

Eric: [00:00:00] In this podcast, we have Anna Lerner Nesbitt, the CEO of Climate Collective. We recently had Will Foulkes of Stability on to talk about carbon offsets. In this episode, we extend this to climate action generally also encompassing carbon offsets, and we also talk about regenerative finance. One thing that Anna states particularly well in this episode is that as it relates to climate action or collective climate action, the innovation is not primarily in the tokenization of the assets, but in digitizing the value chain to create transparency and verifiability.

And this is something that we cover extensively in this episode. We are kicking off an exploration on the convergence of new market models, such as this one, new technologies and changing global economic dynamics. Anna, in her role as CEO of the Climate Collective really sits at the intersection of this convergence, which makes obviously for a [00:01:00] fascinating episode. Now we're gonna get into it. One thing I want to note is that Anna talks about when she was at the World Bank, she had the experience of sitting in on the C O P or the cop. This is the conference of the parties, a summit of the parties that was, that signed the UNFCCC or the United Nations Framework Convention on Climate Change.

That was a treaty that came in for us in 1994. So that's that reference. So with all that said, we're gonna kick it off. I really hope you enjoy this episode, and I hope to do more like this.

Welcome to The Encrypted Economy, a podcast exploring the business laws, regulation, security, and technologies relating to digital assets and data.

I am Eric Hess, founder of Hess Legal Counsel and your host. Join me on this journey exploring the reach of these transformative technologies.

Excited to have Anna Lerner, c e o of the [00:02:00] Climate Collective on the podcast today. She's gonna talk about her background, but her background both at the World Bank as a development economist and a Facebook, what a career that has led you to this particular role.

It almost seems like it's perfect. With that said Anna, first welcome to the Encrypted Economy and love to hear, I think everybody'd love to hear about your background and how it led us to where you are now.

Anna: Yeah. Thank you so much for having me. This is really exciting. I've been on my spin bike in the mornings in my basement, listening to your product cast quite a lot recently.

Eric: Which spin bike?

Anna: I have a MYX bike, M y x, like

Eric: Oh, okay.

Anna: Why I bought that one. I'm sorry. I'm, they're good, but I should have just gotten a peloton. I think

Eric: I, I went with Peloton. I've been an addict for years now. Since since pre covid.

Anna: Yeah

I have its exactly the same, [00:03:00] just a little cheaper and like a little buggier.

Eric: All right.

Yeah. The price might be coming down on Peloton, but anyway, we're not here to talk about Peloton, so

Anna: maybe I can after this. Sounds good. Yeah, I do agree. I think I feel like most of my career prepared me for this job, so it's quite exciting to be here at this time. So, I'm Swedish.

I'm a development economist. I left university. I did a brief stint in Brussels working on EU policy, the renewable entity policy directive of 2007, for those of you who are in the note which was quite significant as a start to decarbonization. But then I went down to Mozambique sub-Saharan Africa and knocked on a couple of doors.

I had written my master thesis about the EU policy and how it impacted sub-Saharan Africa's ability to participate [00:04:00] in the renewable energy economy. And I found the Germans, GI Z the German sort of development organization, and they had a really interesting opportunity that I claimed And I started working for GI Z as a program manager for a project on renewable energy and was called sustainable biomass at the time.

So, I spent five years in Saharan Africa based in Mozambique working across all the sad countries. So South Africa, Tanzania Zambia, Zimbabwe, Botswana, and so on. It was a wild ride for a young Swedish, recent graduated economist. I will say,

Eric: I can only imagine .

Anna: Fantastic. Amongst other things I did energy efficient cook stoves and we got gold standard certification.

But I think I'll come back to that later on. But that was quite the milestone. The gold standard certification had just [00:05:00] started. So, we were very early pioneer. So that work. But then I moved over to the World Bank, outside by the World Bank in Washington, dc left Mozambique, packed up my thing and flew over to America and arrived in Washington, dc.

Such a contrast in so many ways, stepped into the World Bank offices even more of a contrast, and was tasked to work on climate mitigation finance. So climate finance, if you will focused on carbon mitigation. And inside was called the Global Environmental Facility, the GEF, which is a financing mechanism of the UN F Triple Z.

Quite quickly after arriving, I was sent to cop 17 in Durban [00:06:00] and sat in on the complicated negotiations between countries and interest groups during cop and learned a ton. It was so fascinating. And I think what really struck, stuck with me was this clear sense of urgency for the need to do something right away, even though we were, we were miles away from like today's awareness of decarbonization and, Paris agreement goals, but it was clear that we had to do something.

But also, it was just such an inefficient instrument. It was such Yeah, I think I was inspired and energized, but equally disillusioned and frustrated for being there. I spent seven years in total at the World Bank and moved from climate finance over to renewable energy and

energy efficiency investments in Latin [00:07:00] America, and did a lot of digitization and ICT work in sub-Saharan Africa and Asia.

So working on data, digital technologies and trying to apply these across the world bank's portfolios across sustainable development and climate change activities around the world. And I think that's how Facebook found me. So, I was hired by what was well today, Meta, what was hired by Facebook to join them in Menlo Park to initially work on Electrifying Sub-Saharan Africa.

And that mandate was broadened to then include all of the sustainable development goals. And I was set in a sort of start leading a team that built the strategy for Facebook for how to drive outsized [00:08:00] impact on the sustainable development goals. So really thinking about where Facebook is uniquely positioned, what resources it has and how it could support advancing the UN SDGs. Did that for a couple of years, and that was really interesting.

Again, learned so much. This was after Cambridge Analytica and one of my unique, one of those unique superpowers that I thought Facebook really had and could contribute with was data sharing of privacy preserved data, which obviously as you can imagine, is. It was wildly controversial in many conversations, but also really impactful.

