crisis threatening the entire planet. And I was working on, a website at the time called climatechangesolutions.com. I was, communications and, and research at the Pembina Institute. And as I was working on that, I hired various people to, produce, information for the new

website. It was back in the dawn of time. It was 1998, I think it was, and until 2003, when the web was still taking off. So speaking about throwbacks. And when I was doing that, I hired somebody to look at, the forestry emissions because we were coming up with solutions on all different industrial sectors on how to reduce their climate footprint or at the time their global warming footprint, I think it was even called. But, but as we were doing that work and we were starting to look at how much carbon was in, the natural world and, how it was being converted to an emission, and what processes, etc.I started to get very intrigued by how much carbon was in the natural world and what was being, changed. And it wasn't a land use change because it was still going to be a forest afterwards. But the fact that we were, logging and clear cutting these areas of immense carbon reserves. And if you went further north, and I started to look at the, the peatlands, and I, I became, astonished at the amount of carbon that we had locked into these ecosystems. And I, I became very worried that, we were blithely treating climate change as if it was only about smokestacks and, tailpipes. And the policy framework and the agreements, the Kyoto agreement that we were at that point, that the liberal government, the, the, J Jean Chrétien government at that time was considering signing and ultimately did, they were looking at it from a very, from my perspective, from a very narrow point of view. And I remember having a conversation with my boss and saying, 'look, we can't just leave this part of the equation out'. You just can't. And I was told, don't worry about it. This is how we're going to get the agreements. This is where we're going to start. We have to address emissions. I agreed with that. And then it was like, and we'll get to the, the nature aspect of this and how it contributes to both the emissions, but also reducing the absorptive capacity of the earth if we change the landscape. And as Harvey's suggesting, bake off the, the layer of nature on, on, on the planet. And it's over 20 years later, and we still haven't, reconciled that. We still haven't figured out, we've, we've got this, as Harvey says, a smokestack derived policy, and it's not a carbon cycle derived policy. So the task really is how do we get in there and how do we fix it? And so I think that this is a really important piece that he raises. And, and one of the downsides of that is exactly what he says is that intact nature doesn't count. So the fact that we have enormous ecosystems like in the McKenzie Valley, the Hudson Bay Lowlands, second largest peatland complex in the world, very dense in terms of carbon, yet it doesn't count if we protect it.

Kaya Adleman

Yikes! I think just to, just to add on to what you were saying there, Janet, is Harvey started off the conversation talking about, carbon accounting, forest carbon accounting, how the system is not working. And I think that kind of ties all back into the reason that the carbon accounting is so flawed is because we're not treating nature and climate as part and parcel, as you've said before, as part of the same, system. And I like that. Everything is just so interconnected and, seems like you can tie back a lot of the cracks in the policy and the cracks in the system back to that central idea.

