Transcript Podcast - Carbon Offsets: A discussion with Didi Pershouse

Hello everyone and welcome to the podcast "Carbon offsets and carbon compensation: A conversation with Didi Pershouse". My name is Siiri Saukas and here with me today on March the 1st I have Adolf Pratsch and Martina Nyman.

We're group of three Hanken students located in Vaasa and Helsinki, and we're interested in sustainability and organising for sustainable change. In today's episode, we will discuss the topic of carbon offset and carbon compensation. We have a very special guest with us who we're going to interview later in the episode, Didi Pershouse. Didi is an educator, a founder of the Land and Leadership Initiative, and the author of two books, "The Ecologic of Care: Medicine, Agriculture, Money and the Quiet Power of Human and Microbial Communities", and "Understanding Soil Health and Watershed Function.

Carbon offsets, net zero emissions, carbon neutral... These are promises and labels that we hear more and more in today's world. Some of the biggest companies like Amazon, Shell, Unilever and Google are using offset programs to reach their sustainability goals. These ambitious promises sound great, but as average people wanting to save our planet, we want to know if the promises are true, do carbon offsets even work? Didi Pershouse is an expert in the fields of regenerative practises, land restoration and water restoration. But she's also well-educated on the complex issues of carbon offsets and certifications. Therefore, we are so happy to have a chance to talk to her today.

Hi, Didi. Thank you for joining us today. And thank you so much for taking this time to speak to us and tell us a little bit more about your work, as well as today's topic, carbon compensation. So welcome Didi!

Thank you. It's good to be with you all.

We're really looking forward to delving into your expertise and explore the details of carbon compensation today. But before we start, could you start by telling us a little bit about yourself? And how did you get into this field as well as the Land and Leadership Initiative? And even tell what the Land and Leadership Initiative is for them who don't know yet.

Yes, so I live in Vermont in the United States. I grew up in Cambridge, Massachusetts, which is a kind of an intellectual center you know that Harvard and MIT and a lot of interesting thinkers there. And then lived in New York City for 10 years and Seattle for a couple years

before moving to a very small rural community in Vermont. You know, 2500 people. So, I have a little funny perspective from both sides of that. And I worked for 22 years as a holistic health care provider in town, so I had a small clinic. And for the last nine years of that time, I was writing a book called "The Ecology of Care" and the subtitle of that is "medicine, agriculture, money and the quiet power of human and microbial communities". And it started off as a book about sustainability in the healthcare field. And in particular, looking at whether our health care system was sustainable in the face of fluctuating oil prices, and what would a actually truly sustainable healthcare system look like, which includes really looking at how do we take care of our own health in such a way that we don't need the big healthcare system except for accidents and very acute things. But that writing that got me into the world of climate change, and as I was exploring climate change, I came across a book by Judith Schwartz called "Cows Save the Planet" that was focused on soil carbon and holistic Land Management. And in reading that book about halfway through, I said, wow, I this is where I want to work. I want to work in this world of Land Management and resilience. So, I literally basically changed my career overnight. I called a friend who was working in the world of climate, and said, who do you know who's working in this field around soils? And she introduced me to a few folks and within months I had shifted a lot of my work toward that. And I didn't know how to finance that, so I decided if I wrote curriculum about what I was learning that that would pay me to learn, you know. So, I ended up writing a curriculum called "Understanding Soil Health and watershed function" and getting a bunch of grants, both government and private grants to do that. So, all of those things kind of converged to because my book then came out and then the curriculum came out and people started inviting me to speak at conferences and eventually I started teaching online courses, working with a much more international audience. So that the Land and Leadership Initiative is primarily my project, though there are other folks involved as well. And it is this online and in person learning systems. Very community oriented so our classes are very much based on discussion and improving our ability to ask better questions. We have an ongoing community of international folks who meet weekly. Working with living systems frameworks from primarily ones that I have learned through a woman named Carol Sanford. You may have come across her work, she's written a lot of books on regenerative business approaches.

The other thing that I have done a lot of, is policy work. Increasingly, I am being called on for that and getting involved in that. Everything from my very local Planning Commission to I just joined as a district supervisor to our regional conservation district, which helps provide funding to farmers for all kinds of interesting projects. And then I was on the Vermont working group. So, a state appointed working group for soil health and payment for

ecosystem services. Which is part of where I started thinking about carbon markets and financialization of nature, which gets into our conversation.

