

SM55 | 2.5.2022**Demystifying the Carbon Markets | Episode 1**

Phil Hardwick, COO, Base Carbon Corporation

Phil Hardwick, COO of Base Carbon Corporation, joins host David Greely to kick off our podcast series Demystifying the Carbon Markets. Phil sets the stage and shares the benefits of his more than 15 years of experience in the environmental and carbon markets, working with both carbon project developers and investors to bring investment capital to high quality projects that reduce and remove carbon emissions to fight climate change.

Philip Hardwick (00s):

But it's not a gold rush, you know? The best projects take time, and they take time because it takes time to prove credibility. So, you know, I think if, if you're saying to me, what do we need to do, we need to keep asset. We need to scale it and we need to be patient with it, but it is all of our problem, we all created this, you know, this issue of our planet that we live in.

Announcer (24s):

Welcome to Smarter Markets. A weekly podcast, featuring the icons and entrepreneurs of technology, commodities and finance ranting on the inadequacies of our systems and riffing on ideas for how to solve them. Together we examine the questions are we facing a crisis of information or a crisis of trust and will building smarter markets be the antidote?

David Greely (52s):

Welcome to demystifying carbon markets on Smarter Markets. I'm David Greely, Chief Economist at Abaxx Technologies. I'm thrilled to have Phil Hardwick here to kick off this series on the carbon markets. Phil is the COO of Base Carbon and has spent the past two decades in the carbon markets working with both carbon project developers and investors to bring investment capital to high quality projects that reduce and remove carbon emissions to fight climate change. Hi, Phil, welcome to Smarter Markets.

Philip Hardwick (01m 22s):

Thanks Dave.

David Greely (01m 23s):

You've worked in green finance carbon environmental markets for over 15 years, and you've been demystifying the carbon markets for your clients for many of those years and I'm really happy to have you here today to help do the same for us. It's the first episode of the series. So let's start at the beginning. We talk about carbon markets, plural. There's not a single carbon markets, but there are many different markets and types of markets that fall under this broad umbrella of the carbon markets. Can you walk us through the landscape, like what are these markets and what are they trade, what are they for?

Philip Hardwick (02m 01s):

First and foremost what are they for, they are for tackling the negative externalities of our existence on this planet. You know, what we do commercially and in our daily lives has a negative impact on our environment. We all know this and carbon markets or environmental markets are mechanisms that we have developed over the last 20, 30 years of economic thinking that can help use market mechanisms to challenge and address and redress some of these problems. I think when we're talking today, we're really talking about carbon markets. We have had previous environmental markets, markets that tackled acid rain, which were incredibly effective and carbon markets are, are what we're using as a term now to tackle the climate change issues created by greenhouse gases, but carbon is the base currency of these gases. You know, carbon markets could actually mean the emissions from a number of harmful gases, hydrofluoric, carbons, carbons methane, and of course, carbon, we just use carbon as the base currency.

Philip Hardwick (03m 07s):

So I think that's the first term for everybody to remember, it's not all just carbon and ignoring methane carbon reduction projects cover all of the gases, couple of terms that can crop up our compliance markets and voluntary markets and carbon offsets and carbon emissions credits. So compliance voluntary well, that's relatively straightforward to understand voluntary doesn't mean do what you want, you know, and claim that you've done something good voluntary markets mean that you, you are making an action voluntarily,

but you follow the rules of the voluntary carbon markets. Compliance markets means there's a law. You know, you're mandated by some law or instruction to behave in a certain way that either generates or provides, you know, credits for your actions. So that's what we mean by voluntary and compliance, carbon offsets or carbon emissions reductions as I prefer to call them carbon emissions credits are two quite different things.

Philip Hardwick (04m 10s):

Carbon emissions credits are those units, which are used under cap and trade mechanisms. The most notable cap and trade mechanism is of course, the EU ETS, which was created by the European Union, following the Kyoto protocol, which opened up the, you know, the global consensus to use market mechanisms to address climate change and a cap and trade scheme was adopted in the European Union. Effectively we set a total limit on pollution and everybody is doled out tickets to their fair share of that, that pollution and we're talking about, you know, in the European Union over 10,000, maybe 12,000, 15,000 installations that have some sort of negative environmental impact they're monitored and, you know, their maximum emission is allocated to them in terms of certificates. If they over pollute, they need more certificates. If they under pollute, they can sell the certificates.

