

Bloomberg Green at COP28

Special Session: The Future of Carbon Markets

From here, possibilities are everywhere. From taking first steps here to beginning your own wealth journey here. From backing global trade ambitions here to delivering on that promise here. That's why we're here in the world's most dynamic markets. A bank that connects potential to possibilities. Where will you go from here?

Patricia Torres: Good afternoon, and thank you for joining us for this lunch briefing on The Future of Carbon Markets at Bloomberg Green at COP28. I'm Patricia Torres, and I'm the Bloomberg's Global Head of Sustainable Finance Solutions. I'm thrilled to be here with you today and looking forward to discussions to come. Before we begin, I would like to take a moment to acknowledge our presenting sponsor, Standard Chartered, for making this session possible. Now let's dive in.

Please join me in welcoming Liane Randolph, Chair of the California Air Resources Boards, for a discussion on the state of emissions trading systems. Let me start by actually sharing a couple of data points on the compliance markets. Liane has been with the program since 2012 and the chair since January 2021. It's a pleasure having you with us. There are more than 30 compliance markets around the world. The total value of the compliance carbon market is expected to top \$800 billion this year.

California's Carbon and Cap-and-Trade Program is one of the largest multi-sectoral emissions trading systems in the world with an estimated market share between 8% and 10%. This program is central to California's ambitious goals to reduce anthropogenic greenhouse gas emissions 85% below 90% levels by 2045. It covers 80% of the state's emissions. The first auction happened in 2012, maybe you were there at that first auction.

California's Cap-and-Trade Program is linked with Quebec, Canada, and joint auctions happens every quarter, and it has generated more than \$24 billion total revenue, revenue that is being used and leveraged to implement programs that further reduce greenhouse gas emissions and also target environmentally disadvantaged and low-income communities. For those of you in the audience that are probably not very aware about what the market is about, the compliance trading market, can you please start by explaining that?

Liane Randolph: Right. Thank you so much for having me. As you mentioned, the Cap-and-Trade system covers 80% of emissions in the industrial electricity sector in California. Covered entities comply by purchasing allowances or by using offsets. The amount of offsets that can be used for compliance is actually capped by statute. We at the resources board can't modify those percentages, but we do have regulatory authority around setting the cap, and the cap declines over time in order to meet the ambition set forth in the program, and we also have the ability to determine the allowances that are in the system.

We have a very complicated system around distribution of free allowances for trade-exposed industries and for utilities and for the state that we use the funds that are

generated from the auction of those allowances to fund our California Climate Investments program. I'm sure we'll have an opportunity to talk a little bit more about those investments.

Patricia Torres: I think my first question has to be, is it working? Are carbon emissions reducing in California, and do you think it's due to the program?

Liane Randolph: The first answer is yes, carbon emissions are going down in California as GDP has gone up since the climate legislation was originally passed in 2008 and then the Cap-and-Trade program began in 2012. I think it's important to recognize that the Cap-and-Trade program is part of a portfolio of strategies that California is using to reduce emissions, and that portfolio includes direct regulation. An example is the electricity sector. Senate Bill 100 requires the electricity sector to move to 100% zero carbon retail sales of electricity by 2045. That has a very clear mandate, and the legislature recently adopted some interim targets on that way to 2045.

That's an example where not only are energy companies covered entities, and they also need to be thinking about their Cap-and-Trade efforts, but they also need to be figuring out how they are going to reduce the carbon that they are emitting as part of their portfolio of resources. They need to be acquiring solar, they need to be acquiring wind, they need to be acquiring battery storage. In addition, we have very rigorous standards to get the entire vehicle fleet to zero emission, everything from light duty all the way up to heavy duty vehicles.

Our light duty target for new vehicle sales is 2035, heavy duty target is 2036. These all work together, and the Cap-and-Trade program really helps that clean-up as we say. The program is a lever that we can use to drive down emissions and increase ambitions by lowering our cap, and thus stimulating more investment in reducing carbon.

