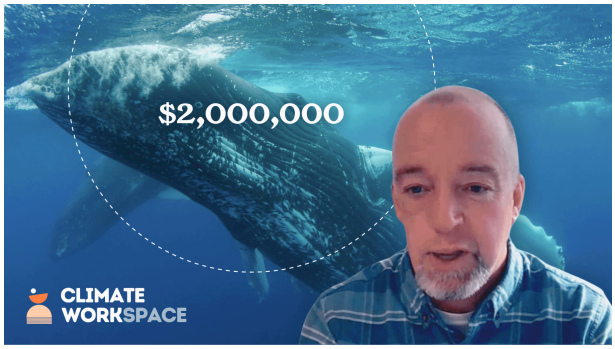

Climate Workspace Episode 5: Should we put a price on nature? Featuring Linwood Pendleton

Sources

Nature. Its beauty and power captivate us. Its resources have provided the foundation for our modern world. But it's not just lovely and something nice to have around. We actually need nature to be healthy and functioning – and our future depends upon it. Unfortunately we've seen and used nature as an infinite resource. It's only now that we realise what we have to lose, and we are trying to correct this by properly valuing it. But is it as simple as giving animals and ecosystems financial estimates for the services they provide? Or does that turn them into yet another commodity ripe for human exploitation?

This is a series where we learn about the climate crisis, dig into the science behind it, and learn ways each of us can accelerate action, specifically through our jobs. I'm Erin with the Hive Initiative and this is Climate Workspace.

While researching our latest video on if sustainable business is possible, the World Wildlife Fund came out with an update to its Living Planet Index. And it showed, that since 1970 wildlife populations have declined by 69% globally.

source:

Living Planet Report 2022

https://wwflpr.awsassets.panda.org/downloads/lpr_2022_full_report.pdf

And at the same time we saw initiatives aimed to quantify the value that animals and ecosystems provide. For instance, a whale was estimated to provide over 2 million dollars worth of carbon sequestration services.

source:

International Monetary Fund

https://www.imf.org/en/Publications/fandd/issues/2019/12/natures-solution-to-climate-change-chami

The terms “natural capital” and “nature-based solutions” kept popping up.

And I wanted to know: is this a good idea?

So I got on a call with ecological economist Linwood Pendleton. He’s worked as the chief economist of NOAA. He was also the global lead for ocean science at WWF.

His insight helped me understand how complicated this topic really is.

The 2022 report that WWF came out with, the one on biodiversity, and saying that animals have experienced a 69% decline since 1970, were you a part of that study?

No, but I have been in the past. So this is a recurring report, The Living Planet Report, and this report is one of the few cases where the more we learn, the worse it seems. So a lot of times in the environmental field, we notice a problem, we usually notice it at the place where it is most acute, and then we freak out. And then as we learn more we realise, ok, it’s not so bad. With the Living Planet Report that has tried to collect information on: What do we know about biodiversity, and what do we know about biodiversity loss? Every time they do this report, it is better, it is more scientific, it has more evidence, and every time, the situation just looks more grave. It’s still evidence that is being accumulated because we really know so little about biodiversity, especially in the ocean. But it’s something that the outcome is so clear and it just keeps getting more concerning year after year.

How are these animal populations being tracked and measured?

It is an attempt to bring together a lot of different approaches. So, there’s some species like because of the Christmas Bird Count, we know a lot about birds. And we know a lot about them with a high degree of accuracy.

source:
Audubon Christmas Bird Count
https://www.audubon.org/conservation/science/christmas-bird-count

For others, we don’t know so much. So with big charismatic land species, yeah we know a lot. Big charismatic ocean species, not as much, um and then smaller non-charismatic species even less. So it really is trying to make sense of a lot of information that differs tremendously in quality.

Animal populations are in decline- why does that matter? Why is biodiversity loss a problem?