The data for good team at Facebook has really demonstrated how the data that they're sharing is really important for emergency organizations. So, I guess just to say it taught me how to have conversations that are really complicated and try to build trust among actors that are not necessarily trusting each other from the [00:09:00] get-go.

Yeah, so moving them from corporate sustainability and partnerships to Climate Collective as the CEO started in September. It feels like a long time, but it's actually not that long.

Eric: Yeah, relatively shortened. So exciting. And so we'll circle back to the climate collective, cuz we, we need to do some we need to establish a little bit of a knowledge base for the listeners.

So I'll start with a very simple question that, we covered a little bit on the podcast with Will Falk from Stability. But what is regenerative finance?

Anna: Yeah, that is a great question. And I don't know if we have, if the world has one answer to that yet, but I'll give you my take.

So currently in our economic system economic health is defined mostly in terms of production and consumption. [00:10:00] Ignoring somewhat the cost of pollution and natural resource consumption thinking about these as externalities but not really integrating them in the cost. And this leads to a negative impact on our natural resources. The broader concept of regenerative economics. Regenerative economics focuses on building systems that restore and preserve environmental resources and ecosystem services that are essential for planetary health. And then regenerative finance as a sub-sector to regenerative economics combines the mission of regeneration with decentralized finance which are as well as technologies and advanced data analytics.

Fundamentally, it's an approach that internalizes the cost and the benefits of changes and to natural resources and creates incentives for people to take planet positive actions and economic disabilities. [00:11:00]

Personally, I would say that regenerative programs are more ambitious than sustainability programs. I worked for many years in sustainable development, if you will. I think regenerative development or regenerative programs are more ambitious than they are. Sustainability by definition is about maintaining the current state of the environment, whereas regenerative programs really aim to restore the environment to its former states to a place that's more positive.

Eric: Excellent. And are there any regions that are particularly active for studying regenerative finance? Like in Alaska, I've heard that the contrast between oil drilling and what's going on to their natural environment due to the permafrost and the impact on fisheries, like there's an extremely sharp contrast between the money that can be generated from energy extraction versus other dependencies in the environment where it's actually probably one of the more.

Polar examples of two [00:12:00] forces almost colliding within a particular region. Are there other regions like that?

I

Anna: think you could think of almost our whole system as that, right. Like the idea of not internalizing these negative impacts on the environment that we're having in our current system puts those tradeoffs sort of crossroads.

I think it's a bigger problem of, unless you can quantify the environmental externalities or the negative impacts you're having on the environment. as well as, and this is actually harder as well as quantifying and measuring or projecting the positive impacts that you could have on preserving these assets or these ecosystems.

I think it's really hard to go up against large investors or economic systems that are [00:13:00] currently favoring the more extractive option. So it goes back a little bit to the need for data and transparency and accountability in these systems, but also to who has agency and who has voice, like whose voice matters and who has a say in these decisions. And that's, yeah, gets a bit political.

Eric: So touching on the regenerative finance, this is a more, I call it recent phenomenon. Do you think something like this could have been successful 10 years ago?

Anna: I think that the practices and the knowledge of how to build regenerative farming systems or regenerative societies are ancient.

I think they've been around for a really long time. I think there's always been people and organizations, indigenous groups et cetera, that have been advocating for more [00:14:00] sustainable land use practices or more yeah, more holistic way of living and using resources. I met many of them, for example, when I was working with small holder farmers in sub-Saharan Africa.

It was fascinating going out to the villages and learning from them. Understanding sort of the extension farming systems and how they had practices that were very different from kind of the westernized sort of Green Revolution techniques that they've been told to use, et cetera. , I think the big difference there are two things that are like big difference in why it's, I think it's happening right now.

One is these groups were always fairly marginalized for a lot of reasons, but they never really had the voice or the agency to speak to this on a public arena. And then I also think that [00:15:00] we've had such technology advances in the last couple of years that sort of, the interest, the combination of increased awareness of the need for decarbonization and changing our ways of living, the urgency around that is coinciding with technology advances.

We now have access to fairly reasonably priced sensors and iot satellite imagery that can be used. Machine learning and AI has really taken off. So, I think that's one of the reasons why it is happening right now. Why it's being like, promoted in a lot of different places by a lot of different actors right now.

And I don't think that would've been quite possible 10, 15 years ago.

Eric: And when we, let's talk a little bit about the technological advances. What, which technological [00:16:00] advances do you think specifically? You referenced i o t you mentioned machine learning and ai and blockchain.

Do you wanna maybe like just tease out each one where you know, how it's impacted it?

Anna: Yeah, so I think and this is something I keep talking about, but I think that climate and environment sector has not really had the benefits yet of digitization. The data revolution that, we've seen over the last 10 years just hasn't really.

Reach these sectors. I probably have some thoughts about why, but maybe not as well formulated today. So I think we've, like regenerative finance is this really unique movement where they're combining advances in digitization, amicus con connectivity around the world, mobile phones in almost everyone's hands with this notion of a different, [00:17:00] the need for a different economic system.

And I think a lot of it is powered by these technologies that you just mentioned. I think you need a combination of iot, internet of things, which I think of a lot as hardware sensors and chips con communicating in automation. Generating massive amounts of data that can be used to then analyze some of these happenings and build models and predictions, leveraging machine learning ai, but also computer vision.

Extracting information and data from pictures, for example, or videos. And blending this with the advances in financial integrity and decentralization that blockchain has achieved over the last couple of years. And I think combining all of that is when you get this opportunity to [00:18:00] engage people in a different way, bring them all together, coordinate the actions of large and various varied stakeholders, and then drive that towards something really positive as well as measure the progress and the outcomes of the work that you do.