Patricia Torres: Versus the 1990 levels, where are we today?

Liane Randolph: I don't know. Actually, I don't know that percentage number. That's a good question. I have the chart in my head. It was interesting because if you watch the pandemic, there was a huge dip, and then you saw it come back up in 2021, but our anticipation is that will continue to go down.

Patricia Torres: Maybe I can pivot it for 2030. What's your target? 2030?

Liane Randolph: We recently adopted an update to the 2022 scoping plan, which is our overall plan to reach that 2030 target. Currently, the scoping plan lays out a suite of measures that would get us to 40% below 1990 levels by 2030. However, if we want to get to carbon neutrality by 2045, getting to 40% below 2030 levels, which is our statutory target that is in law, but in order to comply with the other part of the law, which is that we need to reach carbon neutrality by 2045, if you look at the trajectory, if we are at 40% below 1990 levels in 2030, we are not on track to get to carbon neutrality by 2045, which means that we need to think about being more ambitious between now and 2030.

One of the ways we are doing that is by undergoing a rule making, examining the current Cap-and-Trade program, and looking at ways to make it more stringent. We have released modeling that takes a look at what it would mean to do the 40% target, which is our business as usual, but also what it would look like to do a 48% below 1990 levels target, and what would be necessary to do a 55% target. We did some analysis and we've held public discussions in a workshop format talking about all those different options.

We are just starting this process. I can't tell you how it's going to end. It's really about having that conversation about the important issues that we need to consider in looking at each of those potential targets and adjusting the cap that would meet those targets, which would then have an effect on the allowances that are in the market.

Patricia Torres: We always talk about the carrot on the stick. The carrots about the permits, and making sure that if you're emitting less than the permits, you can actually sell them and trade them. The stick is, if you're not doing your job, at some point, you're going to pay the price, and the price will be higher and higher and higher. One of the questions that people care about today is, what is the carbon price and how many companies have an internal carbon price today in their balance sheets? What is the carbon price in California?

Liane Randolph: Our floor price is \$22. Our last auction allowances went for \$35.

Patricia Torres: How has the price changed?

Liane Randolph: It's, for the most part, steadily gone up over time. There have been a few dips where there has been dramatic interruptions in economic activity like the pandemic. There was a dip during the pandemic, but it has come roaring back since then, and it has increased quite a bit since then.

Patricia Torres: Yes. Our Bloomberg New Energy Finance, they write research on the carbon markets, and they share that 58 million allowances were sold, which means \$2.5 billion revenue came into the pockets of the California state. Do you believe that the price is aligned with Paris Agreement? So everybody knows that 1.5 is going to be difficult if we don't act soon. Is the current price aligned with 1.5 in California? I'm just going to say that the Bloomberg New Energy Finance believes that-- there was an [unintelligible 00:10:52] like Stern and Stiglet mentioned that for the prices to be aligned with Paris Agreement by 2030, the price has to be between \$50 and \$100.

Liane Randolph: Because Cap-and-Trade is part of that portfolio of strategies, there are costs of carbon that show up in other programs. For instance, our low carbon fuel standard, which applies to transportation fuels. There is a cost to the transportation fuel companies for complying with that. They need to build that into their carbon budget, as it were. They need to be thinking about what their Cap-and-Trade compliance is and what their low carbon fuel standard compliance is. For us, we don't necessarily think of it as just the Cap-and-Trade price, that's a big piece of it, but we also need to be thinking about other aspects of the portfolio.

Patricia Torres: Just for reference for the audience, for 2030, BNEF estimates the price in Europe to go high, as much as €150 per metric tonne by 2030 from €85 tonnes as of today, but I'd actually like to focus now on impact because one of the things that it's really peculiar about the program is that you get this 2.5 billion revenue, and then you're actually using that money for greater good, not only for the planet, but also for society.