And then I increasingly get called on from, like, I just gave a webinar, was one of one of a panel and a webinar for of the Alliance for food sovereignty in Africa about policy and finance. And the other big project that I've been involved in is creating a new curriculum that should be coming out from the United Nations Food and Agriculture Organisation. Their farmer field school program, and it is again about soil and water, but in an even larger sense. So, looking at how land systems and land use and waters flow through can actually change the temperature, the weather, the regional climate, and perhaps even the global climate through Land Management. Separate from the question of soil carbon or forest carbon, so more from a living systems water perspective. So that's connected to a big project in India called the Andhra Pradesh Community managed Natural Farming Initiative in which women self-help economic groups have been organising farmers, including themselves, cause many of them are farmers. They've organised 800,000 farmers in state in India to convert to natural farming. So, this curriculum was designed for as a field manual for those farmers. I have a lot of different projects going on at any one time but that gives you a little idea of the scope of what I'm working on.

Yes, thank you! That is really interesting. and That's experience that lead to why we invited you here today. So that's inspiring! Also, as our topic is carbon compensation. We heard that you are also well versed in the complex issues of carbon offset and certifications and also have opinions about it. So, to clarify the term. We could start with a question what carbon compensation and offsetting actually means and if there's a difference in those? So yeah, how it functions in practice.

So, actually it's interesting the term carbon compensation is one that I don't hear being used in the States. And that may be just the groups that I'm in. So, I'm just going to bring up something that I'm working on because I think it may help. I was just writing something for a new kind of policy briefing for that alliance for food sovereignty in Africa, looking at a lot of the different terminology that sounds very good and that that we need to look at more closely before we decide that it's a good idea and in fact, in many cases I think it's not the right approach. So, the terms I have here that we were looking at in terms of in that field this carbon credits, carbon offsetting, carbon markets, carbon trading and then the concept of net zero or carbon neutral. All as different kinds of accounting systems. So maybe when you use the word carbon compensation tell me what you have in mind for that word.

We were actually talking a lot about this and thinking if they mean the same things or not. And we of course Googled it and some places said that they mean the same thing, but some then again that there is some like a small differences. But carbon offset is what we mean then, yeah.

Yeah. OK. Do you want to go to the next question because, I don't think I have a lot to say about specifically about defining the terms in that way.

Yeah, we were thinking maybe how it functions in practice. If you have some opinions or something about that.

Well, so I want to give a little bit of a big perspective before we go into the details, which is that in terms of study of climate change there originally was a much broader field that was looking at climate change. And half of it was looking at what we still look at, which is CO2 and their atmospheric gases in the greenhouse effect. The other half was looking at what I was just talking about, land use, tree cover, the cooling provided from evapotranspiration, the way that weather moves based on heat domes, high pressure, heat domes. And natural systems drawing the heat or cooling from one place to another, moving rain clouds sort of seeding rain through natural processes. And originally there were two whole bodies of study and bodies of research looking into both of these. I don't know the dates and exact history, but there's some excellent articles about this. I would look at on sub stack, Rob Lewis and another person named Alpha Low. And I can send you those links. They have both been tracking the history of that as well as the author, Judith Schwartz, who I was mentioning originally. She has written two further books, one called "The Reindeer Chronicles" and another called "Water in Plain Sight", that both of which I believe talk about the work of a scientist who sadly just died, named Miyan Miyan. All of those folks have tracked his work some. And I have came to this much more through a scientist named Walter Jehne from Australia who I have worked closely with for many, many years (and) taught together with.

And the idea is that the CO2 and methane, et cetera, is really just half of the equation and maybe it's not even half literally as in 50%, but it's like one half of the approach to look at. Whereas a huge factor of the heat dynamics of the planet is regulated by water as it moves through living systems. And this can be confused with like the climate denial that it's not carbon, it's water. It is for sure greenhouse gases create our climate. Without the greenhouse effect, the earth would be uninhabitable. So, it's actually really important that we have a greenhouse effect. It's a little bit too strong right now according to that climate model.