Harvey Locke

And then we get into, well, you're cheating the system because there's no additionality. And so if you read those guardian articles or you read the article that was in The New Yorker recently, about South Pole, you can see that all the issues. Around debates about whether they were truly under threat or not. They're not about were these good carbon rich projects that they did. And they were so. So they're considered bad projects because all they did was protect intact nature. And you gotta give your head a scratch and say, my goodness, we're off course here. Yes, you shouldn't be able to make false claims of additionality, but surely you should be able to protect intact nature as part of your objective to keep the climate system running, because that is what the climate system depends on. Well, you can't because of these rules and because of this concern that all goes back to only thinking about the smokestack, which we must do. No, no, no, no argument about that, but we gotta think about the whole system and how it works. And we need to incentivize private business to invest in intact nature. Which is a big conceptual issue, because right now, nature's worth lots of money dead, and it's not worth anything alive. I'll repeat that. In our economic system, nature is worth it a lot dead and worth nothing alive. And if it's been taken out of the carbon system or the cycle or out of the functioning of the world and converted to a commodity, one of those fungible things, it becomes valueable. But it's not valuable if it's doing its job of keeping the air we breathe, and the rain we depend on, and the water flowing, and all of that going. It's not worth anything. That's a failure of our economic system that we need to fix. And it's just, you know, there it is. Let's fix it. Let's focus on fixing that. If we want to keep the climate. System running. We better keep all those big storehouses of carbon and intact nature there, and we better add to them and do better. Do some restoration and we can use offsetting as part of the restoration. But we need to do something that focuses on how do we pay for intact nature and keeping it there because the economy is entirely dependent. Everyone's capital is at risk on this earth because of the degradation of the natural world, and you know, outfits like the World Economic Forum have issued reports saying half the global economy is directly dependent on nature. Wow, that's a big number. Well, of course it's a big number, actually, all of it's depended on nature because the other parts are still depending on people breathing and eat. And drinking water. But there's a direct dependency that you can even show on on nature and the other half of the economy, it's just stunning and it and it it's an externality we want to talk about it. And it's like, no, no, this is the centrality. It's not an externality, it's the centrality. It's degrading and terrifying ways. And our responsibility is to recognize that and adopt it and, you know, going back to the conversation about Recon. Relation, who thinks already that we need to think about our relationship with the natural world is one of mutual responsibility, not one of commodity, well, traditional First Nations people think like that. By the way. So do traditional people from India. So do traditional people from China. So do traditional people from South, from Africa. And what's weird is only the Western mind has managed to detach itself in the last 2000 years from this reality. That's what's made us super rich, because we could convert our thinking to commodities and extraction and now it's making us poor and imperiling us. So let's adjust our thinking and remember that most people actually think this other way, that we're in a relationship with nature, and we need to be too. And then we need to think about how our economic systems. Start to reflect that reality. And we're not doing that and we're, you know, you just it's astonishing to watch how the conversations are not these ones about our common interest, about how we keep the system running. They're about debates over, you know, additionality and

whether you were cheating it and everything else. And so we've just lost the plot and and we must do those other things absolutely reduce emissions, reduce emissions, reduce emissions. I'm 100% there. But if we don't think about the whole carbon cycle, we're actually not tackling the problem. And from a nature point of view, you know the how does nature work to be part of the carbon system? Well, it works through all the species and the ecosystems and the interactions of all the parts, which is goes back to how you and I met Janet because you crossed over to the nature space because you were a climate concerned person. Cause you could see this right? And as a nature person and I became aware of just how fundamental it was to the whole climate conversation and and. And the flip side is as we change the climate, we're baking nature off the surface of the earth. You know, we're moving it around. We're killing it. We're eliminating what are called thermal on slopes for species. So some species can't live in these higher temperatures where they live and they can't move fast enough to get to a cooler place and I mean it's creating havoc on the natural world. Well, naturally, it's because it's all interconnected. It's it's all the same conversation nature. And the climate is the same thing. As different things that are policy, things that are around it. But it is the same topic and yet it's treated like they're two different things from ones from Venus and one's from Mars, or I don't know what the right metaphor is. And they're the same topic.

[Music]

Janet Sumner

I mean, what's your sense, Kaya? You know you're from a different generation than I am. And I'm probably even not representative of my generation, or certainly in terms of even the climate folks out there, not representative, because we still haven't knit those two issues together. So, did you think in this way before you started with Wildlands League? And if does your family, friends, or how do we start to break that down? Because certainly we saw big wildfires and immense smoke coming out of our forest this summer and blanketing northeast of the continent down all the way from, you know, Ontario and Quebec and all the way down to Washington, DC. this summer. So we sure as heck know that there's a trigger there from climate change causing these fires and then having them emit, all this carbon into the atmosphere. So there's definitely a relationship, I'd say. Maybe that might be a lesson from that. But, I don't know, how do we start to penetrate this? How do we start to create this awareness that the issues are not different?