We may have around three minutes left, so I wanted to squeeze two questions, if I may. The first question is, which projects are you implementing and using the money for? Then the second question is, At COP28, this COP28 is about the COP to action, so I'd love to understand is, which actions are you taking forward to 2024, in the last two and a half minutes?

Liane Randolph: [chuckles] Okay. I guess I can use one example that will answer both of those questions. We use the funds for a wide range of projects, including providing rebates to utility customers to lower their energy costs. One of the areas where we invest quite a bit of the funds in is incentives for zero emission vehicles and infrastructure. To me, that's a wonderful strategy because it aligns with moving away from fossil fuels.

It aligns with our strategies around reducing demand for fossil fuels, so a lot of what we use those funds for are ways to reduce demand for fossil fuels and ways to make the transition more affordable, particularly for low income residents or disadvantaged communities, because we know this transition is going to cost a lot of money. That is why it is such so important to see the investments in reducing carbon, but we see an opportunity in driving some of those investments towards low income communities to help them make the transition.

Patricia Torres: I still have time to ask another question. In the last minute, we have other countries have expressed that they will also like to also issue their own compliance program in their own countries. We're talking about India, Brazil, and others. You were there from the start. Back in 2012, you were there launching the first auction. Which advice could you give them for anyone that is starting and pushing that compliance program?

Liane Randolph: Yes. Well, the Air Resources Board, when they began the program, really started by looking at existing market programs in the US and in other countries, and really tried to understand how those programs were structured, what were the covered entities, how were the auctions structured, and did a lot of analysis and investigation before constructing the program. Now, because there are so many other trading systems out there, there's really an opportunity to dig in deep and understand some of the nuances. Some programs cover only limited portions of their industrial sector. Others are more wide-ranging.

Taking a moment to take a good look at the landscape and understand what the pros and cons are of how to structure each program, I think is a really important first step. I know our staff spends a lot of time with other jurisdictions, and we've built partnerships literally around the world to talk about emissions trading systems. We're always happy to help jurisdictions that are interested in starting up.

Patricia Torres: Fantastic. I think finishing these with the ESG number 17, which is partnerships and collaboration, I think is great. Thank you so much for joining me, Liane. I'd like to welcome Sunil Kaushal, CEO of Standard Chartered Africa and Middle East, and Edmond Christou, who is our Bloomberg Senior Analyst at Bloomberg Intelligence for the next conversation. Thank you.

[applause]

Edmond Christou: Good afternoon. I'm very honored to be with Mr. Sunil today.

Sunil Kaushal: Pleasure.

Edmond Christou: It's a great discussion today on the COP28 to talk about mobilization of capital from developed countries into emerging markets. Given my background working at Bloomberg Intelligence, the research arm of Bloomberg, we've written a few research paper focusing on the great opportunity that GCC region offering in terms of construction spending of \$1.7 trillion over the next five years and how we can mobilize green financing and to assess a great opportunity in the region. However, I have identified with a lot of difficulties and obstacles for this money to be mobilized. I would like to hear your view on what the difficulty is and what is the right way to tackle it.

Sunil Kaushal: I think-- first of all, thank you for inviting me to this conversation. GCC in terms of attracting capital, at least in our view, is less of an issue. If we are talking about the big picture, we should be really focusing on some of the developing markets that are capital-starved, and really the perception of risk in those markets is very, very high. It's important to understand the context of these markets because as Standard Chartered Bank, we operate in some of the most dynamic developing markets. We are the emerging markets bank and have a reasonable perspective in terms of what's happening there.

You have the backdrop of these governments have to really balance between providing for food security, providing for education, health, basic services, versus investing in infrastructure which is green and sustainable. It's a tough balancing act. Over the last couple of years, their access to financing has been restricted because of high-interest rates and public markets being shut. The risk perception actually becoming even greater. Markets like Africa and parts of South Asia where you had some countries defaulting and some on the verge of default.