There are some people who disagree. Some people say that the natural effect is so much stronger that if we were to restore natural living systems and green diverse cover across the continents that, it wouldn't matter if we have more CO2. I'm not sure, I don't have a strong opinion one way or the other. I think if there's plenty of reasons to reduce emissions because of the pollutant effect. And I think that the pollutants interfere with those natural systems. And likely the issue around the greenhouse effect becoming more strong is also part of it. So, there's plenty of reasons to reduce emissions in any case, so I don't need to worry about whether that's exactly accurate or not.

But the problem is, that in the 1980s around there, the public narrative became solely on reducing emissions emissions. And carbon became not like an element of life on Earth but it became like an enemy. So, everything was about sort of anti-carbon. And by ignoring or making the land use aspect very, very secondary, meant it shut down all kinds of research. So, these big conferences kind of like the IPCC that used to happen, got defunded, no more gatherings, no more publications of those things. And I think it was because people thought that reducing emissions, getting people to drive less, making some policy changes around big oil. That those would be much simpler than addressing land use. And a big piece was that carbon was much more easy to model on a computer, whereas water and living systems and plant volatile organic compounds are changing every second in form. So, it's like evaporating and then re condensing a cloud for example. It's like all of that's going on all at once. So, there's no way to model that effectively.

So, they said, look, we can model this and it's a very clear, easy ask. We ask people to create some alternative technologies which will be great for investment. We will ask people to adapt their habits and make some policy changes. Well, as you know that simple idea, it seemed like a good idea has become a huge fight, a huge problem. There are wars going on over this, both interior, sort of civil and also International. And it has not turned out to be simple at all. But in the meantime, we lost track of the fact that there was this whole other approach, which may be pretty much impossible to model but it's actually quite simple to implement. So, it's a matter of using cover crops in all of agriculture. It's a matter of having greener cities. It's a matter of, depaving and making sure that water can soak in, that of preserving soil structure, so that water soaks in. There are many, many things that individuals can do. And that individual townships, cities and regions can do without needing to wait for any kind of policy change. Without having to fight against big oil or even to create a market.

So, to me, whenever we get into questions about carbon trading and carbon offsets and what's the best way to do this? Best way to do that? It's like we're actually asking the wrong

question. As I said, I do think that figuring out how to have less pollutants in the air is huge for the health of the planet as a whole. So, in that sense, sure, yes, they're still very valid questions. But as the primary approach to climate, I think we can already say, that approach has failed. The US is producing more fuels than it ever has at the same time that Biden is, coming up with more and more climate plans. Some of the leaders in climate are refusing to sign treaties like the US. So, it seems like we're really at an impasse there. It's like the ship is sinking and we're tweaking the little controls. And it's time to say, OK, actually we need a different ship. And that different ship is land use. So, everything I say after this needs to be in that context.

I will say a little bit more about looking at carbon and some of the issues there. Because we've been so focused on this single molecule of CO2, and then other forms like methane. We're starting to look at the whole world as like a carbon accounting balance sheet. And a forest is no longer a dynamic living ecosystem. It is seen as like sticks of carbon. So, people say, OK, we're going to reforest this area, and they're even genetically modifying trees to grow faster, to sequester more carbon and just planting, like, monoculture of trees. Saying, OK, that's a lot of carbon. And it has nothing to do with the dynamics of an actual forest and all the things that a real living forest would do for the climate. We know now that a lot of cloud formation and rain formation and cooling processes et cetera come out of healthy, very dynamic forest. And many other things as well. That's just in terms of climate, right but in terms of habitat and everything else, there's a lot more going on. So, looking at the world as a carbon balance sheet is problematic, and it's even more so when people start looking at it as a balance sheet in which they can invest and make a lot of money.

Those are actually really interesting and good points. And also interesting articles and books you mentioned there. Carbon compensation or offsetting has been up on the news on its positive and negative sides or views. Maybe you touched a little bit on this topic already, but what do you think are the biggest challenges and opportunities in the carbon offsetting industry and in carbon offsetting?

Well, I think at its best the idea of protecting existing real natural systems. I mean, I'm flying on a plane to London next week for a funeral. And I would like to be able to do that. I have very, very close friends in in the UK. It's very rare that you can actually see the exhaust from a plane, but occasionally the light is right and you can see it. And it's amazing how much pollutant is coming out of the back of a plane. So, if some other place is willing to do something so that when necessary, we can use this amazing technology that we have. I think

there's nothing wrong with that as a basic foundational idea. And I think there's some great benefits to that, to say, look, there are times where we are polluting and our lifestyles are now at a point where we are dependent on them.