Eric: are there any organizations that you think are particularly active in leveraging, like machine learning? Because machine learning I'll just put AI to the side for now. But it takes a lot of resources to leverage machine learning. I wonder like the World Bank; I don't know if they do have a group that's particularly successful at deploying machine learning techniques for measuring these things.

But I'm just curious or even private organizations or foundations or maybe climate Collective, what's a level of maturity as it relates to machine learning technologies cuz they are resource intensive?

Anna: Yeah. No, this is really good question. I [00:19:00] actually one of my last projects at the World Bank was looking at leveraging machine learning as a way to detect anomalies in the energy consumption in Jamaica. So it's like such a, like very specific niche example, but electricity utilities in Jamaica has, is experienced a lot of non-technical losses, which in the case of Jamaica is essentially electricity theft for lots of different reasons.

And using machine learning instead of looking at each individual account and trying to figure out, is this theft, this is like malfunction of the technology. With machine learning, we were able to build a model that could detect integrate a couple of risk factors to if this account would indeed be likely to be doing theft or would just be a technical anomaly.

And then they could use their limited resources to go after the accounts that had large amount of electricity [00:20:00] theft and thereby tried to offset some of these losses that essentially, everyone else end up paying for. That was the World Bank. I wouldn't say that the World Bank has necessarily a large group of machine learning scientists on staff.

But this was a couple of years ago and I know that they're, they've, they have expanded their resources and their staff with these type of capabilities. They have a really advanced economics and scientist groups in what's called deck in the bank. Said there were a couple of groups that early on looked at how to deploy machine learning and data analytics for social impact causes.

data.org is a group Rockefeller Foundation actually took some really important early steps to, in sort of ecosystem investments and enabled some of these groups to [00:21:00] almost borrow their expertise or lease out computational capabilities to nonprofits. Bigger picture, I think this has been made cheaper and easier with the help of cloud computing and software as a service that's proliferating now.

But I think also in terms of for development causes or social good impact there've been a lot of groups that have tried to make this easier, a little cheaper and a little more accessible even for organizations that might necessarily have machine learning experts on staff.

Eric: Excellent.

So getting back to the we are on. Within the regenerative finance movement. Could you talk about maybe some specific areas that you're excited about?

Anna: Yes. So many and I'll make sure I'll get some links in [00:22:00] maybe the show notes, so can look these groups up. But I think so we talked a little bit about this, I this need for digitizing the environment and climate sector.

Like data and digital technologies have generated massive advances, cost savings, standardizations and efficiency gains to most sectors. Like I think of e-learning e-health remote health, I guess we call it an e-commerce to mention a few that impact like our day-to-day lives. The environment of climate has really lagged behind, which has made mobilizing climate finance and building trust and accountability in these sectors slower and harder.

I think the regenerative finance movement has already made progress on some of these. I'm thinking of early efforts to digitize environmental assets like carbon credits into tokens and non-fungible [00:23:00] tokens. NFTs, while these early efforts focus more on taking a, an analog asset or a paper version of a credit letter or of a carbon credit and generating a digital twin This was an important first step, but I think this is really like the first step I'm seeing the real innovation amongst groups who are currently going beyond and working to create a fully digitized carbon credit value chain.

This could be groups like Toucan that's trying to build the infrastructure for all of this, but also Flow Carbon, Fallow, it's an interesting, more recent group, Senken a group out of Germany that's doing really great work. And they're all trying to not just tokenize these assets, which I think has benefits in itself, but not really.

That's not like the groundbreaking innovation, but actually trying to digitize the whole value chain and make it all more efficient, more [00:24:00] transparent and verifiable from project development, from the start. Then I also think that their efforts to leverage tokenomics or these sort of incentive mechanisms that you can build on top of blockchains to make climate action embedded in our day-to-day financial actions.

Spirals is a really interesting group that's working on this, trying to create green yields from people holding assets, holding digital assets, and then reinvest that into climate action. And even the more ambitious ideas around banking or backing monetary assets with nature and biodiversity, I find really encouraging.

Not necessarily mature and ready maybe, but super interesting. Celo, which is carbon neutral layer one, blockchain and the ecosystem where my organization was originally founded [00:25:00] has several teams working on mechanisms to design digital currencies such that their widespread adoption would essentially internalize the benefits of natural capital preservation and reverse this ecological prize we're in.

And a t if you're interested in this, aside from reading ministry of the Future where they talk about some of this there's a group behind the stablecoin Mento that have been my thought partners in, in this work. So those are all some examples that I'm seeing some really interesting innovations that I think are like just scratching the surface and could really become impactful as they grow.

Eric: Could you maybe touch on the progress that some of these efforts and maybe climate Collective has made in changing the economics of funding planet positive projects in developing countries?

Anna: Yeah. Yeah. This is [00:26:00] also really, this is at the heart of I think the promise and some of it what we have started to show, but we still have little ways to go before we can demonstrate this on, on, at scale.

But as I mentioned, I'm a development economist by training. I spent five years in Sub-Saharan Africa and from there on, really focus my whole career on ways to lift communities out of poverty. And I've been really frustrated at the lack of innovation when it comes to these models.

Business models are organizational structures. I'm super energized by the new models and approaches that I'm seeing popping up around the world. For example, in Latin America, there's a group called Ethic Hub. They're active in Mexico Brazil, Honduras, and Colombia. And it's essentially a refi protocol that's helping unbanked farmer access capital at really low interest [00:27:00] rates.

You could almost say that it's a platform for under collateralized loans using data and technology to make that work. So how does it work? They have yield farmers, so people backing or staking their co token that then back actual farmers that are implementing these regenerative practices on the ground.