That context is very important when you have, and then we're just coming out of or came out of COVID, you've got stretched balance sheets of country balance sheets, sovereign ratings being under pressure. Then you have the requirement to really promote and support and invest in sustainable projects in carbon reduction initiatives. That's where they're required to coming to the point in a long-winded way. You require capital coming in from the developed world to the developing world. In our own assessment, if this does not happen, climate change does not respect any boundaries or geographies.

You cannot have one country which is your neighbor achieving net zero or 1.5 degrees target to the neighbor, on the other hand, which is capital deficient and which cannot invest, not achieving it. Globally, we're not going to aggregate into 1.5.

That's where the capital flows become extremely important. Our experience has been that you have to be very-- this is what we do for a living. We are the largest-- and I'm not saying we're the only bank, but we are one of the largest banks in terms of being a bridge for capital from the north, which is the developed world coming into the south, which is the developing world.

With the background that I've set, the risk perception, in fact, is probably at its greatest now. Then with interest rates being high, you're talking about the access to capital not only being difficult but also being very, very expensive. This all compounds the problems that these countries face, and you have to appreciate that many of these investments that have to be made are front-loaded and can be costly in the short term or costlier in the short term, particularly if you're replacing technology, if you're replacing certain infrastructure, replacing certain equipment or investing in upgrades.

It becomes challenging, and that's where it's exciting for us in terms of creating a framework where you can really bring risk-shy capital into markets that require it the most because unless the both developing and the developed world achieve what we are trying to achieve, the cost would be lost. We've done a lot, but I'll wait to give you examples, working examples, et cetera. I'm sure you have other questions, but I thought I'll set the context in terms of what the challenges are in terms of attracting capital in many of the markets that we operate, particularly in the African continent, and as I said, parts of Asia and South Asia.

Edmond Christou: Thank you. This dialect, or the effective framework between developed and emerging markets, what the role the government could play in it. Especially if we look at the region here, for example, the focus is diversifying from the oil to non-oil business activity to be less reliant on oil in the future. On the other hand, they have also more mandate to integrate the ESG, the sustainable finance framework. There are two parallel agenda happening at the same time and if we look, for example, on the banking sector in the GCC, they issue \$118 billion since 2019 of debt, only 6% is green. This used to be 5% a year ago, so we moved from 5% to 6%, but still a long way to mobilize more capital.

Sunil Kaushal: I'll pick it up in different parts. Again, if you look at this part of the world, they are far ahead of many other markets that are doing a catch-up. Their access to capital has been, I think, a lot easier, but I take your point in terms of the transition, and from our point of view, five years ago, it was more about advocacy, thought leadership, creating awareness that if you don't have a framework, a path to net zero, your cost of capital at least, maybe not access to capital, your cost of capital could be higher.

Or putting it the other way around, you can tap lower-cost capital or lower-cost source of capital if you have a credible transition plan. I think the buy-in is there. When I look at where we are sitting, when I look at Saudi, they're at it because they have no choice because they're a large fossil fuel-based economies and they have to transition to really create an offset through investment in renewables, through investment in carbon capture, new technologies, et cetera.

The capital is coming in here, and our belief is more and more of the investment that will come in will be green. Will be towards green. When I look at our own capital

raising for the governments here and for projects here, it has been with a green tag. The percentage may be 6%, 7% as you stated, but I have no doubt it'll double in the coming years that come, double next year, and triple in the coming years and go up. It'll subsume the normal legacy financing. The issue I think that we have to, if I may-- I don't know whether we have time.

Edmond Christou: We have two minutes.

Sunil Kaushal: We've two minutes. I think the issue that we have to address is how do you really bring capital into markets that require it the most and what innovative structures can you adopt. That is the core of the issue. I don't think it's necessarily relevant for this part of the world which has created the right ecosystem. It has created the right infrastructure, the right policies, and, of course, there's stability in terms of regulations and the governments to attract capital.