Kaya Adleman

Yeah, I mean, I think the podcast is one way to go about it. But back to your initial question. Yeah, I would say growing up, and I think I became passionate about and climate change specifically, from a

pretty young age. And it was interesting, I think what brought me to climate issues was because I wanted to when I was thinking about my what I wanted to do when I grew up. Maybe when I was like, in junior high or something, was I wanted to think about how I could use my skill set to make the largest impact on the world and climate issues touch kind of every facet of society. Like climate and environmental issues touch, economic issues. They touch, issues related to wealth and equality. They touch issues related to racism and environmental justice. And so I wanted to think about ways that I could, kind of be able to touch these different facets of societal problems. So while I was kind of thinking in that, that holistic way, I wasn't thinking about nature and climate as being, the very same issue at all. And I don't think that I was thinking that way until probably studying at McGill. I was lucky to have a few professors who really kind of honed in on this idea that the natural world and climate systems are very, very interconnected. I do think working at Wildlands League has kind of broadened my eyes more to the idea or to the fact that policy is not in tune with this idea at all, and that it's becoming more and more pertinent, every day. And then back to how do we get people to start thinking about this more? I think it's definitely going to be hard. I think because the issues have been separated for a very long time, it's hard to bring them together, especially because the market, is oversaturated with green tech startups that are looking to solve smokestack emissions problems from a very climate space centered view. So I think that it definitely is a challenge that we're facing today.

Janet Sumner

Yeah, I think that's a great point. And one of the reasons I like working with you is because you have a systemic way of looking at the world and thinking about problems. And I think that last point that you just made, that there's a lot of startup tech companies that are trying to solve the climate change emissions profile of various industries. And that's true. And I'm glad that they're doing that. But at the same time, if we're myopic and that's the only focus, we could be doing that at the same time that we're literally removing the Earth's capacity to remove carbon from the atmosphere. And that essentially shuts down the carbon cycle. That's a problem.

Kaya Adleman

You're spinning your wheels.

Janet Sumner

Yeah, let's keep going with the conversation.

[Music]

Janet Sumner

Harvey, I want to pull on the thread. You in passing. You said that restoration could be used for offsets. So do you think that one of the challenges that we have right now is that, because the system is almost entirely designed around whether or not you're going to offset an emission that nature is sidelined from the conversation because it's seen as cheating if you're protecting intact nature and I know you have a solution for this, so I'm just going to. Lead you into that.

Harvey Locke

Yeah, well, well, yeah. You just highlighted the problem because if you if if you think the only problem that you have on the climate is the smokestack. Then you end up with the. Architecture we have now. If you think the climate problem is the carbon cycle. Which is what the Convention says it is. Then you would be thinking about all of these things together. So that's the first conceptual shift we have to make. Read the convention, read the science, and it will all say this. OK. And it will say reducing emissions, reducing emissions is vitally important because we're doing way more of that than we should, not saying for a second that we should, but how nature can play into this, Janet. What if going back to value propositions? You know, there's this other thing you learn in law school. You learn about the law of personal property and all that which I was talking about fungible goods. And then you actually cross the hallway to a different professor who teaches you real estate law. And the real estate law professor tells you forget everything you learned over there for real estate, it's location. Location, location and you can actually compel the place you bought to be conveyed to you. If somebody breaks their contract. What do you mean by that? Well, it's because. If you have the house you're in there, Janet, in Toronto. And you take the exact same house, same finish, same shingles, same square footage, same carpets, everything. And you take that house and you drop it in Antigonish, NS. It's not worth the same. It is in Toronto. It's because it's. Part of the place it's affixed to the Earth, it's part of. Oh my goodness, it's actually an aspect of nature. And nature is always play specific. You can't trade a zebra for a tiger. Or a grizzly bear for a Caribou. They're not the same thing. They perform different functions or frogs for bats. They all perform functions in life, and you can't make an exchange like you can with telephones or pencils. So we know how to value the real estate market, the foundation of much of the world's wealth is real estate. It's not like we don't know how to attach value to real estate. We just haven't figured out how to attach value to real. Estate when it runs the world. So the one of the metaphors I like to use is, so all of our architecture about financing nature and the climate connections. Is doing something very important, which is this restoration stuff and I'm not dismissing diminishing the importance of restoration. For example, in Europe, restoration is a primary strategy. But in Canada, restoration is only super relevant in the cities and farms landscape. And what we really need to do is