So, it's almost like a crowd lending backed by crowd collateral. Then in the Philippines we have a group called Gain Forest. They're tapping into the need for on the ground measurements and data collection that are critical parts of monitoring, reporting, and verification of any environmental projects and particularly carbon credit projects.

But they're trying to digitize the process and involve the local community in a like measure to earn or measure to be compensated [00:28:00] digital. Mr. V Project. It's actually similar to a project coming out of this Swiss Federal Institute of Technology in Zurich called Simplex Dna n a. They have a mission to build a comprehensive d n a based measurement system for biodiversity and have created a, what they call a proof of life protocol as a low-cost approach to biological monitoring, which will help create a foundational data layer for new biodiversity and ecosystem services.

And these credits that could represent a more sort of comprehensive view of planetary health than carbon. This is aligned with sort of the outcomes I think from the COP in Montreal most recently, where they started talking about biodiversity credits in addition to just the standards, sort of carbon credits which I think is super exciting.

And lastly, We've known for a long time that communities [00:29:00] closest to the impact of climate change have some of the most impactful solutions or the knowledge for how to get to resilience and adaptation to climate. We also know that in order to protect endangered wildlife and stop deforestation on the ground, local communities need to have met their basic needs before they can be stewards of protection and gen regeneration.

If your kid is hungry, it doesn't matter so much that the Impala in the forest next to your village technically is in a protected area, right? So at the same time, it's been really

complicated for the international community to find ways to make these direct payments or livelihood supports to these communities in a scalable way.

So, leveraging defi, decentralized finance innovations and combining. Universal basic income, which is a concept that we can link to also in the show notes. [00:30:00] The universal basic income payments and digital currencies that are instant and have minimal transaction fees, I think has the potential to combine the best of defi and refi and result in meaningful livelihood improvements for these communities, but also build resilience in these communities and support them in their work that helps us essentially create these biodiversity protections and ecosystem services.

Okay. So there was a lot to unpack in there, and you did a great job. I have a, I guess a couple of things. One to double click on the proof of life in biodiversity with carbon offsets, you can measure, I think there's like lidar and different things that you can actually measure the amount of carbon benefit to the atmosphere better for localized projects, what have you.

But that's more measurable. As you shift the proof of life and [00:31:00] biodiversity what's the metric for that?

Yeah, this is,

again, like iot satellite imagery has helped us to create these maps of canopy cover and make estimations of, okay, so how much carbon is stored in this tree? How tall is the tree? How dense is the greenery? We haven't even started talking about the roots and the mis under the ground and soil carbon, which is, there are some advances, but it's still complicated. Proof of life, which takes it to a different level. But what I really like about Simplex DNA is their approach both to involve people, but also having a really, a fairly simple, I should say, fairly simple approach.

So they essentially develop these water testing kits and then they can send them to anywhere in the world. So if you have a watershed in your forest next to you, which I'm sitting here in the forest in Maine, and they have a little creek that's going down. So I could [00:32:00] go to this little creek and I could make a water sample, take a water sample here and package it up according their instructions, and then send it to their laboratory. actually don't know if it's in Zurich or they have their laboratory somewhere else. And then they are able to look at the DNA here and store this data that I contributed to in this larger open source database and contribute to the global knowledge of what type of biodiversity exists in this little part of Maine.

And then you can either support this, like fund this by being, I don't know, a researcher or investor that wants to know this information. So goes to this database and says, can I have that? And then pay a certain, small fee to get access to the information that I have collected. And they have gathered and aggregated and facilitated.

Or you can be just a backer of this initiative that you [00:33:00] believe in finding ways to map I biodiversity and. Proof of life around the world, cuz inherent benefit in having that type of data aggregation and thereby support their project that way.

Eric: Excellent. I was just listening to a podcast the other day that described the ocean as or these water bodies as being a genomic soup, like the super containers.

You can actually just sample the water and really get this informational database as to what's changing within the environment by this genomic soup, it's the right, because it's fluid, it's like it's capturing everything. And if you think about it, across even large bodies of water it's amazing what you can do.

And I've also heard that it's something that's increasingly being looked at by pharmaceutical industries because there's so much within the ocean and within specific regions of the ocean that could be a front for [00:34:00] additional pharmaceutical research. And then I guess a question about the ubi is the universal basic income really viewed like regionally?

In other words, there is a community that's participating in these. In this regenerative finance initiatives. And to your point, I have to feed my children before I can start worrying about the environment. Is that the way that UBI is being viewed hey, how do we establish some sort of baseline in this community?

And then from that we build into this regenerative there's could be obviously conditions, you have to meet certain things. And is that sort of the framework for thinking of UBI I or, because when I first heard it, I thought more like in, in the US people, every once in a while this notion of UBI I comes up and it's just okay, how much is that gonna cost?

Anna: You're right. Both of you, both of those options I think belong to this larger, Thinking around UBIs personally, I'm a little less interested. I'm Swedish, so very [00:35:00] much in favor of a decent living standards and not working ourselves to death and all of that. So I appreciate the thinking around UBIs and shorter work weeks and all of that, like a citizen salary.

I think some people I talk about, but I'm really more interested in the other point you're making there. So having, we know there are lots of groups that live next to biodiversity hotspots or who are already, from history protecting certain Sources of the high value sources of carbon or biodiversity or areas that provide critical ecosystem services.

And we haven't even talked about oceans in this context yet, but I think the oceans in the soup, the genomic soup there is super, super interesting when it comes to thinking about who's involved there, like what role could fisheries play even here in, now I'm going on a tangent, but like living here in Maine, we have a lot of lobster [00:36:00] fishermen and oyster fishermen.