Where we sit today, Dubai, is a case study of how you attract FDI, but it is where it is required most in some of the more challenging markets, and our experience has been-- what's been very successful in some of the most challenging markets has been blended finance, where you bring in public money with private money, but structure it in a way that it becomes bankable. There's risk mitigation because developed market capital coming to developing market is very risk-averse.

You need to really risk mitigate to bring that capital in, structure it, parcel it, and then distribute so that you create the capacity to do more on an ongoing basis. That is extremely important. In the not so emerging markets, but still emerging, I'll give an example of Indonesia, where what's been very successful for us is, again, a resource-intensive and carbon-intensive economy, migrating them to a lower carbon, less carbon-intensive economy.

We have used what is called the Just Energy Transfer Partnership. \$20 billion being raised to transition them from fossil fuel-based energy sources to renewable sources. You've got to create incentives. Otherwise, they're quite happy generating energy from fossil fuel-based. \$20 billion, of which 10 billion has been committed by international partners, but 10 billion are private sector coming in, raising money, and that has a multiplier effect.

That model from Indonesia, we move to Vietnam, and that has to be adopted in other countries because that is scalable. You can create hyperscale. South Africa is the other case in point in our footprint. That is scalable, and then it's got the government backing as well. That, I think, is the model we got to look at, gender finance and just energy transfer models that we've created, and there's others as well.

Edmond Christou: I just want to flag European asset under management. We are talking about asset under management of over €33 trillion of asset under management was a great mandate for diversification. Emerging market is a preference, the third highest preference among emerging market funds. Also green ESG metrics has to be integrated into their workflow, which go back to the opportunity that the dialect has to start it because they have also massive need for money to be deployed into emerging market. Given the time restriction we have, I'm grateful to you and thanks very much, and I hope you enjoyed that conversation.

Sunil Kaushal: Thank you.

[applause]

Patricia Torres: Thank you so much for being here with us today. We just heard about money has to go to the global south. How do we do that? I always start by asking you the key question, right? The elephant in the room is Shell, one of the biggest proponents for carbon offsetting, they actually said they will be leaving the market. Shell joined Gucci, Lyon, Nestlé, and other firms moving away from offsets, amid repeated indications that huge numbers of carbon credits do nothing to mitigate global heating.

Guardian even wrote a story saying that a lot of those carbon offsets were worthless. However, there was also another research that actually has shown that businesses that engage with the voluntary carbon markets are carbonizing faster and are much more ambitious than those that do not. I have a specialist here, Diego. Diego, you have evaluated a lot of nature-based projects. What have you found? Is it true? Are they worthless?

Diego Saez-Gil: Thank you for having me. Yes. At Pachama, we are a technology company using satellite data and AI to develop models that allow you to verify and monitor projects that intervene the land, carbon projects that are protecting and restoring forests. We use our data to analyze hundreds of projects in the voluntary carbon market. Indeed we have found some projects that have fallen short of their promises. What we found mostly is projects started more than a decade ago didn't count with the tools needed to establish good baselines and to ensure that their carbon accounting, which was future-oriented and based on counterfactuals, could reflect reality.

We also found a large number of amazing projects that have effectively stopped deforestation in the most dangerous hotspots of the Amazon Rainforest. Projects that have reforested giant pieces of land around the world. We think that while the stories have often focused on the negative side, there's a lot of very positive stories. What we found as we also work with companies that are investing in these projects is exactly what you said that the companies that most invest in compensating their emissions with voluntary carbon credits are actually investing much more on decarbonization.

What we're seeing is that the numbers of companies that are walking away is actually a very small number compared to the large number of companies that are staying with their commitment to decarbonize and compensate the responsibility for not only their current emissions but their historical emissions. Companies like Microsoft have committed to reach carbon neutrality for the entire history of the company.

Patricia Torres: We actually have great stories. It's not just bad stories about people living--

Diego Saez-Gil: Great stories to tell. Definitely the market needed to evolve and we're seeing a lot of that evolution which we are going to be talking a lot about.

