Sustainability Podcast

"An Update on the Carbon Credit Markets"

Transcript, 17 June, 2025

Mike Disabato (00:00):

Hello everyone and welcome to Sustainability Now where we talk about how the environment, our society and corporate governance affects and are affected by our economy. This week we provide an update on how the carbon credit markets are fairing, especially regarding the vitally important carbon offsetting and reduction scheme for international aviation, which is also known as corsea and is a big part of how those markets are faring indeed. So thanks as always for joining us and of course, stay tuned. You may not know this, but we're in the middle of an experiment to find out how we can account for who's responsible for internationally made carbon emissions. I mean emissions made when something happens between two countries like in the air or at sea. For example, a flight takes off from New York and lands in London and New York has a carbon reduction scheme, as does London, who should put the carbon emitted from the flight, which is equivalent to about three months worth of an average household's electricity usage in the US onto their books.

(01:07):

Should it be New York or should it be London? It's a complicated question without a straightforward answer, and it's an important question to get to the bottom of because for any of these climate goals to matter, we have to be able to actually correctly account for all of our emissions, not just those created within our borders. The aviation industry accounts for approximately two to 3% of human induced greenhouse gas emissions. The same with maritime shipping. So this is a serious amount of greenhouse gas emissions that if we don't figure out how to account for could be lost to the wind and they're still out there. We're just not measuring them and thus not trying to reduce them. But there's one industry specific initiative that's trying to tackle exactly this challenge for aviation. It's called corsea, the Carbon Offsetting and Reduction Scheme for International Aviation. And you know what? Instead of me going through this, I think one of my colleagues and guests today, kar, who is part of our corsea predictive modeling team, will do COR more justice.

Utkarsh Akhouri (02:05):

The whole idea of bringing in this scheme was that we are able to cover emissions happening when flights are taking off from one country to the other country. And I think kudos to IKO, which is the International Civil Aviation Organization, so UN body who has designed this program, and it's called Course Full Form being Carbon Offsetting and Reduction Scheme for International Aviation. And if I get into a little bit of technical detail, it requires airlines to offset any emission above 85% of their emissions based level in 2019 by purchasing approved carbon credits. And I guess our team, what we are doing really is valuing these carbon credits presently using indexes and price benchmarks, and then looking at the future of these prices as forecasts.

Mike Disabato (02:56):

If we stick with our experimental analogy, think of carbon credits as the measurable evidence, like results from a test, let's say that show whether efforts to reduce emissions are actually working.

Because in order for CORSEA to work and for this whole system of international collaboration on carbon emissions to be successful, those carbon credits need to be available and priced effectively and to know if that's actually the case, well that would require some sort of robust pricing model that tracks the price of the carbon credit market globally. Something like an index, let's say, and I think you know where I'm going with this to make sense of whether the market for these carbon credits is really functioning property. I'm joined by another colleague, Nicholas Baldwin. And Nicholas recently helped create several indexes that track prices and the quality of carbon credits and basically it's providing a clearer picture of what's happening behind the scenes. So here's Nicholas taking us through what's going on right now with carbon credit markets.

Nicholas Baldwin (<u>03:52</u>):

We've launched 13 new MSCI carbon credit price indexes that track prices across the whole carbon credit market. And the reason we did it is there is no established reference price for the carbon credit market. It's a market that's been operating for a while, but it's been doing that without an established reference price. And having a reference price is really important for any market and particularly for comm credits where buyers and sellers don't currently have a lot of price transparency and need to lock in pricing for what can sometimes be long multi-year commitments. And so establishing a reference price that's widely accepted within the market would be a really important aspect of helping that market grow. We've done price indexes that track prices for the whole of that common credit market, but also for specific subsections for nature, for renewable energy credits, for credits that are eligible into different schemes or have a certain quality rating, one of which is the corsea market, the scheme for airlines. So we produce a price index for corsea phase one that tracks the price of credits in the spot market eligible into that scheme. It's not only useful for airlines, but it's useful for the wider carbon credit market because that corsea scheme sets out quite stringent quality requirements and those requirements are considered a mark of quality by all sorts of players in the carbon credit market.