So there’s biodiversity, which is the diversity of all the things that live on the planet, and then the organisms that make up this biodiversity and it really is those organisms that we normally talk about when we talk about biodiversity, and those are important for some very basic ethical reasons like:

Why are we the only species that needs to survive on this planet. Doesn't every species have the right? So I think we should worry about that because it is what makes Earth special.

But when we think about a more human-centric answer to this question, is that people depend, generally and in a very positive way, on biodiversity and wildlife. But it's complicated. And so, we see quite frequently where people think that "Oh, more biodiversity, more wildlife, that's always good right?" And it's like, well, generally. Because more biodiversity, more wildlife, means more resilient ecosystems, and we need that especially in the face of climate change. But, our understanding of what is good and what is bad about nature is constantly evolving. So we know for instance that when we have more wildlife and more contact between people and wildlife, we have more zoonotic diseases like COVID. We have more wildlife-human conflict. So we are still really very much in the early stages of understanding how people depend on nature, and we tend to focus on the parts of nature we like the best and either ignore the parts that we don't like or we just don't bother trying to study them.

So let's say numbers continue to decline, what do you foresee would happen?

Well, I just think what will have is, we will have ecosystems that are much more likely to change radically from year-to-year, decade-to-decade as the climate changes. And they will continue to be less productive and they will produce fewer things. It'll affect our, sort of spiritual and cultural wellbeing, but it will affect our ability to grow crops, it'll affect the ability of the Earth to cool itself, it will affect the ability of the Earth to regulate the greenhouse gases, and that's why we have a living planet, because the Earth has been able to do a pretty good job of self-regulating these gases and temperature, and we are really messing with that capacity.

And what do you feel needs to happen? What needs to be done by businesses, and governments and by citizens?

There's so much. But I think the one thing that is crystal clear, but it's the thing that we so often turn away from, is we need to consume less. Of everything. Less food. Less energy. Fewer resources. Less land area. Those are the driving factors that drive all of these problems. And we never want to consume less. We want to find a way of consuming more but pretending like or hoping that we can somehow alleviate those problems. And it just doesn't work that way. And it hasn't worked that way.

Technology is great. But technology is always providing something new and we don't understand the consequences of that new technology is as we are fixing old problems.

source:
The looming threat of deep-sea mining
https://www.bbc.com/future/article/20230310-what-does-the-high-seas-treaty-mean-for-deep-sea-mining

So we fix old problems and create new ones. Whereas when we simply consume less, then we do. Now, when I say consume less, it's mostly the people who are consuming the most, have to consume

less. Because there is a huge part of the planet's population that can't afford to consume less and need to consume more. But as a population we certainly need to consume less and the countries that really can consume less, they have to. And they're not.

Would you say that this problem is caused by businesses?

I wouldn't blame businesses alone, I would say businesses meet demands that are created in part by basic human behaviour, in part by governments that promote different kinds of consumption, and by businesses who are very good at marketing and convincing us that we want to consume more. So it's a really complicated problem, and everyone has a role in it. But I think all of those same actors have role to play in the solution as well.

So that's a good segue that's been talked about in green growth strategies - which is to assign a monetary value to nature, for instance giving a whale a value for how much carbon it sequesters and the services that that provides. And you've done some research on this topic- can you tell me more about that?

I've done a lot of research on this topic and I've been working on it for about 30 years. And when we first started, the idea was that we wanted to try to evaluate the cost and benefits, first of public projects. And we were really good at measuring the costs of public projects, not so good at measuring the benefits, but we got better at measuring the benefits to people. But one of the things that was constantly left out is, what are the benefits to nature, then how does that affect people.

So quite a few people who were working at this edge of economics and ecosystems, some of them called themselves ecological economists, some of them were more like environmental economists; using traditional economic techniques but trying to understand how nature is a resource and how it affects human wellbeing, said: "Let's try to put a value on nature that we can use in these cost-benefit analyses. We explicitly said, the idea is not to commodify nature. Because there's a journalist, an opinion columnist named George Monbiot, who wrote at the time, "This is just going to lead to the commodification of nature."