Patricia Torres: Annette, one of the criticisms of the carbon offsetting is that the companies they are choosing to use carbon offsets are not actually doing their homework. They're not looking at their scope 1 and scope 2 and really trying to push that number down. They're just saying, "Let me just go there, buy some carbon offsets and my job is done." SPTI criticized carbon offsets in the beginning. I heard there were a lot of announcements yesterday. Could you touch it a little bit about how is the market feeling about carbon offsets now?

Annette Nazareth: Well, thank you so much and thanks for the opportunity to be here, and I'm happy to be here with Diego who I very much admire the companies that are really going to be part of this ecosystem in providing greater certainty on real emissions and reductions, removals and measuring those efforts, so thanks for that question. Look, I think the narrative around this very much needs to change. I think that the reality is you have a lot of corporates that are very committed to reducing or removing their emissions and they have targets to do so.

As Diego said, evidence is now showing that those companies that are purchasing carbon credits are also the most on target and the most aggressive in reducing and meeting their own decarbonization targets which is very important. We firmly believe, at the Integrity Council, that the voluntary carbon market can play an incredibly important role in helping us get to our goals in the reduction of greenhouse gas emissions, but first and foremost, we all have to redo what we can in our own value chains to reduce our emissions.

We very much support that. I think what you heard yesterday is we had some wonderful announcements yesterday, but you heard that those of us involved in this standard setting side whether it's Integrity Council or a Greenhouse Gas protocol or BCMI or all these acronyms, or the Integrity Council that we are firmly committed to align on our work and that we all believe that the voluntary carbon markets, the high integrity voluntary carbon market can really make a difference and has to be part of our plans to reduce emissions.

Patricia Torres: Annette, for those in the audience that don't know the size of the market, so we talked about the size of the compliance market before, can you give us an indication of what's the size today and where it's probably going to be by 2030?

Annette Nazareth: Well, the size is very small and as you know today with all the overhang and questions and the very negative narrative around this, the market's quite small. Maybe like billion, 2 billion. I think there's really great demand and our hope is that we could really scale this market up if it has high integrity to 50 to 100 billion. We want to really expand.

Patricia Torres: Let me just say that again because it's a big number, 50 to 100 billion. This is the size of the market by 2030.

Annette Nazareth: We're really hoping, absolutely, but only if we achieve our goal which we're very committed to do, which is to have high integrity carbon credits. We really are fully on board and committed to implementing our core carbon principles and our assessment framework and getting the supply side right, and I think that the demand will come when corporates have a much better experience both in having

confidence that the credits that they're buying are high integrity, and when they don't have to do what they do today, which is have bilateral transactions where they have to do a lot of due diligence and even then, they may read about themselves in the press.

We can't scale up a market to the size that we need to meaningfully contribute to our net zero goals, unless we create a market structure that has all the building blocks of any other high integrity, successful, liquid, transparent capital market. That's what we're trying to do with carbon credits. You probably know I came from a regulatory background. I was a Commissioner of the US Securities Exchange Commission, and for seven years, I ran the Securities Exchange Commission Division of Trading and Markets, which oversaw all of the US securities markets, and we did all of the regulatory work for all the investment banks, broker dealers, clearing houses, and exchanges.

What we've really tried to do is to take those building blocks, which are well understood on the regulatory side, and translate them and transform them into the voluntary carbon market. I think if we do that and we're successful at it, and I'm confident we can be, it's going to make a meaningful difference.

Patricia Torres: I'm just going to ask a question, which is labeling. In the European market for ESG funds, even though the intention was not there from the regulation, they actually should have issued an SFDR Article 6, 8, and 9, and the SFDR Article 9 is the dark green funds. Actually, that really propelled the market because the ultimate investor, they knew that Article 9 funds were the pure green. In the VCM, are we going to see a label to say, a stamp, "Look at this project. This is a high integrity project?"

Annette Nazareth: Yes.

Patricia Torres: When?

