

Transcript Episode 9, Voluntary Carbon Market with Climate Impact Exchange
Bryan McCann, Commercial Director

Narrator: Green Invest Asia examines the role of finance and strong environmental, social and governance criteria (or ESG) to unlock land use investments that reduce climate impacts of agricultural and forestry commodities that we rely on for everyday life. We bring you the inside story on sustainable land use investments in Southeast Asia—what’s working, what’s not, and the green areas in between. This podcast is born out of a sustainable land use project by the same name funded by the United States Agency for International Development, or USAID, which works with investors to support agricultural and forestry companies in Southeast Asia reduce their carbon emissions through climate-smart operations.

[Intro music, then fade under host’s opening.](#)

Christy: Hi, I'm Christy, Director of USA Green Invest Asia, and I am your host. Today, we are taking a shallow dive into the world of carbon credits, specifically those available in the voluntary carbon market. With unprecedented growth in the past three years or so, in this market, there are a lot of questions about how it works, what it will take to make it stick. And whether it's the golden ticket out of this climate crisis. To help me unpack what is happening now and where the trend seems to be heading for the voluntary carbon market. I'm very pleased to be joined by Bryan McCann, commercial director at Climate Impact X a global exchange for voluntary carbon markets, headquartered in Singapore. Bryan, welcome to our podcast.

Bryan: Hello, Christy. Great to be here.

Christy: Excellent. So to get us started, can you just briefly describe what is Climate Impact X and why was it created?

Bryan Absolutely, so Climate Impact X was launched by the Singapore Government in partnership with four of the biggest companies in Singapore: Standard Chartered Bank, Temasek, which is the Singapore sovereign wealth fund, DBS Bank, which is the biggest bank in Asia, and the Singaporean Exchange, which is the Singapore Stock Exchange.

This is really part of Singapore's broader mission to contribute to a sustainable economy and to helping meet global climate goals. And so we were launched with two core principles:-providing transparency to a market that's complicated and difficult for companies to engage in, and helping make available quality carbon credits to help fund activities that reduce emissions on the ground. And how we realize these two principles is through three platforms: a marketplace, an auction house, and an exchange, which are designed to provide multiple channels for companies to buy credits, and for suppliers and organizations that want to raise finance to fund climate action. This gives them multiple routes to the market, ultimately, helping to bring buyers and sellers together in a way that helps raise finance to combat climate change.

Christy Great, and maybe a bit of a basic question here. But can you just give our listeners a highly condensed “Carbon Markets 101” introduction, to the foundation for what we're talking about here.

Bryan Absolutely. There are three really steps to make a carbon credit. So the first is there is some activity on the ground that is reducing or avoiding emissions. And this activity wouldn't have happened otherwise without the finance through carbon credits. The second step is to verify and certify that this activity actually happened. So this isn't taking somebody's word for it. But there's a fairly robust system for quantifying these emissions reductions and to certify them with independent third parties that come in and verify that these have happened. And then once this work is done, and it can take years to get a project off the ground to complete all these requirements to complete the certifications, [is] to consult and engage with local communities. Only once all of that work is done is a credit issued and it can be sold.

And so once the credit has been issued, companies can transact these individual credits, each of which comes with a specific serial number, and lives on a central registry. And so once these credits are out there is when companies can buy them, they can sell them and ultimately use them through a process called retirement. And then when they retire them to compensate their emissions, one credit is one ton of emissions avoided. And that's used by companies to compensate one ton of their own emissions. And so that's really the supply side of the market is the people that are doing the hard work of reducing emissions ~~that it~~ can use carbon credits to fund their activities.

And then on the demand side, why companies are getting involved, is there's really a number of reasons all of which are voluntary. So what we're talking about today is what's called the Voluntary Carbon Market, This is companies that are taking action on their own to help meet global climate goals.

In this market, and really in the world's fight against climate change, protecting forests is special.-If tropical deforestation were a country, it will be the world's third largest emitter, and 25% of the cost effective climate mitigation that we can do by 2030 by the end of the decade, that can come from tropical forests. And so when we talk about protecting forests, ~~is-~~you'll frequently hear the phrase REDD or REDD+. And so what REDD+ is this is this, that that's really synonymous with protecting tropical forests. And that's a global framework that has evolved through the UN to reduce emissions from deforestation degradation, that's the red bit. Restore forests, that's the plus. So REDD+ is reducing emissions from deforestation and degradation and also restoring forests. And why the voluntary market is so important when it comes to protecting forests is that much of the finance support REDD+ has comes from big donor governments, big multilateral institutions like the World Bank, but that's ultimately going to be limited. There's only so many donor governments that have the budgets that are able to fund this at scale. And, and so what those activities, what those donors, have been able to do is build the systems that are necessary to monitor deforestation to engage with local communities.

