Sustainability and Climate On-Demand

“The Next Frontier of Sustainability: Measuring Biodiversity Risk”

Transcript, 24 October, 2025

Mike Disabato (00:00):

What's up everyone, and welcome to the weekly edition of sustainability now, where we cover how the environment, our society and corporate governance effects and are affected by our economy. I'm your host Mike Disabato, and this week we look at our new tool that measures biodiversity risk for companies. Thanks as always for joining us. Stay tuned. When it comes to the environment, carbon emissions and weather are usually in the spotlight when we talk about financial impact, and there are a couple reasons for that. Regulation or very noticeable effects and weather and the relative ease of measurement. I know what a hurricane looks like. I pretend to know what the chemical compound for carbon dioxide is and what it means. Let's compare that to the definition that the WWF has of biodiversity. Biodiversity is all the different kinds of life you'll find in one area, the variety of animals, plants, fungi, and even microorganisms like bacteria that make up our natural world.

(01:04):

Each of these species and organisms work together in ecosystems like an intricate web to maintain balance and support life. Biodiversity supports everything in nature that we need to survive food, clean water, medicine, and shelter. Now, if the word everything is included in the definition of something, then building a single factor to measure that something might be a herculean task, but such as the skill and dedication of my colleague and guest today, Laura Coomber, who's one of our biodiversity scientists and previously worked in the Peruvian Amazon, who alongside a number of our colleagues, helped to build out what's called the biodiversity risks index screen, which we designed to help investors reduce exposure to companies whose activities might negatively impact nature such as deforestation or habitat loss and over exploitation of natural resources. The thought is with the screen one could build the bespoke index or an investible ETF, which will then allow them to meet regulatory or client or internal mandates to manage financial risks from biodiversity loss.

(02:10):

Now, due to the relative newness of this screen and a strong desire for me to understand how to sort through the complex web of biodiversity that underpins the way our entire planet functions and therefore underpins the functioning of our businesses in our economy, and because I'm interested in how we found a creative way to build an understandable metric of measurement for the financial markets to deal with biodiversity risk, I decided I should call Laura and ask her to take me through the research process starting initially with how she and her colleagues went about measuring biodiversity.

Laura Coomber (02:45):

So there's two central ways in which you can understand the relationship between biodiversity and the economy or individual companies. The first is impacts, which is the way in which companies drive the loss of nature. A really well known example of this would be deforestation is what everybody talks about. So for example, companies that rely on soy or beef that are driving deforestation in the Amazon and therefore the loss are very important biodiversity. The second kind of angle is to think about dependencies. So the way in which companies are dependent on the services provided by nature. The most obvious example of this would be the agricultural sector, which is highly dependent on services provided by biodiversity.

Mike Disabato (03:25):

I just want to quickly interject here and sort of take Laura's point and simplify it into a binary yes no approach or categorization. There's nature dependent sectors like agriculture or forestry or food and beverage companies that have direct operational reliance on ecosystem services. Agriculture needs, pollinators, forestry needs trees, and let's say beer companies need potable water. Now, I could have said a lot of things there for food and beverage companies, but I think we all agree beer companies are the best of that sector anyway. Service-based sectors such as banks or insurers or tech companies have a much lower direct dependency because of their operations not being physically tied to natural resources or ecosystem functions. Their exposure is instead indirect through financing or supply chain links to high dependency sectors.

Laura Coomber (04:21):

I mean, you can, the two ways that we consider this in an index screen was either a location-based approach or a sector-based approach because there are certain sectors that have an outside impact on biodiversity that are responsible for a very significant proportion of the kind of business activities that are driving biodiversity loss

Mike Disabato (04:43):

Just to drive that point. Home location-based exposure is the share of a portfolio linked to companies operating in what's called biodiversity sensitive areas. That's a definition set by the WWF's biodiversity risk filter, whose data we use in the screen and which tells us about 17 risk indicators at the asset level like water availability or timber provision or soil condition or water condition or air conditioner or ecosystem conditioner or pollination or forestry canopy, stuff like that. The company gets a high score if its assets are in areas where there is either resource stresses that are likely to impact them or if they need to possibly build out better stewardship policies because they're located in an area of, let's just call it pristine biodiversity, and their impact of that area may create some intense reputational problems that they then have to deal with. Now in addition to the location-based exposure, there's the sector-based exposure, which is the share of a portfolio exposed to sectors known to have significant biodiversity impacts or dependencies and which Lauren is going to explain more here in a second.