protect a heck of a lot more intact nature in the. Middle and north. Of the country. That's how we can make the biggest contribution. Restoration is matters, but it's nowhere near as important as hanging on to the big pieces. We already have. Same in the Amazon. Same in the Congo. And so you know the the what we're doing right now with our policy as it relates to climate and nature and offsetting and all that is we're saying you know. Let's take say we have a car and the car safety is very much affected by whether or not they're good headlights, good side mirrors, good tail lights. So you don't want to let those run down, right? You need wipers that work. You've got to keep your maintenance up on your car. And if they're broken, you gotta fix. But we're not focusing on whether the engine is running or whether the transmission works or the drive train turns. We're just focused on the mirrors and the broken pieces. We're not focusing on the piece. It still works and a car is no good if the engine seizes up. And that's our problem is what's running right now intact nature which is running the world to the extent it's running is not valued and is continuously being degraded. So if and it leads to policies like we have a 2 billion tree planting program in Canada and we cut down 600 year old trees the same day. And it's because we haven't thought this through. We're stuck in this language of additionality and stuff and it's like if you were thinking about the carbon cycle like the convention asked. You to you would. Never cut down 600 year old trees. And you wouldn't say ohh I have a priority on tree planting in Southwestern Ontario on trees that might in 60 years fix some carbon.

[Music]

Janet Sumner

Okay. I'm just going to start with, maybe reminding everybody what Harvey means by additionality or what it means in the current, smokestack derived policy framework. And that is, greenhouse gas reductions are additional and they have to be additional to count if they would not have occurred in the absence of a market for offset credits. If the reductions would have happened anyway, so for example, let's say, I'll give a Canadian example. Let's say you're going to be doing restoration in the forest because it's required under the law that you have to do, you do a clear cutting and then you go into the forest and you're doing replanting because regeneration is a requirement of your license and you have to, regenerate so much, that would have occurred anyway. So that doesn't count as a carbon credit. Okay, but let's say, for example, you're looking at a meadoway that exists in the city, or maybe it's a ravine strategy where you want to do restoration along the ravine and you've decided that you're going to, plant trees like the Two Billion Tree Program. And it would not have happened if there wasn't some kind of way that you were able to count that for its carbon credits. And then that would be seen as additional. So you could say, yep, this happened because I could count it and, and it helped with reducing emissions. You have to be able to measure all of that. You have to be able to, verify it. You have to get it certified. You have to do all those things. But that's the essential nub that the reductions have to be additional to what would have occurred sort of naturally. That you actually did them because

they were going to create a, an offset for carbon. But keeping a place, like, let's say you've got a, I, I've had this conversation many times with forestry companies who are like, you know what, I don't want to harvest all the way to the. Very end of my unit and maybe their, their rationale for it might be, you know, it's, it's kind of expensive or that's not the type of wood that I want for our mill or we can't sell that wood or, or maybe I just have a good conscience and I think I can still operate on this land base that I've already harvested on for the last 80 years. And, and we've got second growth here and it actually really works for us. And we think that that forest is valuable to the local people. There's a, maybe there's a, an outfitter there that we really llike,and we want to keep that forest, or maybe we're doing it because it helps us with our species targets or whatever, and we don't get to count that. You know, it's, it's not seen as additional, even though it's continuing to suck in carbon and all the rest of it. So there's a whole bunch of people trying to think about how do we, and, and let me just be clear on in terms of Wildlands League, like we're not interested in offsets, that cheat the system. That basically offset so that you can keep spewing greenhouse gas emissions out of the smokestack. We're not looking to say, let's count everything and, give you an escape hatch on your greenhouse gas emission reductions. Because as Harvey keeps saying repeatedly, they absolutely must happen. And I don't want to favor one side of the carbon equation versus another, but I want the entire carbon equation to be in our thinking and be part of, whatever solutions we develop. And right now it's not. And so that's the challenge that we have, but I don't want to open the door so that creates a, a great big escape hatch. So, yeah, that's, that's where we'll start.

