Biodiversity markets: reviewing 2024 and looking into 2025

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Hi friends 👋 Happy New Year!

Let's start with something light - an overview of biodiversity markets.

At a similar time last year, I did a market review and was even naive enough to make some predictions. New year, old me. I decided to repeat this humbling exercise :)

Let's get to it.

p.s. Just like last year, a reminder that I'm a skeptical optimist - the review is bound to sound gloomier than what I actually feel.

Review of last year's predictions

For my own good, I'll try to get through these fast..

“First major public corporate biodiversity credit transaction takes place” ❌

We saw some large corporates purchase biodiversity credits (e.g. Air New Zealand for ~$600,000 or ISA Interconexión Eléctrica for an undisclosed sum). The problem - they were either mixed with other ecosystem services (i.e. carbon) or probably not big enough.

“Biodiversity unit is (somewhat) standardized”

Some progress happened but less than I hoped.

Some notable events:

- Cercarbono & International Carbon Registry adopted Savimbo’s biodiversity unit.
- Nature Positive Initiative (NPI) launched the state of nature metrics framework meant to standardize nature metrics.
- Biodiversity Net Gain (BNG)’s metric/unit is being adopted by the private voluntary market players (e.g. Earthly, Ecogains’ CLIMB metric or Ramboll's Global Biodiversity Metric).
- Biodiversity Credit Alliance (BCA) published their definition of a biodiversity credit.
- And finally, ecosystem condition and extent became even more dominant as a nature measurement system (this will continue).

In the short run, the lack of standardization (and as a result - additional ability to differentiate from other schemes) will benefit some players. In the long run, a fragmented biodiversity unit will hurt most. I don’t see that changing this year.

“Fair and just Indigenous Peoples’ (IPs) & local communities’ (LCs) involvement increases but they remain underrepresented” ✔️

An easy guess but that’s what happened.

The high integrity framework for biodiversity credit markets led by the International Advisory Panel on Biodiversity Credits (IAPB), together with the World Economic Forum (WEF) and BCA is a good summary of the year’s developments. Neither side (i.e. strongest IP & LC proponents and strongest market-first proponents) was fully satisfied with the framework. That’s a pretty good sign that we reached even ground.

We’ve also seen intensified legal talks about the Rights of Nature, which is a step in the right direction. The same trend will continue - we have a long way to go.

“IP and/or LC-first schemes gain more prominence”

Tough to assess. The IP-led schemes remained a minority, mainly represented by Savimbo, EarthAcre and Niue Ocean Wide Trust. They are all well-respected though. And more IP-led methodologies are being developed in the background.

“Biodiversity credit schemes start consolidating” ❌

Not yet. We’ve seen an example of what I believe is inevitable with the strategic partnership of CreditNature and ValueNature though.

I think the consolidation will accelerate this year. We might even start topping out at ~100 voluntary biodiversity credit schemes (currently at ~70 with many more being built in stealth). Over time, probably much more than 100 methodologies will exist but most of them will live inside the already existing credit standards instead of as complete standalone products. I.e. it will follow the voluntary carbon market (VCM) arc.

“A truly globally applicable biodiversity credit scheme doesn’t (yet) exist” ✔️

Here I was referring to the Indigenous (usually in the Global South) and industrialized (usually in the Global North) societies. I’d say that we still don’t have a global credit scheme *fully* applicable to both.

“Offsetting conversations are finally put to rest in the voluntary markets; contributory approach dominates” ❌❌❌

My biggest miss of the year. At this point, I stopped believing that the contributions vs offsetting discussions would ever fully die down. I do think we’ll start seeing more offsetting-focused schemes though.

“Voluntary biodiversity market experiences a first real low” ✔️

Some might disagree (the space remained loud, we had COP16 with many cute announcements, etc.) but I think it did - the market is still mostly theoretical. Many nature-based solutions players paused their involvement in the voluntary biodiversity market (with many of them continuing to rely on carbon markets instead). Private discussions are also more often bleak than not.

I still believe that in the long run, biodiversity markets are inevitable (especially compliance-based). But lows are part of every market & are especially painful in the early cycles.

“Nature tech continues growing”

Although the market reports are positive, I've seen less sunshine among my founder friends.