Put a price on nature? We must stop this neoliberal road to ruin
https://www.theguardian.com/environment/georgemonbiot/2014/jul/24/price-nature-neoliberal-capital-road-ruin

The UK government wants to put a price on nature – but that will destroy it
https://www.theguardian.com/commentisfree/2018/may/15/price-natural-world-destruction-natural-capital

And I wrote and other people wrote "No no no no- that's not it at all. We're just trying to make sure that this isn't left out of the cost-benefit equation when we decide what's a good project for the government to invest in, and what's a bad project.

Natural capital: what we don't value, we destroy

https://www.greeneconomycoalition.org/news-and-resources/natural-capital-what-we-dont-value-we-destroy

Fast forward to a few years ago, there's something called The Dasgupta Report that said "We really need to be doing this at a larger government level, and we need to understand not just the environmental costs and benefits of a project, but what are our assets as a nation. And how do we start to understand that fact that clean water and forests provide economic value to people, that needs to be weighed in the context of things like GDP and growth.

Dasgupta Review - Headlines
https://assets.publishing.service.gov.uk/media/60182857d3bf7f70c2afe5bb/Dasgupta_Review_-_Headline_Messages.pdf

Dasgupta Review- Full Report
https://assets.publishing.service.gov.uk/media/602e92b2e90e07660f807b47/The_Economics_of_Biodiversity_The_Dasgupta_Review_Full_Report.pdf

University of Cambridge: Dasgupta Review
https://www.cam.ac.uk/stories/dasguptareview

That was another kind of appropriate use is challenged by the fact that we don't know how to value well such big assets. Projects are small and economics is really developed to measure the value of incremental changes, not huge changes like all of one's forest. And as we've done that we've realised that we're able to apply values to certain parts of nature–but nature is awfully complex and complicated. And no-one has really been good at valuing the whole basket that is nature. If the idea was to be more informed, then putting a value on nature was good, it increased our knowledge. But it was very problematic. So, maybe we knew a lot about whales, and nothing about deep sea corals. But if deep sea corals are incredibly important to fish habitat, and we don't know anything about them and just assign them a value of zero, then we end up spending a lot on whales and not enough on corals. And so this is something I faced as the Chief Economist at NOAA. It's like "Yes I hear you, I know that your ecosystem or your species is really valuable, but I'm trying to think about all of America's coastal and ocean ecosystems. And we don't have data for most of that. I don't even know what the values are even approximately."

So, when you see people now going that extra step and saying "Oh look. Let's sort of commodify this value of a whale, and get people to invest in it based on this value," the value of that whale is still largely unknown. Even if we know how it contributes to carbon overall and how carbon affects people, that individual whale's value is poorly known. Because the carbon value of a whale depends on its species, its age, its size, where it lives, what it eats… and then if that whale collides with a sailboat and kills a sailor and the boat sinks, do we need to charge a cost to that whale? You know, so if we are going to talk about the asset value, we need to talk about the liability cost as well.

And this becomes particularly important when we think of elephants for instance, which is another one of these “organisms du jour” that people are trying to put a value on. Yes, ok if you are going to get credit for protecting the carbon value of that elephant, but that elephant then tramples a small farm and kills the farmer, you should be responsible for the costs. And when you grow seaweed, yes seaweed, there’s a lot of carbon that goes into seaweed, but there a lot of organisms that live on that seaweed too. So if you’re going to count the carbon absorbed, you have to count the carbon that’s emitted.

The value of ecosystem services in global marine kelp forests
https://www.nature.com/articles/s41467-023-37385-0

And we don’t do this and we really see people trying to commodify or assetize these parts of nature, these ecosystems services and disservices, we see a lot of cherry-picking and a lot of a’la carte behaviour. And nature is not a’la carte. You know, it’s not like you can go and just choose one thing you like and forget about all the rest, you gotta buy the whole basket. And we’re just not there and people aren’t approaching it as a basket of goods that can’t be separated.

So what would you recommend be done instead of assigning values to species?