And the base the ocean here in Maine, the Bay of Maine, maybe it's called, I dunno what it's called is one of the warmest warm bodies of warm of one of the bodies of water that is warming the fastest. So not the warmest, but it's warming the fastest. It's gonna completely change the blue economy on, for coastal communities in Maine.

The idea of UBI for me is more just an, a mechanism or an instrument to find ways to send a small amount of money, just a basic subsistence, a small contribution on a regular basis. So not dependent on seasonality, seasonal jobs or, an NGO coming on going, but just like

a very stable little trickle of income that gets people above sort of poverty line and meeting their basic livelihoods.

And that way [00:37:00] enabling them to not be so focused on, their basic needs, but actually be able to look around and be more supportive in protecting these assets and environmental values that all of us depend on. . Yeah, so that's but I will say also this is just largely experimental at the moment.

I'm have a little think group with a couple of colleagues and we're trying to think about how could we pilot this in the best way? How can we experiment with this to prove it out as a model that then conservation organizations or even, poverty reduction groups like the World Bank could potentially then replicate at larger scale.

It would seem like an, using iot or data collection devices and putting it on potentially even on a blockchain. So that could be consumed, right? Doesn't necessarily have to be. It could just be something that anybody who invests [00:38:00] in it could see the metrics and KPIs associated with it.

Eric: Ultimately, does it have a measurable benefit to the community? Like the community, if everybody's bought into it they need to then, Undertake these activities that, that improve the environment, like whatever it may be. You could have little communities that support regenerative finance and just that's generally the main business of the community, right?

They're focused on whatever that is. I think that'd be, It'd be very intriguing, the old model prior to this real-time data and even the immutable data is, and it's an old model that still exists, but you would invest in a charitable organization and a charitable organization would then, You would look at GuideStar, you'd look at Charity Navigator, but that would be the extent of your understanding of the impact.

Like how much did you spend on [00:39:00] administration? Look at the annual reports and there's good data there. But with the advancement in data science, you can measure it to such a more granular extent and you can be so much even more connected with the actual project versus I give it to you and then you give it to another group and they give it to somebody else and they have to collect information from somebody else, periodically, and then up the chain it goes, and different analysts interpreted and then goes back.

And the way that it's shaping now is it's just compressed to the person who's donating the money, whether it be through like a climate collective or another group that facilitates it.

Or you can even say, hey, I want to invest in a particular project. And you can actually have that visibility straight through.

I, I think that's one of the things that's just amazing that has happened with the technology is that it, the distance between the donor. and the beneficiary just has just evaporated. And the intermediation, we always talk about disintermediation and in blockchain [00:40:00] we need to have disintermediation.

We bemoan it in the context of financial institutions oh they're intermediating, all this, all these transactions. But yeah, intermediation also has, a very real impact on our ability to connect to causes and to understand the impact of our actions on the environment.

Anna: Yeah, no, I couldn't agree with, I was kinda like disintermediation dis inter, yeah. Exactly. Yes. Dis discrimination. Super important. I spend so much time thinking about the carbon markets, so like there, there's like such an obvious case for disintermediation because the price that the project developer is getting versus what someone is paying for the carbon credit at the end of the day, a massive chunk of that is essentially taken by. Intermediaries who perform various levels of useful contributions, but the market is so opaque and so complicated that that's needed today before we're transforming it into a more modern and digital market. [00:41:00] But to your point, that goes in a lot of different places.

I've been an integral part of that network and that industry that you're talking about that is vastly costs a lot of money essentially. And it comes to international development. And there are layers upon layers of groups and intermediaries and, consultants and contractors and all these levels to really get down to the community on the ground.

And I think I think there's the international community, if we talk about charitable organization, international development is aware of this. And I've thought about this a lot and there are a lot of really good efforts to try to both be more transparent in terms of overheads and also minimize overheads and increase the ratio of local employees to not just have these Western consultants that need to fly in and out of DC or Geneva.

But [00:42:00] but it is something really powerful in a system that is decentralized by design and can go directly between this community that is next to this national park or this SP diversity hotspot and find ways to fund them. with like little like fractions of donations that are small and just like regularly tricking for anyone that's interested in this, I two groups I can think of as Impact Markets is one of them that has a really interesting model. It's not exactly ubi, but it's the idea of direct charitable contributions to the ground. And then Good Dollar and Good Dollar is actually the group. They've been, they've existed before blockchain but they're a group that is now trying to leverage blockchain to make their work more efficient.

And they're one of the groups that I'm like thinking about this type of [00:43:00] direct payments ecosystem services pilot with,

I almost think that UBI has a name problem, right? Because whenever you use the term universal basic income, You basically are suggesting welfare, like welfare is almost a separate consideration from.

Eric: Almost, but not exactly, almost a separate consideration from how do we ensure that these communities are engaged in regenerative activities, right? How do we facilitate that? UBI almost suggests Hey, we're giving you a chunk of money. You don't have to do anything. You can watch TV all day long.

Ubi, I know I know that some people would say, hold it. No. You don't. You misunderstand the movement. And I'm not professing to be educated. But to me, like the first time I, cuz we talked about this and I talked with others about this even in advance about this notion of ubi I but anyway, interested in what your thoughts are on, on, on [00:44:00] that.

Yeah,

Anna: I agree actually a hundred percent agree. First time I heard it, I was like, Ooh, that sounds really political. That's not most problems and reputation issues with crypto and like all these, that I, let's not pick that up. But so maybe I'll, I'm gonna turn it to your audience. I think of it as, a mechanism for direct payments for ecosystem services. But that's a mouthful. And it, I think it's only meaningful if you like, really understand what that means and you'd be like, oh, yes, exactly. We need these direct payments to communities so they can perform the ecosystem services.

So, if anyone has a better name for what this should be called.