Philip Hardwick (05m 06s):

But there's no creation of a certificate there, they're given out by the state, by the system, that's administering the scheme and then they are traded like a currency in amongst the participants, I think for, for today's purposes and what's really a hot topic in capital markets, commodities markets right now is carbon emission reduction projects and they can be compliant and they can be voluntary. The most prominent at the moment is the voluntary market, but what we're talking about here is using capital to invest in projects that effectively reduce emissions somewhere outside of your operations or your jurisdiction. So you might be investing dollars into the reforestation of an area that is going to sequester carbon over time and you're being monitored and you are using those credits as a tangible and fungible unit to put against you, the commitments that you're making to reduce climate change, but they don't necessarily anything to do with what you do as a day job.

Philip Hardwick (06m 09s):

So I hope that that, that clears something up. I mean, this market is of course for everybody, but the major participants are, of course, those that pollute the most, you know, and of course, as we know, you know, the fossil fuel industry, the heavy industry, the airlines but as we realize more about our impact on planet earth, it's increasingly, you know, clear that it's the supply chain for food, you know, it's the multinational companies and all of us, you know, play a part in that. So the market participants are all of us, but of course some sectors are far more polluting than others.

David Greely (06m 45s):

Yeah and over your career, I mean, you've worked with all sides of these markets. Can you introduce us to what are some of the roles of the various folks in the markets what types of participants and what roles do they play and, you know, what has your role been in these markets?

Philip Hardwick (07m 02s):

You know, my role goes back, you know, to my studies of economics at university. And, you know, back then, you know, in the late 1990s, environmental economics was a very small subset of the, you know, the economic syllabus, but it was one that interested me and one that I started in and one that I wrote about you know, today, if you look at economics courses, they're absolutely full of environmental markets and sustainability courses, which is a fantastic thing. My career, you know, has been in the banking sector and investment banks and as you know, as a consultant and advisor but always in the field of energy, carbon, clean energy and commodities. So, you know, that's my background and as the European Union opened up, it's EU ETS, you know, as both a cap and trade scheme, but also having fungible carbon offsets within it.

Philip Hardwick (07m 51s):

You know, the role that I've played is as a project developer and that is going and finding projects around the world to either invest in or develop from scratch that create emissions reductions and using either the banks or clients capital to make sensible, you know, long term investments into these schemes. But as I said, you know, it's not just a voluntary, you know, mechanism where you go out and you say that, oh, we've done this, you know, project and we've reduced emissions and please, you know, believe us, there's a whole infrastructure that underpins these markets and in fact, you know, the, the infrastructure for emissions reductions and voluntary emissions reductions goes back to the late 1990s and it really hasn't changed in its infrastructure particularly much, you know, a methodology is proposed to in a registry organization and the biggest most notable and respected at the moment in the market are

definitely Verra, the Gold Standard and the American Carbon Registry, those registries and those overseeing bodies will either accept or reject the methodology.

Philip Hardwick (08m 55s):

They'll put that methodology up for public scrutiny and it can be peer reviewed, which is a great process, but effectively, you know, at some point that methodology is accepted or rejected. Once it's accepted, other participants can use that methodology, which is effectively a codification of the rules and assessment criteria for a type of project and they can implement their own project and that's how the system worked in the late 1990s and it's how it works today. In fact, when the European Union, you know, adopted carbon offsets into its cap trade scheme, making them fungible units, it looked to the voluntary carbon markets for the mechanism, the clean development mechanism of the United Nation's framework conventional climate change is effectively the same system as for the voluntary carbon markets and the same that we have today. You know, what has changed through time is that is the projects that that are used. So the transactions are, you know, either as a legal requirement to create emissions reductions or there for your own personal objectives, but the way that they're measured and the way that they're monitored is really not changed.