And where the voluntary market can come in, is that [it] represents a huge new source of funding that's able to scale these approaches. So just for a bit of context, in 2021, over a billion dollars from purchase of voluntary credits that went towards protecting forests, to forests ~~to gratis, and forest~~ and land use. This is a drop in the bucket compared to what's needed. But it's a billion dollars more than what we would have had in the absence of companies taking voluntary action through carbon markets.

Christy Thanks for that, you know, this class was unavailable when I was in college! So it's always good to have a refresher. So turning back to Climate Impact X, or CIX, it is relatively new to the space and as

you indicate there's a lot of growth where we saw in 2021, the carbon market quadruple in size to almost \$2 billion. And in the world of investment, this kind of growth could be a red flag. Is this growth sustainable? What is behind some of these big projections we see about market size? I saw one estimate of \$50 billion by 2030. Certainly through Green Invest Asia, we have helped a number of carbon developers and investors move millions in investments over the past couple of years for low emission deforestation free forestry and agriculture projects in Southeast Asia. And currently, about half of the technical assistance requests we get are related to carbon market. How are you interpreting this type of demand?

Bryan I think this is a great opportunity for new sources of finance to help support the kinds of activities that organizations like Green Invest Asia are able to do. I think this is a perfect example of where this was funding ~~was~~ coming from USAID, from a government source. And now it's able to come from private markets. How to think about the growth of the market is on both the demand and the supply side. Carbon markets, as they are today, really go back to the late 90s. So the Kyoto Protocol, which predates the Paris Agreement, that was adopted in 1997, that kicked off this first iteration of this market that ran for most of the 2000s and sort of crashed in 2008, along with several other things that crashed around the same time. But the important thing is that it didn't go away. And so since 2008, there's been a lot of work around developing the standards, developing the methodologies and developing the systems to show, to determine what a carbon credit is and to show that this funding is supporting real action on the ground. And so that ~~That's~~ happened quietly in the background over the last 10 years.

And what's happened in the last three or four years, that's really sparked all this interest, is on the demand side. It's companies that have woken up to the opportunity that carbon markets can play for them to accelerate their climate strategies. So after the Paris Agreement in 2015, companies started to set long-term emissions reductions targets, this is the net zero by 2050, and net zero by 2030. And they've realized that it'll take a long time to be able to decarbonize internally. What we're seeing is that they see carbon markets as a chance for them to accelerate their climate action. Why wait for there to be the invention of electric airplanes if you can go above and beyond what you're doing internally to help meet not just your climate goals, but broader sustainability goals. And so what voluntary markets do is it's a channel for low-emissions projects that are able to raise finance and get off the ground by selling carbon credits. And the benefit comes to more than just the community or more than just the climate, rather, but it helps support local communities, biodiversity and human health broadly. And it's gonna take a lot more to grow this market.

So it was, as you said, \$2 billion last year. The finance needed will continue to grow. And so what we're [CIX] able to contribute is really two-fold. One is growing the market in Asia. So most of the companies that are engaging in this space are in Western Europe, in the US. And so we're able to help provide a channel to engage the companies in Asia. And then, two, is around quality and transparency. So moving away from what is today, quite a bit of a black box. And moving that to something that functions like a better market where companies are able to transact with confidence and suppliers are able to come to market and ~~gets~~ be rewarded for the hard work that they're doing.

Christy Right. And I guess to that last point, to what extent does the CIX actually help address concerns about how opaque the carbon market can be? I mean, that's certainly one of the criticisms or concerns, again, about how the voluntary carbon work market works is that it's especially at this point very difficult to kind of know what's a real credit, and what's a fake credit.

Bryan Yeah, no, you're absolutely right. And what we're what we're really trying to do is focus on ~~time~~, two elements of this transparency, quality and the great question on the demand side: How do I know what I'm buying is good? And ~~how~~ the supply side is 'How do I know that I'm getting a fair price for my credit?' On the quality side, [what we] are really aiming to do is help turn what is today quite a complicated market where companies need to look at individual projects need to conduct their own due diligence ~~to~~ on each individual project. And that's time intensive, and that's expensive. And ultimately, the number of companies that are in a position to have a team of five to 10 internally, not everybody is able to do that.