Annette Nazareth: Help is on the way. It's going to be called the CCP label, the Core Carbon Principle label. The Core Carbon Principles are our 10 fundamental principles for how you determine what a high integrity carbon credit is, and how it's validly measured and that it's additional and permanent. We have 10 principles, and those principles apply both to carbon crediting programs that issue credits, as well as to the carbon, what we call carbon categories, which are like the methodologies as well. We've already started our assessments.

I'm delighted to say that as of yesterday, we were able to report that carbon crediting programs representing 98% of credits currently in the market have applied to us for the CCP label. They've all applied to undergo a rigorous assessment to ensure that their programs satisfy our criteria. Then we have also begun our assessments of the carbon methodologies, some of which will be done internally by our staff and a number of them which are obviously more sophisticated and require more analysis, we are putting together multi-stakeholder working groups, bringing together experts from throughout the market to assist us in doing those assessments.

Our hope is that by sometime in the first quarter of next year, we will have carbon crediting programs that have the CCP label who will be in a position to issue credits

of categories that are CCP labeled. Hopefully, we'll see the first credits being issued using this high quality label in the first quarter or towards the end.

Patricia Torres: That's music to our ears, honestly, because I feel that this will bring the trust that is required, which is so needed. Diego, just coming back to you. Your company's mission is to help solve climate change by restoring nature. You have a lot of projects in the Amazonia. Can you tell us more about it? How is this change in the market going to help you and the confidence to actually move money from the north to the south?

Diego Saez-Gil: Absolutely. Nature is a critical solution to climate change. Of course, we need to move away from fossil fuels, number one, but we cannot get to the targets of Paris without protecting and restoring nature. That's something that the science makes very clear. We have the opportunity to avoid six gigatons of emissions by protecting tropical rainforest and peatlands and wetlands around the world. We have the opportunity to remove up to five gigatons of carbon every year by restoring forest ecosystems.

There's about a billion hectares in the planet where we can do reforestation and agro-forestry in a way that, of course, not only sequester carbon, but also restore ecosystems for biodiversity, which is the second crisis together with climate change, all while generating sustainable incomes for the communities that are going to be most affected by climate change, which is the global south. With that in mind is that we started this company to focus specifically on nature-based solutions and to bring these technologies that are advancing exponentially. AI and geospatial, we're sending new satellites every week to orbit that are sequestering high-definition images of our planet.

We have AI advancing in bounce and loops, allowing us to process all the data and to make simulations and predictions of our planet. Those are the tools that will allow us to know where to go and develop projects, ensure that the claims and the carbon accounting of these projects is done right and monitor that the projects progress correctly and empowering the local communities that need to do this work on the ground and give trust to the corporates and to the financiers that want to help protect and restore nature as part of the climate plans. Quite excited about this progress.

Patricia Torres: Fantastic. Let's think about if someone has a project and if they want to, say, this is how much carbon I can sequester from the atmosphere through my project of restoring the land, planting new trees, et cetera, what challenges do these project developers have today?

Diego Saez-Gil: They have many challenges. I would say the main one is finance. Many of these projects--

Patricia Torres: We have Standard Chartered in the room, right?

Diego Saez-Gil: There you go. These projects need upfront investment. Something crazy in South America, where I'm from originally, it's easier to get a bank loan to deforest and to agriculture than it is to reforest and sequester carbon. The banks don't know that you can actually make money by reforesting the land.

Patricia Torres: That's crazy.

Diego Saez-Gil: It is.

Patricia Torres: It should not be allowed. Maybe for 2024.

Diego Saez-Gil: Another thing that's crazy is that the land is more expensive if it's deforested than if it has a forest in it. These are distortions of the market.

Patricia Torres: I also heard about collateral, that you can't even use a collateral, right?