Kaya Adleman

And just to clarify something for me, in the case of the forestry companies, a lot of the times it wouldn't be counted as additional either because it's not being protected from deforestation, which we know is defined as a land use change

Janet Sumner

Yeah, that's right. So if you were to, protect that forest, well, there's a bunch of questions that come up on that because we've tried to work on this. We've got a forestry company who wants to keep an area, from being harvested, but because it's still part of the forest management unit and it's still technically the land uses designated for forestry, there's no land use change. So because there's no land use change, you don't get to count it as a carbon savings. The other challenge that you have around that is that there's no certainty in perpetuity. In other words, you haven't changed it to become a protected area. There's no guarantee. And, the forestry unit ownership is also, how do you count the credits, et cetera. So one of the challenges, around that is with a forestry unit, you might have the license to log, but you don't necessarily own the carbon credits. The only system in Canada that actually is allowing some First Nations to take advantage of savings or growing trees bigger and maybe more trees or things

like that on, on, previously harvested land in British Columbia. They've got a, a carbon accounting system that actually is, it's not perfect, but it does have more in it that allows, nature to be counted. And it's, solved this ownership problem by saying, yeah, the first nations are going to get, the carbon credits on this, or we're going to share the carbon credits. And so it's got a system that is starting to at least try and address that, the dual aspect of, nature and climate and how they're both the same issue. And I don't have the perfect solution yet, but I'm certainly trying to think through the problem on how we, how we can address, this discrepancy and start to count more. And it also depends on why you're doing it. So for example, if your primary purpose is to maybe, let's say, have an area that's, set aside for caribou, and that's your primary purpose, then you, you can't use it for this because it has to be, demonstrated that it would not have occurred in the absence of market for offset credits, so it's got to be around carbon. It can't just be, oh, we were going to do this for caribou and let's go get some credits or maybe we created a protected area and then you try and go get none of that, work. So maybe we should do a, a, nature based carbon credits 101 in a future episode that might, that might work for folks. And we can interview a bunch of people on that. But I, I, I'd say that there are a number of people thinking around. the edges of this issue, and I think the global architecture has to start addressing it.

Harvey Locke

But you, you're focusing on something that needs doing and you're neglecting completely the thing that's essential to do because you can drive a car still with a broken mirror. You can drive a car with a bad headlight, but you can't drive a car if the engine fails. And right now we're imperiling the engine. And what does that mean? And OK, what are you talking about? Well, take the Amazon. You can find lots of scientific papers that say the Amazons about 20% deforested, most of that is in the South. Where that deforestation has occurred, there's already a shift in rainfall patterns harming regional agriculture. And there's a great fear that if the basin wide deforestation gets to 20%, the process of the forest generating rain, this is really amazing. We learn in school that rain comes from the ocean, falls on the land and goes back in the river to the ocean. Right. That's what we learned in places like the Amazon, the Congo Basin, Southeast Asia, rainforests, the rain falls on those forests, and then the forest itself generates the next. Wave of rain. The big chunk of it, at least half of it is actually water coming back out of the trees, and you can actually see this if you go to these places, you can see the vapor rising and then that falls as another ring and then it rotates and rotates all. The way to the Andes mountains. If we get to 20% deforestation, there are a number of papers that fear that that will shut down. That the system will flip to a Savannah Savannah, meaning a few trees and grasslands. That would have a knock on effect that affects the rainfall patterns that feed the agriculture in the southern hemisphere and as far north as the United States. Because that's how the Earth runs. That's the motor of the earth. The rainfall patterns. Meanwhile, those trees also store vast amount of carbon. There's peat lands in the Amazon that are super important. They need to keep flat. If they dry up, they'll release their carbon. And so because we're not thinking about this, we're actually putting these gigantic physical features. To drive the health of our the motor of the planet at risk. And in my opinion, we should immediately make it a