And so what we're looking to do is to create a place where almost like a Whole Foods for carbon credits, we don't necessarily need to read the label on everything. But you know that everything in the store is fit for purpose, and can help you meet your sustainability goals. So as an organization, we run our own quality checks to filter out, filter up projects. And we've we've partnered with satellite monitoring companies that are able to use their technology on our platform to provide additional analysis, this doesn't yet fully replace the diligence that companies will need to do themselves, but at least it helps simplify and gets a place to start.

And on the supply side is really one of the things that's holding us back is there's no real market price for carbon credits today. And so what we're looking to do is on the exchange is to create a liquid exchange where big market makers and big banks are able to come to have liquid transactions of at least a basket of credits that is somewhat standardized. And that at least moves away from what is today, every product is different to at least some elements of this is good enough. Once you have this basket of credits ~~that~~ that in some sense represents the market as a whole, you can then say, well, the CIX basket last week or yesterday traded at \$12. What this really gets to is, there's a principle of fairness ~~of~~ if there's a clear benchmark price in the market, that I can then go in and turn to the communities that depend on me, and that are supported through these efforts. And I can say, well, this is what the market price is, I think that it's fair it's when people are able to be confident and to be able to engage in this market, that's how we start to get this off the ground. And that's, that's how this becomes relevant to everybody. Not just the handful of quite sophisticated organizations that are in the market today.

Christy It is expensive, right? it's expensive to get these projects developed, it's expensive to get them off the ground. Certainly with Green Invest Asia-~~So~~ a lot of our support has been in the pre-project development phase trying to do some of the work that was required for an investment committee to give the green light to put some more funds into project development. Demand definitely ~~is~~ seems to be growing, but supply is lagging. What makes for a good carbon project? And, how does that tie into this lag [that] we're seeing in the supply side right now?

Bryan The first elements of lag in supply is just that it takes time for a market to grow. I mean, if you think about moving ~~to~~ to North Carolina, and buy a house, it takes a couple of years for them to build enough houses for everybody that knows that wants to move to North Carolina. There's been such interest, that's now we're starting to see these new projects that started two years ago, now they're starting to come to market where they've been able to identify a patch of forest, they've been able to start the certification process, engage with local stakeholders and implement programs that can help reduce deforestation. And so to some extent, the supply shortage ~~is~~, is progress will continue to get off the ground as ~~as~~ time goes by.

But I think really, when we think about what makes a good project is those two different pieces to it, what we call environmental integrity. So is this project actually reducing emissions in a meaningful way? Is this project providing direct support to communities in nature? Our view is that if you can unlock finance ~~the that~~ and bring more funds into this space, that's what makes this all possible.

One of the pieces that we're thinking very hard about is how do you scale up production of tropical forest? And so moving away from projects that are today 10,000 hectares, 50,000 hectares to ones that cover entire countries and entire states. And so instead of doing 100,000 hectares, that is one forest and one part of Costa Rica, why not do the whole country? And what this is able to do is one is, the more forest that you protect, the faster you're able to reduce emissions, but then, two, by working hand-in-hand with policymakers directly addressing the incentives and incentive structures and enforcement structures that cause deforestation, that's when you're able to both create more credits because of the scale, but also better credits because you're able to transform entire economies. And it's this kind of policy-based efforts. This is really what we think when we talk about scale. It's really working hand in hand, with policymakers, with civil society, with local communities, but all really accelerated by the finance, ~~it's~~ available through carbon markets, it will take all of those organizations together to be able to meaningfully reduce global emissions.

Christy: Yeah, and I think the idea of scale is quite important. But that at the same time, there's a lot of interest in growing interest in agricultural carbon credits. We have been working with a company Kennemer [Foods International] in the Philippines, and they are trying to develop carbon credits with their cacao farms that they manage and that they support. But that's pretty small scale, right? Many of the credits are coming from things more like restoration protection, peatland landscapes. Do you see more agricultural carbon credits coming online? What would it take? So much of the world's commodities, you know, rubber coffee, cacao, ~~comes out of~~ palm oil comes from this this region. How can you see these credits coming into market to ensure viability and benefit and at scale that's needed?

Bryan: Yeah, that's a fantastic question. So I think there's really two ways that agricultural commodities and changes to land use practices can help generate credits and lower emissions. So the first is really just the intersection between land use and tropical deforestation. Most tropical deforestation driven by commercial agriculture, a lot of that is illegal. And a lot of that can be combated by the additional resources and finance available through voluntary markets to help support local governments and communities to protect their lands. But I think the important thing is that enforcement ~~is~~ and just putting up a fence that ~~that~~ is not the right answer, but that's a part of it. And certainly, helping support local communities in combating illegal deforestation will always play a crucial role. But really, when we talk about tropical forest protection, is it's thinking about the systemic change and local economies that's needed for them to be more sustainable.