Some companies are doing okay, others are in survival mode. Quite some have shut down as well. And I don't see practically any nature tech companies thriving yet. The only for-profit companies actually doing well at this point in nature markets are, unfortunately, the consultancies.

We also haven't seen a big increase in new nature/biodiversity-focused venture capital (VC) funds. Many are struggling to fundraise themselves.

Over time, I don't see how nature tech is not a significant market - limited natural resources, our dependence on them and a growing global economy/population will make sure of that.

"Nature-based carbon credits rebound big time" ❌

As far as I know, the 2024 VCM data is not yet in but that didn't really happen. Still survival mode. Let's see if the finalization of carbon market rules (Article 6) at COP29 will make a difference this year.

"First scandal between Indigenous Peoples and the voluntary biodiversity market breaks out" ❌

I'm really happy to be wrong about this one. Either way, I believe it's inevitable.

"Marine biodiversity markets remain theoretical"

With "marine" I was referring to ecosystems beyond the coastal areas. Not much action here (with the exception of Niue Ocean Wide Trust). Although I didn't expect much action in the coastal space either. Thankfully, SeaTrees and now Clean Tides have proven me wrong. Are we seeing US-based companies start to dominate the coastal biodiversity credit space? 👀

So, where are we now?

First thought - we've seen less progress than I (& many others) expected. Either the progress is actually slow or I'm just affected by my startup-y expectations. Probably both.

We've been limited to ~20 small transactions, usually below $50k. We're still at the "what is a biodiversity credit?" stage. Potential buyers and demand facilitators are still asking that. And it's still a hard question to answer. Different people want biodiversity credits to be different things. If one group doesn't start dominating the space, standardization will remain slow, continuing to drag the rest of the market.

The market also picked up some wins with IAPB/WEF/BCA aligning their views on high-level market rules, continued market innovation (especially on the methodology/biodiversity quantification side), some standardization progress and experimentation with building voluntary credits on top of compliance markets.

The asset and commodity question

Last year, I said that "biodiversity credits function more like assets stuck in the body of a commodity". Although some successful commodity-focused work is happening (primarily driven by Savimbo), the asset-first vision took a stronger hold of me. There are just too many "but waits" for almost any biodiversity credit/scheme/project comparison. I've learned this the hard way in a credit pricing research we hope to publish soon together with Joshua Berger and Karl Burkart. As the one and only Sophus zu Ermgassen recently said, "It's not the UNIT, but the PROJECT that counts".

And I'm saying that fully aware of the neocolonialist/anti Rights of Nature implications that an asset-first biodiversity credit vision could bring. The real estate type of market is winning. The fragmented market vision is winning.

Nature-based solutions and real-world economies

That's my newest obsession - connecting nature-based solutions (both private market-based and public non-market) with productive landscapes. Something that many folks in this space have understood from the beginning.

Pure credit projects are great. They can be very risky though (especially biodiversity, at this point). So much can go wrong. I wonder what would happen if we integrated more of these projects into productive lands, both food and non-food? What would happen if we incentivized the biggest landowners to add biodiversity/carbon credits into their revenue mix? Even if it's 5-10%. Natural capital investors like Foresight Sustainable Forestry Company or Climate Asset Management might lead the way in this experiment.

We might require new crediting standards and methodologies for such use cases. Obviously, the question remains - who would buy these credits?

This concept has many holes but I think it reflects an important point: nature-based solutions must be more directly connected to the economies that produce and consume things. Out of the 3 key biodiversity credit activities (1. preservation 2. restoration 3. sustainable use), we should focus on the third more. If we continue separating nature from economies, nature will continue to be ignored.

Insurance

Another example of real-world economies is insurance.

I recently (involuntarily) found myself in Miami Beach for a couple of days. There I saw many wealthy suburbs with impressive coastal villas. Throughout all that time, I couldn't stop thinking about 1. how expensive these properties are 2. how vulnerable they are to climate/nature breakdown and 3. how much money these owners would be willing to pay to avoid property damage (or even loss). Could we plant, for example, mangroves to mitigate some of this nature risk while rolling it into an insurance product or selling biodiversity credits for it?

Until now, biodiversity credits have been far away from insurance. Actual nature risk management requires highly specific actions in highly specific locations and no generalized credit scheme can serve that. Maybe we'll see a credit methodology directly go after nature risk in 2025? I hope so.