Mike Disabato (05:22):

Okay, that's a good overview, but let's get into the details here. You've been looking at these price indexes for a little bit now. What are you seeing in the market with regards to the actual prices of carbon credits? Let's focus in on the carbon prices for corsea though, because corsea is this mandated part of the typically voluntary carbon credit market. And it's also, as we've been saying, this broad experiment that we're all in at the moment that can have larger applicable aspects to not only airlines but maritime and any international carbon emissions that there are out there. So it would be good to focus on that specifically.

Nicholas Baldwin (05:56):

So the price of carbon credits in the market varies hugely. It's really a very heterogeneous market. You've had some credits that trade as low as 50 cents a ton and other credits at over a hundred dollars a ton, which is one of the aspects that makes it really difficult to establish usable price indexes. Under corsea, we see prices for fully eligible credits trading in the low \$20. There's a burgeoning futures market for corsea and prices there are around \$17. But if you look at the price for credits that are eligible into this scheme but don't have all of the finer detail, which is known as a corresponding adjustment or the sort of insurance products that make it fully ible into course, then the price is around \$4 a ton. So what the market's really been suffering from is a lack of supply of credits that are fully eligible into cor. There has been for a long time just one project that was fully eligible into that scheme and carries an associated price premium that brings it up to that sort of rough \$20 level.

Mike Disabato (07:04):

Okay, so \$20 20 US dollars per credit, which is about 20 US dollars per ton of CO2 abated. And if the price forecast of our carbon credits market team that they just put out is to be believed, \$20 per ton could be a decent chunk of change for some of the airlines with the highest demand such as Emirates and United Airlines that could be demanding in the tens of millions of tons of carbon credit equivalences in the coming years due to course. But this is where the situation gets more difficult because as Nick noted, there's a potential shortage of suitable credits for course. And part of that is due to you the requirements of corresponding adjustments that Nick mentioned. And let me explain corresponding adjustments for a second. Here's how it works. Country A sells a carving credit, say for about one ton of CO2 to a company or to a government or whomever in country B.

(07:56):

So country A sells something to country B basically without a mechanism to balance this transaction, both countries could claim the same emissions reduction. That's a big problem because it undermines the integrity of the system. We'd be counting the same ton of CO2 reduced twice, and this is where corresponding adjustments come in. It's like an accounting tool that says whoever sells the carbon credit adds a ton to its reported emissions. Whoever buys the carbon credit subtracts a ton and it's vital of course, is to work so we don't end up double counting everything and emitting way more than we'd say on our ledger. And that airlines spend a lot of money and nothing really is accomplished. And many countries, this is the problem, they have not gotten around to issue their corresponding adjustments needed for their individual carbon credit markets. And that's due to various reasons that we're not going to get into today. But what it does is it chokes the supply of eligible credits for course. So to figure out what that means for airlines, I turned back to Kars and asked him to take me through it.

Utkarsh Akhouri (08:57):

Point number one is airlines might end up scrambling to get the right eligible credits in the future because supply is less. And the demand, if we look at all the countries who are participating and look at all the airlines which will be part of this program, the demand is pretty much more than what the supply looks like currently. So that's one concern I have is that if the supply isn't ramping up quickly, there will be a supply deficit which would a lead to higher prices because everybody's looking for these credits. And B, because it's a compliance program, airlines will have to meet their obligation, which means they have to buy credits somehow. Otherwise, there are discussions around, it's not finalized yet, but there are possibilities of getting a penalty or paying a fine if in case you're not meeting your obligation. That's been discussed, not being finalized yet, but that's something which can also come up if they are not getting the credits. So those are the two challenges I feel airlines have with this market as it progresses.