However, for example, we can get into these repeating loops of like the accounting balance for Bitcoin. It's like alternative currencies, right? I don't know if Bitcoin is one of them or all of them, but I don't follow that very closely. But, they require millions of computers running all day and all night. And even just our online backup systems, storing all our videos, et cetera is a huge, huge, huge, use of energy of fossil fuels, basically or something to drive all of those computers. And when you start to say, OK, well, we need those alternative currencies in order to fund the offsetting or to keep track of the agreements of the offsets, et cetera. And meanwhile we're using lots of fossil fuels to keep track of that. It starts to get into like a hall of mirrors. Where it's like, wait a minute. How much are we using to do this, that we wouldn't even be needing if we didn't have it set up as, like, a marketplace in that way?

The other real downside of it I think is, and I'm sure you've read this, the <u>recent articles in the</u> Guardian about how over 90% of forest carbon credits are flawed or false or they're double counting in terms of are they even accomplishing anything. So, if we have a system that's flawed, then I'm flying on a plane and I'm feeling good about it and the airline is making more money because they can say it's a carbon neutral flight. And meanwhile we're actually polluting more because we're saying, OK, we're meeting this agreement, but we're not. So, a flawed accounting system could be creating worse situation in that way as well. And then we get into the social and ecological effects of it, where we start to see a forest as like sticks of carbon that must be protected. And then you get people with machine guns going in and saying to the indigenous people who have been managing that forest really beautifully because we know that indigenous people tend to manage forest systems much better than anyone else. When we look at the results. And they're being told to leave or their houses are being burnt down, or you can't cut that tree for your medicine because we now own that carbon in that tree. Those kinds of damaging effects are just horrendous. Like really really disrespectful. Kind of carbon colonialism you could call it. So those are a few of the issues there.

And another accounting issue in the world of soil carbon because, I worked for a long time and I'm still a board member on the soil carbon coalition. We had a lot of conversations with people about carbon accounting related to soil carbon, which was never the intention of the soil carbon coalition, was not about that. It was more about cell carbon as soil organic matter, that's creating the structure for a whole healthy system. But because of our name many, many

people approach us at conferences, et cetera to talk about that. And, I can't remember which cup it was, but when they sort of shifted to a net carbon system and soil carbon was finally accepted as a source, a potential way to sequester carbon, which now it's being called into question all over again, I think rightly so. Everybody was allowed to come up with their own metric, their own measurement system, their own way of accounting for how much socarbon was being built. And you had all these startups that were going approaching farmers and saying: hey if you do this practise, this practise and this practise and by the way we're selling you this thing to make this easier. Like you if you use our our system then we'll get you carbon credits. But meanwhile everyone had a different way of measuring, so some people were measuring, very shallow, some people measuring medium, some people measuring deep, some people measuring this thing or that thing or using this technology or that. And some people were doing it in very random spots. And some people doing it in very specific spots. And what we learned over many years in The Soil Carbon Coalition is that because soil carbon is a reflection of life at work in the soil. And because soil microbial communities just like, New York City might be very crowded. And then you go a few miles over here and there's hardly anybody living there. It's like the forest, Adirondack Mountains. The soil is similar. There may be a huge population of microbes in one place because of some animal that died there at some point, or who knows what. Or maybe there was a very prolific plant growing there. So, there's a lot of microbial activity in some places and very little, just a few feet away, a few meters away. So, measurement of carbon is very, very unstable kind of thing to measure. Likewise, even in terms of depth, what some people were starting to find is that, as you do more interesting techniques here at the surface, it seems like the microbes that have been hanging out down low are coming up so that soil at depth is getting less carbon and that the surface there is more. But if you're just measuring the top small part, you may say: wow, we built a lot of carbon here.

So, measurement is really challenging. And likewise with forest measurements, are you measuring just the canopy or are you measuring the roots? And how do you measure the roots? And how do you measure the soil carbon in a forest? And we get into some crazy situations. So, in Vermont and New Hampshire, near where I live at the same time that people are being offered forest carbon credits the Vermont sort of climate plan has shifted to that we're going to burn all our forests because it's a sustainable fuel. And we're going to get carbon credits for doing that. So, completely opposite understanding of what's going on. And both are accepted. So, it's a little bit like the double counting, but it's almost like cancelling each other out.