global priority to figure out how we retain the James Bay lowlands undamaged, how we retain the biggest carbon store houses in nature, like the Mackenzie Basin and Canada, also those old forests in BC, any other fragments of the grasslands or, you know, in tax systems anywhere that are super carbon rich. We should be protecting all of them now. And contributing to global efforts in places like the Congo and and the Amazon Southeast Asia. Because if we don't, the motor is going to seize up. And if that motor seizes up or even changes fundamentally, Oh my goodness. So picture Africa. Congo basin. Same mechanism. Works in the forest there, except even more of the rainfall in the Congo Basin is generated by the forest. All the agriculture to the east of that in East Africa has a heavy dependence on the rain that comes out of there. Now, how about we shut that rain down? Where do those 10s of millions of people go? You think there's a refugee problem in Europe now that threatened the European Union's well-being? We haven't even begun to think about what a refugee problem is. If we're literally stopping rainfall for 10s of millions of people who depend on it. And then this is not the wild fantasizing of the crazed environmentalist Harvey Locke. This is stuff published in journals and people who study this stuff are extremely concerned about. Because it could happen soon. And yet we're talking about whether there's additionality and you know it's and and projects that have protected values like that get criticized because they have no additionality. Well, that criticism only makes sense if you're worried about the integrity of the architecture from a smokestack and restoration perspective. But surely we need to find a way those projects going to occur because they need to occur. And how do we do that? So I've been working with a variety of people around the world trying to think through this difficult question. How do we make nature worth something alive? Not just dead because it is the context for everything. So everyone in the world's capital is now at risk because of these huge mechanisms. We have to make keeping the engine running worse at that, and it's hard to do because the model we have is once turned dead and made into a commodity. You can make something out of it, but how do we make it possible for for the private sector, let's say to put some money in and make a return on keeping systems intact. And how do we get governments help them, you know, guarantee the title or something? So thinking through? What we need now? Is a stabilized earth? What we need to do is meet all of our biodiversity targets and all of our climate targets and our human development targets will never be met if we continue to degrade the underlying system in which all human development targets are embedded. It just simply can't happen if we run out of fresh water, the sustainable development target for fresh water doesn't get it's pretty straightforward. And so we've just got to think like this. and and where where I feel enthusiastic about it and optimistic is. It's kind of hard to argue that what I'm saying isn't true. All you can say is it's, well, it's politically not feasible or it's economically not feasible. And my response to that. Let's have that argument because it better be feasible because every one of us depends on it being feasible or something like it being feasible.

[Music]

Janet Sumner

We can't afford to only look at smokestacks and tailpipes. We are at a very real risk. And I think that's, that's one of the other really big pieces that Harvey says in this piece is we're, we're shutting down the engines. We've got global systems that drive the entire climate. So if your precipitation in one part of the world is shut down or greatly reduced, that affects billions of people and the ability to survive and those ecosystems to thrive, and it will fundamentally change them. Turn rainforest into Savannah. And in Canada, we are looking at, I can tell you this in, in Canada, we've harvested, certainly in Ontario, we've harvested at what used to be a boreal system and we've converted it into a mixed wood. And as we change it from a boreal conifer dominant system into a mixed wood, it changes the very nature of that, the species that can support it, et cetera, et cetera. I think we don't know yet what that's going to mean. We do know that it could actually start to change some of the species mix and we've already seen that. We know that caribou aren't living as as far south as they once did. I mean, we haven't got the forest type there to support it. The fragmentation is too much for to support caribou, etc. So we are changing ecosystems through our harvesting. And we are now starting to run out of the last remaining intact and old growth areas. So what does that mean when we've converted these forests into managed systems, maybe change the ecosystems from a conifer dominant to a mixed hardwood? What does that mean in terms of on a global scale and how does that impact things? Does it mean we're more fire prone? Are we better fire resilient? All of these are questions that I think Canada should be delving into and looking at and having a real conversation. Not something that just is about how do we keep doing what we're doing.