Laura Coomber (05:50):

And then there's a lot of research and frameworks and analysis that really is able to link those sectors to biodiversity and you can think again of agriculture or fisheries or mining as bringing some of those companies or some of those sectors in the companies within them that really drive biodiversity loss. So I mean what we wanted to achieve was a framework for a screen that could use readily available trusted data and an easily understandable framework and methodological approach that just kind of was simple and identified essentially what you might call the worst offenders, the biggest actors in terms of biodiversity loss so that you can exclude those from within a portfolio or any other kind of setting.

Mike Disabato (06:33):

And so basically what Lauren and Co did is they took these exposures, the location and the sector exposures said, okay, this sectors and the companies in it have a very high impact to biodiversity or high impact to biodiversity, let's say. And said, okay, those securities that have this high or very high impact, those are going to be tagged and those are either going to be excluded or underweighted compared to their better performing peers who will be included or overweighted if they don't have a

high impact on biodiversity. It kind of depends what you're going to use the screen for. You can exclude companies or you're going to tilt your portfolio toward the better ones and away from the worst ones, whatever. It's up to you. Now that to me, an initial blush seemed pretty simplistic for assessing the web of everything that is biodiversity, just a yes no sort of bully and designation. Does that mean we're missing a lot when it comes to biodiversity risk? Is this too simple of an approach? Are we going to kind of lose the forest and the trees in this situation? I asked Laura.

Laura Coomber (07:34):

I mean it's a great question. It is a recognizably simple approach, but I think that simplicity is important for the first stab at creating something like this. So in the early days we really struggled a lot with this question kind of from an academic perspective or where do we draw the line on nature risk and biodiversity because essentially the entire economy is connected to biodiversity. So how do you draw those boundaries and create a framework that makes sense? At the same time, when you talk about financial decision making and index data choices, it needs to be data that's really well trusted. So it needs to have a long history, it needs to have limited volatility, and it needs to be something that really you can really confidently use within an index framework. And so you need to combine the realities of the data availability alongside a methodology that really makes sense in terms of understanding biodiversity risk risk. So when you combine those two things, we have a methodology that clearly identifies what you want to remove in terms of high impact sectors, and we have data points that really make sense and being combined in it in a logical way.

(08:39):

And we've heard from clients already that they're very kind of, they're a fan of this simple approach because it makes something that is inherently complicated, easy to understand and easy to communicate.

Mike Disabato (08:49):

Can you detail a bit as to what those data points are that you use to ensure the flag was to accurately capture biodiversity impact? You mentioned that you have some data points that you use to capture risks that aren't shown in the location or sector exposure. What were those?

Laura Coomber (09:05):

I mean, controversies are the easiest data points to understand. So companies operating within a certain sector that have a very clearly biodiversity related controversy such as mining exposure or plastic pollution and that kind of thing. So those are the most well-known data points, but it's also revenue exposure to certain high impact commodities. So you can think about palm oil or would be some other ones, soybeans for example, those kind of commodities that we very well understand and that we have good data for, and that you can also set a kind of threshold for in how strict you want to be within a framework. So you can say 10% or 20% or whatever is in terms of how strict you want to be

Mike Disabato (09:51):

Threshold as in the sort of exposure you allow yourself in that sector, no more than 10% or something like that for a very high impact company. And controversies by the way are our metric that flags companies for their alleged involvement in acts that might carry financially, material, reputational risks on the ground, publicly reported type of acts. Those are the controversies. Anyway, I think an important thing to remember and the annoying caveat to remember with all this that I believe many who are following the space are already aware of is that when we build a financial model that measures some sort of externality such as biodiversity, we not only need to convince our clients to get on board, but we need to ensure our clients can convince their clients or plan participants depending on what sort of person wants to screen, they have to convince those individuals that this approach will appropriately account for such complexity as biodiversity.