There's a lot of confusion about natural systems. And like I said, if you're just looking at as a carbon accounting sheet, it's very, very easy to tweak the numbers in such a way that it addresses your industry goal. If you own a biomass plant or you're selling wood pellets from the US to Europe. They're being shipped in airplanes and ocean liners across to Europe as a sustainable fuel. I mean, it's just insanity. And these are the forests that we need here to keep our temperatures. There's a reason that the northeast of the United States is a very cool, lovely place to live. It's because we have regrown the forest that all were cut down for other reasons 150 years ago. We had no forests here. So, you can see there's a lot to think about this.

Yeah, there is a lot. And you kind of already went a bit into this, but there are some critiques about this carbon offsetting... So, is carbon offsetting just a way for companies to continue to emit greenhouse gases without truly addressing their carbon footprint? Is it like resembling a loophole?

I think so, I mean, my general feeling about humanity is that all people are well-intentioned and trying to do the best they can with the education and information they have. So, I don't believe that people are sort of evilly saying, "oh, let's find this loophole and we can get away with it." We sometimes hear reports of some pretty shady deals, but I do think most people are really trying to do something right and they just aren't looking at a big enough picture to see all of the effects.

There certainly is a lot of greenwashing. You know of companies doing something so that they can advertise that they are sustainable. Even that, though, I feel like is well-intentioned for the most part, and it's just really not being like, "oh, I don't want to hear that part because we already are doing this and it looks good". So, you know, there's sort of a bit of intentional blinders put on.

Like I said in the first place. If something's going to be happening anyway, if people are going to be flying in planes, and I use that one because personally, that's one that I don't ever want to give up the potential to do. You know, I have friends who said, "I'm never going to fly again". I hope that I don't have to do that, and I only fly like maybe 3 times a year, but it's still a lot. So, if there is a way to offset that I'm happy about that. So, it's not like it doesn't serve a purpose.

I'll give you another example, that's actually not so much from the carbon world, but I think it really helps to see the difference about offsetting versus something else. There are banking

systems now of wetland banking and endangered species banks. So, for example, if I am a real estate developer and I want to build a large hotel in a place that is currently a wetland, a bird habitat. I can go to one of these banks and they will either protect an existing wetland somewhere else from development. Or they will pay or buy up the credits of a place that has created a human-made artificial wetland, that might provide habitat for that one endangered stork, bird, or some other endangered species, where I'm trying to build. And so, I can trade there to destroy this wetland, because I'm protecting something somewhere else.

And there's a few issues there. One is that both of them deserve protection, right? Especially since there's plenty of land that can be developed and that isn't going to be destroying habitat in the same way. But secondly, there's an assumption that one place is equivalent to another. And if I am the bird, frog, beaver or whatever lives there... It doesn't help me that you created one over there, if you're destroying my home here. It's kind of like we're saying, "OK, I'm going to bomb this city, but I'm protecting a city on the other side of the world, so it's OK". And it's not OK that you bomb my city and it doesn't benefit me that you protected that city over there.

To me, that's a clearer example of offsetting. It's really not thinking in terms of living systems and how they actually work with carbon, because the carbon emissions are sort of diffuse, so they're polluting everywhere. Or if you take the greenhouse gas and they're worsening climate everywhere and air quality, because they tend to diffuse. But we're making a choice about what's through, what's more important, or which one to protect. All of the stuff is a monoculture of carbon in a forest, the same as a living forest, like a diverse forest. We've forgotten the "essence work", that each place is unique. Each process that's happening in real time is unique. This day is not going to repeat. This woodpecker that is doing something right over here, it matters to their babies in the nest, that they get to do that thing to survive for the next generation. So, every species, every place, everything, every moment is really unique in time. And we can't just trade things one for another.

Yeah, that was really well said. So, what we've also talked quite a lot about in the course is our future and "what is a sustainable future". So related to this, how do you see the future of carbon offsetting evolving, especially in the light of emerging technologies and these global climate agreements? What do you think, what's your viewpoint?