Compliance markets

I definitely haven't covered the most important part of biodiversity credit markets enough in the past - the compliance schemes. They have been and will remain the most significant part of the global nature markets. Its market size is debated but stands somewhere close to $10b/year. Compare that to VBM :)

And the development of new national biodiversity credit schemes is accelerating. I'm aware of ~20 countries that are working on such frameworks. You'll find a solid overview here on page 28. The voluntary markets will build on top of and will often be rolled into the compliance ones.

Predictions

Covering my last year's guess didn't leave me with much for this year. Here are a couple though:

VBM market size will officially pass $10m

The often-quoted $8m market size number from 2023 has been proven to have been an optimistic overestimate. After trying to follow every public biodiversity credit transaction, Pollination's most recent estimate of ~$0.325-1.87m (probably on the higher side) checks out much better.

But this year, I think we'll finally pass the $10m mark. Probably barely.

The majority of the market will consist of a couple of larger corporate purchases (~$1m+) from existing pending deals and as a result of the first CSRD & TNFD-driven corporate nature strategies. The market will remain dangerously oversupplied and underdemanded.

Stacked/bundled credit demand will continue dominating the standalone biodiversity credit demand

Although the pure voluntary market is minuscule, biodiversity is taking over in different ways. For example, more project developers are collecting biodiversity data for their carbon projects to 1. go beyond the existing requirements and hopefully achieve the biodiversity premium & 2. hopefully issue biodiversity credits in the future. I call it the "shadow biodiversity credit market". And it's definitely much larger than the standalone one.

VBM is still immature. VCM is not perfect but it has an existing sales pipeline that more biodiversity credit developers are plugging into. Wilderlands' recent partnership with a carbon offset solutions provider to sell 70,000 credits is a great example. Under their current pricing, this might've brought them ~$140-490k in sales.

As dangerous as stacking/bundling can be from an integrity and additionality perspective, it will only grow in 2025.

There still won't be a clear biodiversity credit use case

In other words, contribution vs offsetting claim debate won't slow down. Which automatically means that we'll still hear corporates ask "What is a biodiversity credit and why would I care?" in a year. Having said that, the public image/corporate social responsibility (CSR) demand driver will still dominate.

If offsetting is not included, VBM will never achieve true scale

Speaking of the claims debate, contribution-only claims cannot uphold a global *voluntary* multi-billion dollar market. I know that "billions" is very far away from where the market is now but if we're not aiming for that, why are we even bothering? Nothing else will move the needle. Actually, only 100s of billions would move it.

Without offsets, at best VBM will become "philanthropy on steroids" (which might be the best outcome for voluntary biodiversity credits anyway). At worst, it'll slowly die off and take a lot of well-meaning companies and initiatives with it.

I'm aware of the main scientific, ethical and market issues with offsetting. But I must be realistic if scale matters.

We'll see more biodiversity credit specialization

The demand struggles is also an opportunity to innovate. One way to do so - build for very specific buyers. That's where the "what - who - why - where" framing can come into play.

We'll see more industry (e.g. food and ag/construction/textile), demand driver (e.g. contributions/offsetting/nature risk/etc.) and location (e.g. urban/forestry/coastal-only) specific methodologies be developed. We might even see the first baby steps to creditbased biodiversity insetting. I won’t lie, this is more of a hope than a fact.

Parting thoughts

If I had to summarize it, **biodiversity credits are both crucial and overhyped**.

Crucial because they have a lot of systemic potential, both positive and negative. Overhyped because they are receiving more attention than they can justify. At best, they will be a significant part of the global nature finance mix - let’s say 10-30% of the almost $1 trillion we need now, and growing fast. But I doubt it will ever reach the on-the-ground significance of governmental domestic budgets and tax policy (i.e. 50%+ contribution to the nature finance mix). Seeing how reliant these biodiversity credit markets are on sound policy (both compliance and, ironically, voluntary), we must admit that.

I get it - private/market-based mechanisms look sexy (and promise riches) while policy looks boring (and does not promise riches). If we want that to change, maybe we should try to value policy entrepreneurs more, as Eric Wilburn suggested. Markets and policy can play well together.

Either way, we must get the biodiversity markets right. Let’s see what 2025 brings :)