(10:50):

If you get too complex in the initial go, you're in danger of scaring off let's say asset owners who are working with investment teams to manage a lot of people's retirement funds, for example, and don't want to leap into something that only a PhD in biology would understand because if it fails and it's not easily explained by this investment team to the plan participants, well, you could be in quite a pickle, but once the simple approach is understood and validated with historical data and bought into, you can then move to a more complex approach. Everyone says, okay, we agree that biodiversity is important, it's material. Let's build on this, which is actually something Laura and Co are already doing.

Laura Coomber (11:30):

So the next big frontier is really location-based information. So our geospatial asset intelligence data. So the value of location-based information for biodiversity is huge that we really need to understand how the context of a company's operation within the biodiversity context.

Mike Disabato (11:48):

So to be specific there, what you're saying is you want to move on from just looking at whether a company's manufacturing facility is located in a high risk area as defined by biodiversity and move on from giving it a yes no flag and build a product that actually looks into the facility that the company operates in that area and how that facility is literally impacting biodiversity and thus the company's revenues. Is that

Laura Coomber (12:12):

I think it depends on the kind of risk data that you're using or what you're trying to understand. So one of the major ways that we're working with location-based information is with the WW F biodiversity risk filter information, which was just launch today with new metrics actually. But essentially you combine asset level activity like you're just saying, like a manufacturing operation potentially in the Amazon with location-based information of how sensitive the surrounding areas and therefore potential risk exposure. And if you have all those metrics and information that you can aggregate at an issuer level, you can potentially reduce the overall exposure of your portfolio by removing some of those very high risk issuers like you just mentioned, or you could reduce exposure or decide on an appropriate level of exposure to that kind of a risk.

Mike Disabato (13:01):

Moving from a situation where you're saying there's a mining company, a lot of its assets are obviously in metals and materials. Those metals and materials are in an area with a high amount of biodiversity risk. They're in some sort of forest, and so because of that, company X is likely has 5% or more of its operations that will be impacting and is dependent on biodiversity. So you're going to underweight that company in your portfolio. You want to move from that to say, we know that there's a manufacturing facility here. We know that the company has an asset level dependence on that manufacturing facility, and then we build in different biodiversity metrics that go into that and actually have a financially material score that comes from that is the greatest risk that you'll face is that score just doesn't come to fruition. It's too high. And so people say, well, that's great that you're able to measure this, but we've been using these metrics for a year, two years, and it doesn't seem like that mining company has had the kind of financial impact that you say it is going to be dealing with. And then that sort of breaks down the signal that the metric is dealing with. Is that what the biggest risk is of introducing these kind of more complex biodiversity metrics to the market are

Laura Coomber (14:16):

I would say so. I mean we have quite a big team now working on this, and one of the major things we look at is we're trying to understand is how you bring in the financial materiality or biodiversity risk and how do you boil down all those really complicated models and understandings of diversity in local locations and WW F data and estimations, and how do you bring all of that into a simple signal that is reliable enough that a decision can be made in terms of investments? That's what you need to get to and that's what takes a lot of work.

Mike Disabato (14:48):

The pieces are actually already starting to fall into place. We announced today as of this recording the introduction of a revenue-based metric at the company level that links biodiversity risks directly to financial exposure. It's the first go at this question, and it's an expansion of those risk flags that are used to build the index that I talked about earlier. It expands them into what share of revenue is at risk due to biodiversity degradation. Their success as a broad tool can allow us to understand the complex web of biodiversity and how it can affect companies, but we have to sort of wait to see what these metrics show. We have to get more historical data and then we will be able to assess its impact and then tweak it as better data becomes available, or as we better understand how companies are impacted by biodiversity degradation or hopefully rehabilitation. And it's hard to stress the importance here of this sort of measurement because it's part of a growing understanding that we cannot just measure carbon emissions if we're to truly measure the impact that climate change has on our economy. We also have to look at how our economy impacts the fragile ecosystems that we all rely on to thrive and survive, and thus how that economy becomes more fragile as those systems get weirder and harder to predict.

(16:12):

And that's it for the week. I'd like to thank Laura for talking to me about the news with the sustainability twist. I thank you for listening. If you'd like what you heard, don't forget to rate and review us and subscribe if you'd like to hear myself or any of the other co-hosts of sustainability now each week in your podcast channel. Thanks again and talk to you soon.

Speaker 3 (16:47):

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