I'm seeing that people who maybe previously were in denial about climate change or literally denying that it is even happening are getting more and more frantic. Sort of saying like "well I

live in Vermont, it's fine if it gets a little warmer here". Just a very naive approach to it. But now we have wildfires in places where we never had fires before. And I was talking to somebody in England who had had 14 floods in the same town in one year. And things like that are happening and everybody's starting to say, "OK, this really matters, it's real". So, there's a franticness like urgency happening there. I think is really winding up things, so there's gonna be more and more and more "just do anything we can" to fix it now. And when we get into that mindset, it's very hard to think clearly. So, my suspicion is that there are going to be more and more, very rapidly designed approaches.

OK, that's not working, let's try this. We have another issue, which is that all of these well-intentioned groups that are trying to solve things are being pitted against each other, sometimes intentionally, and sometimes just because everybody's nervous and looking out their window at the fire approaching. And people are more and more blaming each other and disagreeing. I was at a meeting the other night with very committed people and good thinkers and in one hour we can have the two arguments about small details of something. But in such a way that somebody left and is kind of upset about something. Like our nervous systems are wound up in such a way that it's harder to get along, to think, and to plan long-term. So, I think there is the potential to develop systems that do make sense. And I think there have been some good attempts. It's critiqued heavily now... is it called the SDGs.? No, those are the sustainable development goals, but in finance, there's...

Is it ESG?

ESG, yes! What is it, ecological..?

Social governance.

Yes, social and governance. So that was a great idea, and yet it's being critiqued. That those done in such a way to feel good, but it doesn't really work or that it's just greenwashing. But if there was a lot of integrity behind those, that would be really important, right? So, I think one of the questions is: how do we build the society in which people have integrity about these things? And that integrity comes from a deep understanding and where we don't tear each other apart every time that we disagree. I like the term "calling in" rather than "calling out"; rather than blaming others like "oh that person is a racist" you're saying, "hey come here, let's talk about this". It's a real cultural shift, and I do see some signs that it's happening. People are tired of the blaming, attacking and splitting that's happening.

And, it's like a race of which is gonna come forward first and is there something that we don't see? Yeah, I hope that there's something that's emerging, that we can't quite put our finger on yet... Like they were all gonna come together for this thing. And we know that in a crisis, both of those things can happen. You can have people breaking windows on looting stores and grabbing things. Or you can have people coming together like, "wow we're gonna figure this out, we're gonna share our food." So it's a really interesting point in history. In some ways I'm glad to be alive now because what we do, it really makes a difference. And the ability to think clearly in a crisis is probably the most important skill that we can develop right now.

Yeah, I think that's a really good sentence. We'll highlight it in our transcript for this podcast. Yes, and of course we wish we could sit here and discuss with you all day, but unfortunately we don't have the time and we don't want to take up too much of your time either. But is there something now, shortly, that you would like to add? Something more about carbon offsets that we haven't asked you or that you'd like to share your opinion about.

Well, I guess just more of a summary. That life is more than just carbon and when we talk about carbon, to understand that we are actually talking about life. And to keep that in mind, it's not a chemical equation or a financial equation. The idea, it's not just carbon. There was a group called intrinsic exchange group that was trying to start a whole new asset class in Wall Street, a natural asset company. And there's the whole payment for ecosystem services. So there's a lot of financial language around natural assets and ecosystem services. And if we dig into the history of it, it sounds like a great idea. A way of getting money to farmers or to people who are protecting forests. But there's always a question of, why does somebody in the middle need to be making money off this? And is there a way that communities can do this just because it's the right thing to do?

You know, if the roof is leaking: we're gonna hire a carpentry crew to come in and fix the roof. Like the community can say; "hey this landscape is not working, let's hire some farmers who really know what they're doing to come in and and fix the watershed and make it more resilient to climate". That it's actually storing carbon in the form of a big soil sponge that's soaking up the rain and reducing flooding and reducing drought and creating more cooling.

So in Vermont, there's a group that's looking at "how do we hire farmers as watershed contractors or landscape contractors"? Rather than incentivizing a stupid farmer to do the right thing, we were looking at who really knows how to do this: let's hire them and do that

locally. We don't need a trading system, we don't need investors. If I need my roof fixed, I don't need a trading system or investors to fix it. I need a really good carpenter to fix it and I will figure out a way to come up with that money to do that.