Eric: She's taking suggestions. Yes, but it's, yeah, I think it's true. Within that community, you need to think of it as part of a broader ecosystem. You can't just simply say that this particular individual is making this contribution.

So [00:45:00] anyway I'm glad we talked about it cuz just the ubi I, it's a, has a very different meaning to a lot of people in the us It was raised for a while, like universal basic income when everybody thought that there would never be any inflation and we would be happily ever after and hey, why not just pull from the money tree?

But I won't go in into that cuz I'll get me into trouble. At least won't be relevant for this podcast. So, we're 46 minutes into the podcast and Anna, believe it or not, I haven't even asked you what is the Climate Collective? I think now's a good time. We've laid the base work and let's start to, let's start to get into it.

Yes. What is a climate collect?

Yes. What is the Climate Collective? The Climate Collective is a leading coalition of stakeholders. So from investors and nonprofits to entrepreneurs and scientists, leveraging trusted, sustainable web three infrastructure to unlock innovative and verifiable climate action at scale.

Our mission [00:46:00] is to build a trusted market for high quality digital environmental assets that enable people and the planet to thrive. And put a little more simply a little more straightforward. We're an innovation network that's made up by people and organizations that believe in using digital technologies to unlock climate action at scale.

All right, so let's talk about where it originated and what were the projects that first drove its formation or followed it.

Yeah. We,

Anna: the climate collective originated from the cello ecosystem. And this was, I think, a natural place for the climate collective to take shape as cell blockchain. Launched on Earth Day in 2021 as a carbon neutral layer one blockchain with a very specific mission to embed

and increase the value of natural resources in the financial system through digital transformation.[00:47:00]

Sometimes mentions through tokenization, but I think it's broader than that. Cello also has a really vibrant and diverse ecosystem of builders and contributors as they are the only chain that is mobile first, or the only chain that I'm aware of. I've never heard of anyone else, any other blockchain.

There's mobile first, but not sure if this's a hundred percent true. Allowing people with access to mobile phone to participate in the digital economy versus the more computational heavy requirements of other chains including digital wallets with. Very complicated passcodes and such participating on the seller ecosystem, you only need a cell phone and a phone number.

This makes on and off ramping in emerging markets a lot easier. Climate Collect was initially created to support the growth of a defi community on cello. So bring climate curious crypto people [00:48:00] together with crypto curious climate experts, with the purpose to direct some of the innovation and the energy of these entrepreneurs towards real world problems like climate change.

And we are just about to pass our first one year anniversary and are tweaking our mandates and focus a little bit. I think we've reached critical mass of projects and organizations building promising solutions to climate finance and verifiable climate action at scale. So going into 2023, we think we can have a bigger impact by supporting growth and scale of these solutions.

So now we're growing our programming to also focus on convening and partnering around market making solutions and on blocking some of those institutional or financial barriers that are still making the growth of this ecosystem not quite [00:49:00] take off.

Eric: And let's build a little bit on the collective part of the climate collective.

Do you want to describe the collective component of it?

Anna: Yeah, and it's a great question. And having worked in lots of different organizations and industries so far, this is really the thing that surprises me the most every day. Web three is a really interesting space to be in. It's I've never really seen collaboration across organizations and mandates quite like I'm seeing in defi.

I think it is the case also in climate in general because it's like we have this collective understanding and the sense of urgency for what we need to do and the complexity of the tax task we're trying to deal with. But in defi it's not just mission alignment and sort of supportive engagement.

It's also like direct [00:50:00] involvement in each other's project, people are helping out lending resources to each other. Building bridges, infrastructure bridges and fixes that act that helps others than just your own initiative, which I think is really incredible. We've tried to institutionalize some of that sense of collaboration and the spirit in the climate collective.

So we're, we have an inner circle consisting of what we call our founding members and a handful of recently added members. And this group, we meet regularly, we share information, we collaborate on sector-wide initiatives, policy engagements or overall try to create this sort of supportive and reinforcing flywheel of engagement for each other's work.

And then we have a wider circle of partners that include our grant recipients. Infrastructure partners [00:51:00] or more loosely affiliated partners or observers that care about our work, support our work, wanna learn more about our work, but aren't quite deep in it enough to be a full on member. This layer is valuable since they offer opportunities for cross pollination across sectors.

They ensure infrastructure interoperability across different blockchains and expands the pool of talent, resources and creativity that we have in our sort of wider ecosystem. We also try to balance our members across a couple of different verticals that I think are really critical in order for us to achieve this notion of verifiable climate action at scale.

And even just that wording is probably a loose, in a sense, but I think the importance is not verifiable. Like we don't wanna just like claim we do things, we wanna actually be able to [00:52:00] demonstrate it transparently that this is indeed what's happening and this is indeed the impact it's having. And then at scale, I think this is the notion around planetary scale and the urgency we're up against.

So the various verticals that our members are operating across are carbon's, carbon market, supply side demand side interventions, biodiversity credits or biodiversity programming, digital M R V, which we mentioned a little bit before. Some members are working on renewable energy and instruments to unlock finance for renewable energy. And then also some groups are looking at mobilizing and incentivizing individual action towards Mr. Planet positive world. So we also try to facilitate mutually beneficial integrations and partnerships across sort of our members, our grantees that have received grants from us, and then that [00:53:00] this wider group of sort of friends of the climate collective.

Eric: Excellent. So, as you're so you've had about what, like a year and change of life as a collective. What is the next few years look like for the climate collective?

Anna: Ideally we work our way out of our job and sounds maybe funky, but this is something we talked about at the World Bank at some extent.