Diego Saez-Gil: Correct. Distortions of the market that doesn't give value to the environmental services of ecosystems. To your question, finance is something we need to solve. We need companies to be willing to invest upfront before the credits are delivered. Growing a tree takes years, right? Companies need to be willing to come in early pre-issuance and invest in these projects. We need financial institutions to finance that gap between the beginning of a project and the issuance of the carbon credit that will originate the income for these projects.

The second challenge is technical capabilities. They're focused on the rules, we're focused on the tools. These projects need data. They need to simplify. Methodologies are very sophisticated and complex. A farmer on the ground just need it to be simple, right? We're building some of these tools. There are other technology startups that are also building tools, and we think that with finance and tools we can really unlock the full potential of project origination. We need orders of magnitude more projects than we have today.

Patricia Torres: Can you tell me about the collaboration you launched with Verra?

Diego Saez-Gil: Indeed, Verra is one of the main issuers of carbon credits in nature-based solutions. They are investing a lot on digitizing their platform and their methodologies. We announced this year a pilot in which we are helping with the digitization of forest methodology in which we are automating one of the modules, some of the modules of methodology. These methodologies have several models in which you have to report the carbon stock, the baseline, looking at the surrounding area of a forest, selecting control areas that are relevant to the area of the forest that you're trying to protect or restore.

We automated that with an algorithmic approach that is going to be pre-approved by Verra, allowing projects to just get that part of the process done faster. This is just the beginning of a larger collaboration that we hope to have with all the standards to automate and standardize that data calculation.

Patricia Torres: The reporting. I think this is what we need, right? Once you have the standards and you have tools to ensure that you are actually capturing that CO₂, then hopefully these will unblock the market.

Annette Nazareth: I'm going to use that rules and tools. I think that would be fabulous.

[laughter]

Annette Nazareth: That's a fabulous way to put it.

Patricia Torres: My last question, again, COP28 come to action. We need action. We have no time to lose. 1.5 degrees is very, very, very close, less than six years. We don't want to overshoot because we have no idea what's going to happen to the planetary boundaries. What action do you want to see from COP28? Have you seen the action that you expected, or do you expect more from this COP? Annette?

Annette Nazareth: Well, I was very heartened by a number of announcements yesterday. Not only really the endorsement of voluntary carbon markets by a number of NGOs, great credit for our work by Mark Carney and John Kerry. Very gratifying that the UK Treasury representative said that the UK is actually preparing to endorse our Integrity Council work and to integrate our standards into their regulatory processes. Also, the Commodity Future Trading Commission in the United States issued guidance that they announced yesterday saying that the guidance is for exchanges and says, not surprisingly, that exchanges that they regulate when they trade carbon project credits, or futures on those credits, that they need to ensure that those underlyings have high integrity.

They went through what standards they think should apply, and they bear a remarkable resemblance, and ultimately, we're hoping that they officially say they do reference the CCPs in the guidance. I think we're seeing a much greater relationship between the voluntary market and the compliance market and governments. We're very happy to work together so that we provide an end-to-end solution to the problems that we have.

Patricia Torres: I'm hearing that you are super pleased with the action so far.

Annette Nazareth: Yes.

Patricia Torres: What about you, Diego?

Diego Saez-Gil: I'm very excited by all the announcements and all the closed-door conversations that I've been part of. There's a lot of progress being made in every front of the climate economy, so to say. My wish for 2024 is that the world gives a new chance to carbon markets. Like every other market, every other industry is evolving through trial and errors. We need to tell the positive stories. I like to say that a tree that falls make more noise than a forest that grows. There's a lot of good things happening on innovation in this market, and we need to tell those stories. I know that for journalists, bad stories drive more clicks than good stories, but we need the good stories as well.

Patricia Torres: Not at Bloomberg. Not at Bloomberg.

Diego Saez-Gil: Not at Bloomberg?

Patricia Torres: Not at Bloomberg.

[laughter]

Diego Saez-Gil: We need good stories of innovation, of success on the ground, and we need more capital. We need much more finance going into this market and in these projects.

Patricia Torres: Fantastic. Thank you so much for being with us today.