So changing agricultural practices from shifting cultivation, where you're clearing a patch of land, you grow it, subsistence egg or cash crops, you go out for three years and then move somewhere else where it's there's a whole host of agricultural training programs that you can provide to help farmers be more productive, or livelihoods programs where people can have, they can supplement their agricultural incomes with somebody else in the family ~~um~~ making money from a different trade. But all of these together, really contributing to systemic change away from deforestation-driven agriculture, to sustainable agriculture. And then beyond tropical deforestation is there are a number of different and

really, really exciting pieces of innovation that are happening to lower emissions from agricultural practices themselves.

So the few that come to mind are one is what's called alternating wetting and drying. So it's a way of changing rice harvesting or instead of having the field flooded for the entire season, if you instead change the flooding practice of flooding the fields, you can significantly reduce methane emissions and fund those kinds of activities through carbon credits.

The second is around agroforestry. So working with smallholder farmers to plant trees, which again, you'd want to do anyway for reasons of soil erosion, but also planting more trees is good because you can help sequester carbon.

And the third is thinking about biochar. So transforming different kinds of agricultural waste. For example, rice husks, the leftovers from sugar harvesting, you can transform that into a carbon-rich fertilizer called biochar, which you can distribute to farmers, which again, is a good thing in and of itself, because it's fertilizer, but it also helps trap carbon in the soil. I think the last point that I'd make is you're exactly right that having scaling these and engaging with lots of different smallholder farmers, that's really what's key. And so some of the really exciting innovations that we're seeing is that organizations whose supply chains and who are in a position to work with all of these individual farmers, being able to work with them, because they already know everybody, and they already are able to engage with everybody right, is working with them to help scale these kinds of efforts.

Christy Yeah, and which is interesting, because, you know, historically, corporates have not typically been considered as conservationists or defenders of the planet, you know, and investors have placed little to no economic value on public goods, like forests or parks. It's been more than domain of governments and philanthropists, climate activists, but the entire Voluntary Carbon Market, if well executed, at this stage, you know, would place monetary value on natural capital, nature-based solutions, that is potentially equal or greater than the value of extracting that resource, ideally, which I think is a good thing I think most of us agree with would be a good thing.

But there are of course, critics and I can't not talk in this episode without raising a recent hit ~~on~~ late night comedy in the US. In August, John Oliver took on the carbon market, asking questions about offsets, traceability, verification, pricing, basically, you know, throwing some shade on the carbon market. If you could talk to John Oliver, how would you respond to the concerns he's raised and and others to be fair?

Bryan I think in any job, there's an element of 'Does your mom know what you do for a living?' I think it really reflects how much interest and how important the space has gone from something that's quite niche, two or three years ago, to something that's got John Oliver going on [about it] for 20 minutes on Sunday night.

And I think the simplest answer is that we have eight years to end tropical deforestation, and eight years to start to live up to the commitments that were made in Paris, and that voluntary carbon markets represent a significant tool to help make this happen. I mean, it's, this isn't a market for the sake of having a market, it's a market as an enabler to help bring finance and fund these kinds of climate activities. And this finance isn't coming from anywhere else. And it's an all of our interests to try to make this work. And in the world that we live in, we don't necessarily have the luxury of perfect being

the enemy of good. And the last point is that we're getting better at this is, is that there's any number of innovations that are helping this market work better.

The first is widespread satellite monitoring. So it used to be quite a manual process to go into the forest and make sure the trees are still there. Now, this can happen in real time. There's satellite, there's widespread networks of satellites, there's machine learning that's able to track this stuff in real time. And the second is around the expectations on companies that are in the market. I think 15 years ago, there was this idea of offsets, where I can just buy credits instead of doing the hard work of decarbonizing internally. But now the expectation is flipped, where companies need to have a credible plan to reduce their own emissions, need to set a long-term target, and then buy credits. And then the third is ~~just this~~, this expectation and the increasing sophistication of companies want to know where the money's going, and companies want to and there's an expectation that the finance doesn't just go to one or two or three big companies, but there's revenue sharing mechanisms in place, and that the funds that is being raised through this market is that it's able to go and impact and benefit the communities on the ground that are doing the hard work of actually reducing emissions.

Christy That's one area where I think many people have concerns as to what extent will the financial benefits of the carbon market actually make it to the communities. Are there models or ways that you are aware of that are being utilized and carbon projects that we're seeing today that highlight these community benefits sharing models?