We're like this organization, our purpose should be to not exist, right? And we've fixed the problem we're here to address. But I don't really feel like it was, its interventions was designed to achieve exactly that. So I'm trying to embody that a little more now at the Climate Collective where I think of our US and in our current role in this time of climate crisis and this time of the crypto winter in this time of macroeconomic instability [00:54:00] as an ecosystem supporting platform.

So we are here to support the ecosystem to be successful. And if we manage to unblock specific barriers or generate resources or build trust in the community so we can unlock

more high quality. Climate projects or generate more sustainable corporate demand for this work or investments. And in theory we don't need to be here.

If we do that well and if our sort of wider ecosystem is success successful. So I think one of our key functions is to help cut through the hype, if you will, surrounding blockchain and web three to make it easier for climate tech companies or climate NGOs or just the general audience to understand what this is about.

Like ideally, we make it unsexy. This shouldn't be the topic of media or Twitter threats. This should just be [00:55:00] a basic boring technology that is a really big impact, but it's just accepted for its improvements and the way it can. Change the system and improve the system, and then we just move on and integrate it and work with it.

So I'm really trying to get us more focused on the real world applications that this technology is having and the impacts that we're seeing on the ground and solve some very concrete barriers that we're still having to reach decarbonization at the level we need to correspond to the world's climate goals

Eric: with blockchain.

And there's certainly a lot of hype around it, but it is an enabling technology as encryption is an enabling technology. And it, you can do exciting things with it, but it's the things that are exciting with it, that should be the focus.

Anna: Yeah, absolutely. And one, so one, one thing that is. Interesting, and slightly frustrating is this [00:56:00] over focus on the energy footprints of blockchain.

So not only have we had the merge, which now has changed the Ethereum carbon footprints, substantially from a lot to like almost nothing. But also I feel like that's missing the point. Like I agree that, Bitcoin needs to clean up their act and also reduce their emissions, no question.

And anyone I talk to who is interested in blockchain and wanna build on, on, on blockchain, like my first point is to make sure that they are building on a climate friendly chain. But even, let's say even if we fix Bitcoin's carbon emissions and we use those resources to just go on business as usual, that does nothing but the cl.

That's not what we're here about. We're here to create completely new incentives and systems to [00:57:00] enable this regenerative economy that we need to move on decarbonization and climate goals. Yeah. So I'm, I appreciate that people are concerned about the energy footprints and the carbon footprints of Bitcoin, for example.

I am too. But that to me is just that's a little blip in the road that we need to fix. Let's talk about the big picture, the big opportunity, but also, the big challenges with making that happen.

Eric: Yeah.

Even vegans sometimes wear leather shoes. I guess in your short time what are some of the most effective strategies for coordinating climate response?

Anna: This is probably a question for heads of states. I think one of the biggest challenges is this massive coordination. Failure, if you will, our coordination opportunity, depending

on how we should look at it. There's so many different layers, right? We have nation states that have their own interests and their own national resources and their own concerns around climate impact. [00:58:00]

And you have corporations that have completely different interests, completely different risk appetite, but also concerns around their business models and profitability and then you have citizens who are in between, dependent on both trying to hopefully create a better world for their kids or not have kids because they are so concerned about the future.

And that's, trying to leave a positive legacy. And it, and the coordination of all of that is just, yeah, I don't envy whoever is in charge of this. From my perspective to bring these different groups together and keep them motivated to actually do this work. In the long run, you need transparency and accountability.

And you need to build that in this permissionless, decentralized environment. I just don't think that we can agreed around one centralized system. Otherwise, I [00:59:00] think it needs to be decentralized and I think it just needs to be transparent so people can indeed see that what you said is what you did.

And therefore what I said I will do is what I'm going to do. And. That just allows us to collaborate in a different way. And I can't think of any better technology to help underpin that than distributed ledger technologies.

Eric: There is that the carbon offset market that we're looking to develop when I mean it we in a larger context, but what are some other mechanisms when you're thinking about it?

How do you generate this scalability of climate action, right? Like other, right now, obviously carbon offsets, that's, I think that's gotten the most amount of attention and possible traction because it does provide an ability for people to trade it, to utilize it if they're developing a project in the local community, wants some accountability.

Like what are you doing to measure this? But what are some other future [01:00:00] mechanisms that you see potentially being effective for scaling that, that climate of action? . Yeah.

Anna: So as an economist I love that we're talking about market mechanisms. I think there's no other way to really reach the speed and the scale that we need.

And to your point, we have this existing market, this carbon market, if you will, and it's wildly imperfect. It has full of challenges, but it is a readily available instrument. It exists today and we can use it. You also asked what other instruments there are, and I'll get to that. But today's carbon market, I think lack integrity and transparency, partly because pollution isn't priced as it needs to be.

Or integrated in the cost of doing business. And I think there are a lot of groups working to address these problems. One of the things that I am, one of the [01:01:00] things that I think is missing if we double click on, on the carbon markets for a second . There's just, they're vastly opaque and inefficient.

And it's not particularly mature. It's very over the counter. Like I call someone that I think has some connections with a carbon credit project, and then they need to get a verifier who's a consultant, that he needs to go there and check that on. Are the trees still standing or is this is good enough soil quality for these farmers, this regenerative ag project somewhere in the world.

And then what's the price? And its dep, we don't really know, should we price it on the rest of the vintage or should he just make up a price? What am I willing to pay there? All these it's like a very much, someone who said that, someone said there's like a WhatsApp economy. People are like, negotiating with this one and that one and that did lots of different threads to make a sale happen.

So that needs to change, right? Yes. Market mechanisms, yes. Unlocking finance, but [01:02:00] like that's in its current state is not gonna. get to the levels of finance we need. I'm quite hopeful in as much as I have concerns about the voluntary carbon market, I'm quite hopeful because I know so many great groups that are working to address all of these problems across the value chain.