Kaya Adleman

Right. And I liked that Harvey, in that last section where he was talking was also, he uses all of these metaphors, to also kind of equate to solutions. Like engine one, I really like, I personally have a, or drive a 2005 Honda CRV, and I know that if the engine on that gave out, then the car would really be done. So, the engine on that car and the engine of nature is very, very valuable. I liked how he was taking concepts from his legal background to apply it to how we could potentially value nature, because that's something that I would have never thought of either. Like, well how do we create a value for nature in this carbon offsetting, reality that we're now in and it's like, well, we value real estate all the time based on a wide variety of factors. Why can't we do the same for nature? That was kind of like a very, mind opening moment for me.

Janet Sumner

Yeah, and Harvey and I have had separate conversations, and we've talked to politicians about this, decision makers, etc., which is if you look at the great carbon pools on the planet, they are, you know, the Congo, Southeast Asia, Russia, the Amazon, but also Canada's Boreal. And right into the Boreal

peatlands. And so when you say to yourself, okay, so we know that these are great carbon reserves with an ability to pull carbon out of the atmosphere. And if you're, if you're a government that's thinking about carbon capture, I don't know how you could not be thinking about the greatest carbon capture system that we have, which is nature and trying to protect it absolutely as much of it as you possibly can. I mean, how skewed is it that we have a climate policy framework? that acknowledges and values restoration, you know, which it should. But does not value keeping intact carbon stores. And, and in fact, you can go in and be, taking all the trees down in an area, clear cutting an area, and that's not seen as a carbon loss, even though those trees will not be fully regrown by 2050. I mean, that's the current state of our climate policy. And we know that that's having a broader effect on, on ecosystems, et cetera. So we haven't wrestled this one to the ground and it's an existential crisis. We need to figure this policy framework out. What are the solutions? And some of the work that I've talked with Harvey about on these five great carbon pools is, is it time to have an agreement worldwide where we say, we need to keep these big carbon pools in terms of the climate system, we can have a policy framework that works on emissions and climate change. You know, counts restoration and does all that kind of thing. And so maybe you don't tweak that. I don't know. And as again, I don't have the perfect solution, but certainly we need to start saying we need to keep these big carbon pools. And what does that look like? Do we integrate it into the existing system? Do we have it as a separate agenda item? Do we say this is so important that the world has to count this and value this, because it is going to affect everybody's food system, our entire global economy. Do we take it on like that? And I think that these are the big policy questions that we have, and I would invite all of our listeners to be thinking through this lens are, what are the new policy solutions that we could be suggesting and could be thinking about? And I certainly would love to hear from anybody who has a great policy idea or how to how to wrestle this beast to the ground because I don't want to undermine the ability to reduce emissions that absolutely needs to keep happening. But how do we do that at the same time as addressing the very real need to make sure that the entire carbon cycle is taken care of and we're keeping these big carbon pools.

Kaya Adleman

Wow, how do we integrate the nature-climate nexus into our policy framework, that’s a lot to think about! Fortunately for us, this isn’t the last we’re hearing from Harvey, we’ll return to the final part of our conversation with him next week.

Until then, you can learn more about Harvey and the work that he’s doing by visiting his website, harveylocke.com, spelled H-A-R-V-E-Y-L-O-C-K-E .com. and if you want to follow him on your feeds, the links to his socials will be in our episode notes and on his website. Thanks for listening, see you next time!

[Music]

Janet Sumner

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Kaya Adleman

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Janet Sumner

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Kaya Adleman

See you next time!!