Bryan: So I think there's, one, is there's a set of ~~tech~~, technological solutions that can help this work better, where instead of a credit being issued, and then just sort of disappearing, to be bought and sold is one of the things that we're working really hard on is if I sell you the credit, you sell it to somebody else, they sell it to somebody else, is there a way to track that? And so some portion of that resale money, is there a way to use technology? Maybe this is in blockchain, maybe this is through the ecosystem that we're building? Is there a way to track that so the revenue from each of the new sales of ~~the~~ credit that that can go back to the to the community.

And the second is really just thinking about best practice and expertise. People talk about forest worlds where it's there's a set of forestry experts that have been thinking about this stuff, and can talk about different kinds of carbon sequestration rates. But there's also climate worlds too, these are the climate policy experts, the people that are in the COPs understand the all the nuances of the Kyoto Protocol versus the Paris Agreement.

And then there's the development worlds, which is where I come from, which is thinking about how can you improve household incomes that can work with local farmers. There's tons of expertise in each of these three different places. And they all intersect in voluntary markets. And so if you think about ~~a~~ an agroforestry program funded by carbon credits that works with smallholder farmers, is how can you start to bring together these different pieces of expertise that have been developed strictly in development and aid over the last 40 or 50 years to make these carbon credits as carbon programs start to work better?

And the last is just that companies have their expectations are getting high, and the scrutiny is getting higher. So it used to be around you would just buy carbon credit. Whereas now, you'll buy a carbon credit that comes with a climate and co- benefit certification. So it's a certification that exists that it supports that it's not just a carbon credit for carbon, but it's actually helping support the UN SDGs. And

it's that demand-side scrutiny. that will help drive these markets to be better and provide more and better support for local communities.

Christy: What do you see as the role of the public sector and supporting and scaling voluntary carbon markets?

Bryan: There's four buckets of things that governments could look at. The first is around ~~direct read~~ direct readiness payments. So a lot of the finance has been provided so far is around setting up systems to monitor forests, but a lot of that can also go into helping to give and support developing countries, and having the infrastructure to engage in this market and generate credits, you know, negotiating a big contract that's complicated, implementing satellite monitoring, that's expensive. And there's expertise that exists in different institutions. And so really, the goal is helping to support developing countries in bringing some of that expertise in house to help them help them start to scale the market and, and make the market relevant for their countries.

The second is setting up international frameworks. So there's two initiatives that came out of COP [26] one is determining a set of principles for what is a high quality credit, and one is determining a set of principles for the claims that companies can make when they buy credits. So this is directly, you know, really, really addressing some of the questions that some of the things that we've talked about today of what is a good credit, how should companies be interacting? There's a there's a donor-funded initiative that is helping to lay out principles for this.

And the third is just diplomatic pressure. And in continuing to raise ambition. The Paris Agreement was six years ago, company and developed countries that have set their NDC targets. And if they keep living up to that, they're then able to hold other countries accountable to up to their, to their commitments also.

And the last is funding organizations like Climate Impact X that are helpful to help enable this ecosystem. So we're a marketplace and an exchange. But there's lots of different areas where governments can help address either this is helping to fund smaller companies or fund other initiatives to help address points of friction in this market, just like they're doing through Climate Impact X.

Christy: You know, there's so much to talk about, um, given the of the market, and I think we've covered a lot of ground. You know, my last and final kind of question for you know, if someone's just turning in tuning in now to this conversation, what would you say is the most important takeaway from our conversation today, Bryan? Or is there anything you'd like to add?

Bryan: Just get involved now. Watch this space. I think if you're a company, this is a way for you to help accelerate your sustainability strategy. And there's a lot of very good business reasons why you would want to be involved. And if you're an agriculture and development [organization], think about how you can reduce your emissions and fund those kinds of good work through carbon credits. It's going to take all of us together to help meet global climate goals. And voluntary markets are not a silver bullet, but at the very least it can be a huge enabler for all of the climate action that's needed to help keep ~~the-keep~~ the world to a 1.5 degree world. And for us, you know, The Climate Impact X, we're here. We're always happy to talk. So reach out to ~~see-if~~ explore how we can best work together.

Christy: Thanks, Bryan, agree, get involved. Thank you, Bryan, for your thoughtful inputs today. For those of you listening, we have been talking to Climate Impact X's Commercial Director, Bryan McCann,

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about his exchange's efforts to scale the voluntary carbon market. To our listeners, we will continue to bring you more investment voices, insights, and updates from Southeast Asia on climate-smart agriculture and forestry in coming episodes. Thank you all for listening.