So, the opposite of that is what's going on in the finance world, where we're being told that the only way to save nature is by financializing it. And my question is, is the way to financialize nature by saving it? I think that many of the investors are like "there's a lot of money to be made here". I'll read you a quote in Investopedia about water investment. "We know water is the source of life, but it can also be a source for portfolio diversification like gold and oil. Water is a commodity and it happens to be rather scarce nowadays. So as with any other scarcity, the water shortage creates investment opportunities." I mean, that is just chilling statement, right? Because it's looking at what does that mean for the world, for people, for animals... where everything is just seen as yet another investment opportunity. Every crisis, every.

If that's what they're saying about water, then I can imagine that some equivalent conversation is going on about the great investment opportunity of all forests burning up. There was a move to create natural asset companies as a new asset class. That was actually interestingly shut down by the conservatives because they felt it was going to limit their ability to drill for oil in protected areas. But it was also a place where some conservatives and some people like me were writing in at the same time and saying, "no, we don't want this because we don't want to financialize nature".

Likewise, "ecosystem services" was a term defined in the attempt to financialize nature. And ecosystem services are services that benefit humans and business, so not a process that benefit the entire ecosystem. In English the word services can also be a word for prostitution, and to me it's a bit of an analogy that a woman can be paid to service a man. Not seeing a woman as being a full participant in the circle of life. And similarly, the term natural assets or natural capital, like the enslavement of humans like you're an asset, your capital that I can trade or that provide services. With no own integrity or rights of your own.

So, I personally think that some of the countries that are looking at rights of nature is a very interesting parallel to this because it's flipping some of that narrative. It's like, "<u>yeah, nature</u> <u>has a right to be protected because of itself, not because it provides services just to us</u>". It has a right to persist and exist and do its work.

I'm always interested in how we can have this conversation in such a way that is not fighting

against the people who we disagree with, but where we can all say, "hey, we all want to live in a system that does XY and Z". In including the animals, birds and insects around us. So how do we do that? Because there is a huge benefit to be had by making the world work again.

And I guess the last piece I would say is that there is a term "fortress conservation". That conserving land in such a way that other people are not allowed to go there. There's a movement to conserve 30% of all land by 2030, and some groups are saying that's actually a land grab, including some very wealthy NGOs, like The Nature Conservancy. And that they are purchasing off that land in the name of protecting it for nature, which is OK... But that it keeps human management out and says we get to decide "who gets to go there and who doesn't". And there's some big concerns about that, even though it seems like a great idea to protect that much of nature.

There's just a lot of critical thinking and deep questions that we need to ask as we set this up, one important question is: Who is financially benefiting or who is benefiting in terms of power and control by this process? The bigger question is: how might we do it in such a way that is really benefiting the whole system? Which doesn't necessarily leave those people out and looking at the system as a bigger whole.

Yeah, that's really interesting. So, there's a lot you have told us, and I know there is a lot for us to digest and think about. Because I think this was all very new for us, even though we knew what carbon offsetting is. But to know more about what it can relate to was really interesting. It was a pleasure to talk with you and hear all these different views on carbon offsetting. So, thank you.

Summary:

And to our listeners, thank you for listening to this podcast episode. As you might have noticed, carbon offsets is a very complex topic and it's difficult to explain it in an easy way. There might have been some examples that were hard to understand, and some things were quite hard to grasp for us as well. So, Siiri and Adolf, do you want to summarize what we learned from this interview?

Yes, as we heard carbon related pollution leads to many environmental issues that we have also discussed during the course. These are for example global warming, greenhouse effects, climate change and much more. However, we also heard that it's not only a bad thing. Like

Didi said "greenhouse gases create our climate. Without the greenhouse effect, the earth would be uninhabitable."

We got different perspectives, sides, and even opinions about carbon and carbon offsetting. Since Didi is an expert in many different topics, she gave us a different perspective, to not just focus on carbon offsets, but the bigger picture. We also talked about the difficulties of measuring carbon, and like Didi said "carbon is very unstable to measure." Didi also mentioned that carbon offsets can be effective and have an impact if done right by companies, but it's important to not only focus on that aspect.

So, hopefully you all learnt something new today. Thank you again for listening, take care!