Mike Disabato (10:00):

So yes, there are significant challenges ahead, but it's still early days in the CORSEA experiment. And as we move forward, how countries and markets adopt could significantly shape our ability to tackle international emissions effectively. Remember, that's why this thing is so important. And as things progress, those supply constraints and pricing issues may correct themselves. It's something that UAR is monitoring as part of his and his teams course CF price forecasting model. So I asked him if he could take us through what the future might hold as it pertains to course, and of course the broader carbon credit markets. This does involve some speculation. Sure, but it's grounded speculation using carefully modeled scenarios. So I just asked uars directly, can you forecast where these carbon prices might be headed? And he said,

Utkarsh Akhouri (10:48):

Yes. In the future when the demand picks up, because when the airlines get closer to their compliance cancellation dates, when they have to submit those credits, then I think it's a general tendency now in any compliance market that airlines or any obligation entity tries to buy credits very close to their cancellation date. Of course, yeah, that end of phase is in 2027. So clearly around 20, 26, 27, a lot of demand will spike. So the prices would be much higher than what you're seeing right now. That's what the model says, and that's what our scenarios are also talking about. But on the flip side, I'll give you a more interesting view to it, is that this is a very geopolitically charged market. This whole market is relying on the fact that countries participate in it. It's currently in the present phase. It's possible that some countries may just back out and say that we don't want to participate. (11:46):

And that would bring down the demand. And that's one of the analysis we have done. Like if US, China, Russia, India, these are the countries who've been giving some indications that they're not very happy with being part of this program for their own reasons. But if that happens that if they're not participating, then that supply deficit is not really that big. So your demand comes down and then you have enough credits as well. So probably the prices would remain at similar levels or slightly higher levels than what the index prices are showing right now. So it's a really interesting market where geopolitical dynamics may play a role in where the prices end up by the end of this phase.

Mike Disabato (12:23):

If those countries backed out of Corsea, India and China, for example, or the countries with the largest projected growth in airline passengers in the coming decades, that might make the regulation less effective, let's say. But let's pretend this is purely because of supply challenges. We won't get into the geopolitics with these possible pullouts because it's just too complex for the time remaining. So let's hypothetically say the countries are just worried about the supply and they're saying, look, you don't have enough credits for us to ask our national airlines to participate, fix that problem. And we're in. How could the program go about fixing its supply issues?

Utkarsh Akhouri (<u>13:01</u>):

What's happening is that there is supply. It's just that countries are not ready to give the corresponding adjustment approval to those credits, and that's stopping supply. And that's something we've modeled this time and discussed a lot in our reports, is that we assume a scenario that IQ O comes to a point that they realize that the prices are going up and they should increase supply, then they would start to incentivize more countries that they should issue their corresponding adjustment approvals much faster than they are right now. And that would probably easely a little bit. That's one of the ways it could be done. So it's really the market design has to evolve if there's a positive note that this is a really, so this whole experiment of course here is really a good starting point of considering how international sectors like aviation and then maritime would really, these are hard to evade sectors as well as they're all international. They both have international emissions. It could become a blueprint of how to deal with decarbonization challenges where you're going across boundary. So I think that's a good blueprint, which course set up, and hopefully this is successful and sets up for more such programs to come up in these sectors.

Mike Disabato (14:12):

So that's where we're at with corsea. That's what the carbon credit markets are looking like today. On paper, corsea is an ambitious and admirable program. It's asking airlines to better account for their international carbon emissions by using this market driven solution. But as we've heard today, these ideas could get complicated and they're just starting out and we got to give them time. We've got a supply squeeze on carbon credits, we have tricky geopolitics and we have countries aren't even sure they want to play along, but whether or not Corsea actually works could tell us a lot about how or if the world can get together and tackle the trickiest parts of climate change, those big global problems that

no single country can solve alone. So we're going to continue to keep an eye on this experiment because watching how these complicated solutions unfold is going to tell us about how proposed ideas in the future may actually look on the ground. And that's it for the week. I wanted to thank Kar Sha Nicholas for talking to me about the news with the sustainability twist. I want to thank you so much for listening. If you like what you heard, don't forget to rate and review us. That brings us higher up on podcast lists and subscribe if you want to hear sustainability now each week. Thanks again and talk to you soon.

Speaker 4 (<u>15:40</u>):

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