And they are working with the established institutions that are working with the registries with Gold Standard, and they're working with, the big institutional financing groups and trading houses. One thing that's missing there, I would say is this, the market making and standardization of the market.

So, creating more standardized investment instruments finding ways to also, I would say, diversify their motivation for finance. So currently people invest in this largely because they are buyers of carbon credits for different reasons, and that's their commitment. To forget something [01:03:00] badly they've done once, like whatever motivation, right?

But it's not really if you're going out there to speculate it, to make money, that wouldn't necessarily be a market you look at. So if we can create more standardized instruments and improve the maturity and the liquidity of this market, I think we could also attract capital that otherwise just would go to yield yielding investments elsewhere.

That might not be positive for climate. And maybe they would have to take a little bit of a discount. Maybe it wouldn't be like, I don't know, today's day and age, what you can expect in return. So, this is not an investment advice, but let's say that you're looking for 12% return somewhere. Maybe you have to accept 10% return if you invest in this market, but you're getting 10% return and you do something meaningful and something good. Personally I think that's a smart investment and I think we need to educate the world and motivate them to get to that point too. So that's one thing, but then you talked about other instruments. I [01:04:00] think the one opportunity I think is this highly complicated process of the Paris Agreement and the various articles in the Paris Agreements, article 6.2 and 6.4 that talks about this natural determined contributions that all the countries need to do.

So far, I would say the voluntary carbon market has been driven by purchases from corporates from net zero commitments from different, from different con companies or

from an interest in r and d . So thinking about like the Frontier Fund, that's more sort of experiment experimenting r and d to invest in like carbon capture and other technologies that are not mature today.

But the national determined contributions that all the countries are gonna have to report onto the U N F C potentially offers a new avenue for investment, [01:05:00] both foreign direct investment into this market, into these countries. If Country X says, okay, I need to contribute X to the next year's U N F C, accounting what can I do in my own country to reduce and generate offsets?

And what else could I, what else could happen if I invite for an investors or domestic investors to further these actions in my country? So I think that's an interesting avenue to generate more resources. But this goes back again to the accountability and the transparency of all of this. Our country's just gonna write up a Word document and report back what they've done and what their greenhouse gas inventory is, or will they be a standardized.

Methodology and a way to submit your data and, verifiable claims of what you say you've done. And will this be tracked on a. [01:06:00] Public ledger so that there's accountability in it, and the world can actually verify what has happened. That's probably the million-dollar question

here, right?

Eric: And is it gonna be tracked in the units that are actually going to support that credibility? That's the unit is something that's been intriguing me particularly since I talked to, folks about this localization of environmental impact. And how do you measure the localized impact?

Like what are you doing for carbon offsets locally for what you're creating, what you're developing locally, because I have a

Anna: higher value should that have a premium because you're also probably generating local jobs or, this network effects. It's positive for the community.

Eric: Absolutely. If I'm buying an offset from the Amazon rainforest, that's a big aggregate and there could be a fair amount of double counting. And I'd say the VA verifiability of that is pretty low. When we talk about transparency. And accountability. They're like integrated, like they're like the same sum.

You can have [01:07:00] transparency, but if you don't have the accountability then, how do you actually measure If you have the accountability, but you don't have the transparency, it's the same issues. The ability to account to it on almost a more, on a unit basis, which is why smaller projects that actually facilitate this, while definitely harder at scale does provide a lot more credibility.

Anna: Yes, exactly. This is exactly the point, right? But I think that's also why I'm excited about these efforts to bring these assets and these efforts on chain from the start. So, if I go to various registry and I buy a credit, and I, even if I tokenize it, even if I make it into a more fungible asset with increased liquidity and whatnot.

I still don't know much about it because of the system that is used today to, register and verify and document the assets and with, the risks that you just [01:08:00] outlined. So if it's on Shane from the beginning, then we have a whole different way of identifying this project and tracking the impacts over time.

The vintage could also be a price differentiator. All of a sudden, the social impact that might be generated, oh, this is the best idea. You have project and then you do a, not a universal basic income direct payment for ecosystem service project in the same vicinity. So there's like positive spinoff effect on this local community, and you're able to quantify that as part of the assets that you then turn into a carbon credit and then the buyer of this couple years later can.

Have the information and see, what happened to, is there now a market there, are there people who moved up from bikes to motorbikes, which is a sign of, development in rural communities and do they have cell phones? Can we see, positive social and environmental spinoff effects of it?

Eric: Gotta be the

right motorbikes, , bikes, . Yeah. We've covered a [01:09:00] lot, so thank you. Is there anything that before we break that maybe you didn't get to or you think we should cover?

Anna: The only thing maybe I would add is an ask to your listeners. I think one thing that's really scarce in both the carbon industry, climate industry as well as in refi, is talent and very capable operators.

So for this to work, for us to be able to prove out these businesses and generate enough finance and really scale this industry, we need people with talents and varied talents. You don't need to be a climate expert or a coder or a finance expert, although we do need, we need capital market experience.

So if you know a lot about finance you're extra needed no, but we need all kinds of experiences and backgrounds and, , personalities. So I [01:10:00] would encourage anyone that's interested, that gets inspired by this type of conversation to reach out. Climate collective.org is our website, but also I'm on LinkedIn and would love just to talk to people who are interested in this industry, who wanna deploy their resources, talent, their network to come and help us really make a dent on climate action.

Eric: Anna, this was great. Thanks so much for coming on the show.

Anna: Yeah, it's really fun. Thank you so much for having. It got me so worked up. Now I'm going to Davos and I'm like, you need to fix this.

Eric: That's right. Davos is at a different level, right? It's a different level of scale, so

Anna: yes. [01:11:00]