First of all, we just need to figure out what is the problem, why is the species, individual species, or ecosystems more broadly because with the exception of hunting, it’s rarely the case that there’s pressures on just a single species. It’s usually habitat loss that’s driving the problem. We need to understand better what our footprint is, and this is part of what the Living Planet tries to get at. What is the global impact of our supply chains, if you’re a corporation. And how do we reduce those impacts. So we talk a lot about de-carbonisation, but we have to talk about de-degradation. And that really is where we stand. And we know that you cannot in a piecemeal fashion compensate for this very holistic degradation that most corporate activities cause. So have to figure out, how do we reduce that at a holistic level. So that really is the first thing. And then second is, we also have to understand what is the damage that has been created in the past that has to be repaired. And, once again, you have to focus on the damage done, not some feel good project that is 10,000 miles away. And that’s where we are with a lot of corporations right now. They’re saying “Yeah we know we need to be better, so we’re going to invest in a carbon project in this country way over there.” But if your supply chain is in Malaysia and the damage you’re causing is in Malaysia, and your investing in a project in Peru, no matter how good that project is in Peru, it’s not fungible. You can’t cause damage to people and nature in one part of the planet and compensate for that by doing something good in another part. So I think we need to do a much better job of internalising these damages, addressing them before they happen, and then focusing on repairing and restoring the past damages done.

Because most corporations aren’t startups. They have long legacies. And they have the wealth that they have now because of past damages to the environment. And so, in a sense, it’s like a nature debt that they owe. And when I see a lot of companies say “Oh, well we’re doing well”, I really think that: You’re doing well and you’re doing your duty. But if you think about your past impacts, you’re not

even close to that. So don't tell me that you're doing good till you've made amends for these past damages. And you're really offsetting damages to nature, damages to people, in addition to damages to the carbon system.

It does seem that using these as a tool for advertising gets everybody confused- like, is it true? Have they really done it?

Exactly. So a couple of things come to my mind when I hear that. First is that there were some very prescient companies who got involved in carbon neutral, and they didn't do this on their own, they were led down this path conservationists I think, who really want the planet to be carbon neutral and even positive in terms of reducing carbon dioxide. Now we call it nature positive. But a lot of companies saw this and said "Oh yeah. Is there an easy way for us to do that and we'll do it." And in fact we gave them an easy way, it's called carbon credits. So suddenly everybody was carbon neutral. And if you go to the grocery store every tomato every tomato was carbon neutral and oil and gas companies are going to be carbon neutral in 20 years. You know, it's just gotten to the point where everyone has rushed into this space. The demand for doing the right thing is far greater than the supply for doing the right thing. And so that has created an opportunity for people who are offering unscrupulous or poorly-vetted actions to fill that void. So what it means now is that even if all the corporations who were participating in things like this had the best intentions, they're not able to meet those intentions at the pace they want. So these claims really have lost all credibility. And what we hear from the voluntary carbon markets and others is "Well, we have to do a better job of highlighting the good projects, we have to create better standards, better regulations, we need to bring everyone up to speed." I think it's too late. I think the brand has lost its value. Carbon neutrality doesn't mean anything anymore. And this is why I think a lot of the world has moved on and said "Oh. Ok, it's not carbon neutrality, it's nature positive." So it's not just about carbon for all the reasons I just suggested, let's create a nature positive brand. And we at the risk of just the very same thing happening.

Shell: Nature Based Solutions
https://www.shell.com/what-we-do/nature-based-solutions.html
The World Bank: Natural Capital
https://www.worldbank.org/en/topic/natural-capital
Why measuring the economic value of ecosystems is important
https://www.weforum.org/agenda/2023/02/an-ecosystems-economic-value-can-now-be-measured-heres-how/
Dow and The Nature Conservancy: Building on 10 years of conservation and sustainability
https://corporate.dow.com/en-us/science-and-sustainability/working-together/nature-conservancy.html
Valuing Nature
https://corporate.dow.com/en-us/science-and-sustainability/2025-goals/nature.html
Nature-based Solutions for climate
https://iucn.org/our-work/topic/nature-based-solutions-climate
Nature-based solutions for climate change mitigation
https://iucn.org/resources/jointly-published/nature-based-solutions-climate-change-mitigation
Ensuring effective Nature-based Solutions

https://iucn.org/resources/issues-brief/ensuring-effective-nature-based-solutions
Blue Green Future
https://bluegreenfuture.org/our-work/
The History of Carbon Offsets
https://interactive.carbonbrief.org/carbon-offsets-2023/timeline.html

How does this factor in to governments being Net Zero by 2050. We still have the word 'net' in there, is it the same issue for governments as it is for businesses?

Well, governments I think are more credibly capable of promising something like Net Zero in terms of carbon. Because a lot of those nature-based systems, nature-based solutions to getting there are based on public lands and public spaces. For which governments can credibly say, we're looking at this at very large scales and we are in fact stewards of these very large scales. So when a country aims for net neutrality, its a bit more credible because we have open transparent ways of tracking their progress, they have to share the data, the activities are there for the world to see, and we don't have the problem of displacement which is what we have at a project level. So you do a project, yes now your project is good, but you've pushed all the bad activities down the street. At a national level, it's not so easy to do that. But we still do it for things like garbage, right? We do it for energy use and extraction, so one country can extract the energy and sell it to another country and it's not charged to their carbon accounting. So we have to be careful at the government level as well, but I think the government can do this a bit more credibly. But once again it's just not all about carbon. So it's good to see governments thinking more broadly about natural assets, and approaching natural capital as something that's measured in different ways. Measured in terms of its biodiversity, its productivity, its land area, and its economic value, that gives you a variety of measures to understand how well is nature doing? And that really is what we need. When we focus so much on carbon, it would be like you only looking at your pulse to see how you're feeling. And never taking your temperature, or paying attention to aches and pains.

So what are your biggest takeaways from your work trying to protect our planet?

So the first is that people, people care but people don't often think critically about what they do and what their actions are. And people, no matter how much they care, are loath to change, even when they do care. They are always trying to find ways of justifying what they do rather than really examining what they do. And that is true of the people who are trying to create solutions and it's true of everyone and we always have to remember that, it's just human nature. So trying to find ways of working where people are involved in thinking critically, but they are working with people who don't as part of their day-to-day life. You have to find that balance. And what I see is that the people who think simply but are very good at selling simply are the people who end up getting the most attention, the most money, and creating the most problems.

And these kind of people, how could we motivate them to take action?

You know, I find it very difficult to motivate people to take personal action. I don't try to do it. I do try to motivate people to think critically, because I am a professor now and I always have been, I try to motivate people who don't think of themselves as being conservationists to think of themselves as conservationists. And a lot of people don't see themselves as working in the conservation sector, they say "Well that's just now how I'm trained". No, that is exactly how you're trained. And if you think about how much corporate money is moving now into conservation and biodiversity and climate, we need people who are CEOs who think of themselves as conservationists first and CEOs second. Not as nature-minded CEOs but as business-minded conservationists who are working there. So, I find that it's easy to motivate people because they want to do the right thing and they don't realise they can. And you can find anyone anywhere and convince them that they have a role, even in their business life to play in conservation.

As we saw, we should work to understand the value of nature. But giving it a price risks it becoming yet another distraction.

It's actually our conscious effort to use nature less that will make the most difference. Especially if we bring this conservationist mindset into our jobs.

The Hive Initiative can help with this- we facilitate workshop sessions called the Mini Climate Summit, that brings employees together to understand topics like biodiversity and then apply the knowledge to their jobs. It increases awareness and hope and spreads a culture of action. We'd be happy to tell you more- a link is in the description.

A special thanks to Linwood Pendleton for sharing his knowledge with us. You can find out more about his current work connecting ocean knowledge across cultures and disciplines at oceankan.org.

Thanks for watching.