David Greely (10m 07s):

And it is interesting that there is that symbiosis between the compliance and the voluntary markets. People often think of them as very distinct, but there is a lot of learning and feeding and growing off of each other, as you mentioned as well, I know you don't like the name carbon offsets, as you've said and I think the preferred would be a carbon reduction project, I think that's right, but when we look out at the, you know, there are many different types of markets, but also many different types of these carbon offset sources or carbon reduction projects, could you describe some of these to us because I think it's really important in that many people just think of an offset of like, oh, I'm doing something I shouldn't be doing, or I'm doing something that has a negative impact. So I'm gonna do this other thing, but the reductions themselves are projects that are having really positive impact and I don't think people often get to hear about that who aren't deeply involved in the markets.

Philip Hardwick (11m 00s):

That, that that's absolutely right and I think the point here is not all carbon offsets are created equal. You know, not all barrels of oil are equal, not all flows of electricity are exactly the same you know, and it's the same with carbon market and, you know, if you're investing in this area, you really do need to understand the difference, the structure of the market, the way that a project is created hasn't really changed as I said, but if you look 10, 15 years ago we were able to use carbon finance to fund renewable projects, solar wind, you know, hydropower. You can still do that today, but they're gonna struggle against the test of additionality i.e. would it not take place without carbon finance, so carbon finance, carbon offsets, carbon emissions, reduction's called, and what you like the intention is that they are the catalyst for making an investment happen.

Philip Hardwick (11m 56s):

If a project or a methodology like photovoltaic stands on its own two feet financially, as it does now with the price of PV falling so dramatically over the last decade, you don't need carbon finance and so you can't claim that it's additional. Equally you can't have carbon finance if a law is in place to, you know protect an activity or you know, a polluting behavior. So carbon has to be additional. It has to be the carbon finance has to be the reason that something occurs and of course within that spectrum of what types of projects are there, there is a broad range, there is projects that reduce emissions, which is great. It's a very necessary process and we have to both to you know, we have to keep reducing our, or improving our efficiency, you know, in our, in our energy uses, but we also have to remove carbon from the atmosphere or sequester it.

Philip Hardwick (12m 53s):

So I think if you look at the evolution of projects through the last 10 to 15 years, you get some really interesting stories. As I said, you know, if you looked at carbon portfolio 10, 15 years ago, some of them were entirely made of small hydro in China or wind farms or solar you really won't find those today and you will find a lot more nature based solutions, but in between here and there, you know, we've had some real fall overs. We had a methodology which produced an awful lot of CERs so that's certified emissions reductions under the compliance scheme of the EU ETS, which was effectively the flaring of hydrofluoric carbons, the gases that are used to make refrigerants effectively torching that gas as it came out of flow pipes. So, you know, what are you doing there, you're converting HFCs, which are 23,000 times more polluting than carbon into carbon.

Philip Hardwick (13m 48s):

So that's a good thing. If you flare HFC, it's less polluting to the environment, but these projects had the perverse incentive of creating more flaring. You know, it's very cheap to flare and you were getting an awful lot of credits because of the multiplier effected 23,000 to one for doing not an awful lot and so a lot of money flowed straight into these projects, it looked like a really great way to generate a lot of credits, very cheaply, but, you know, time catches up and, you know, it was soon apparent that these projects were not really delivering the environmental impact that they, you know, were anticipated. So that entire methodology became effectively null and void and a lot of people who had those in their portfolio or were having future credits were losing money on their investments. So I think, you know, guys like myself and, you know, contemporaries of this market for the last 10 to 15 years are very cautious about which projects we invest in next.

Philip Hardwick (14m 45s):

And I think, you know, across the nature based solutions spectrum, you have to be very cautious as well. It's quite clear that planting a tree is an additional behavior and it will sequester carbon. It's quite clear that delivering cook stoves, you know, reduces the fuel usage of millions of the population and has great additional benefits you know, to human health. Can we be quite so sure about, you know, protecting rain forests, you know, it's an area of debate for the market at the moment, but you know, if you are saying that our carbon, you know, finance is effectively protecting a piece of forest, what are you really doing there, you call it a nature based solution, but really it's a security based solution. It's guys with guns and of course, you'll find that a lot of these projects really sell up the sort of SDG side of it.

Philip Hardwick (15m 36s):

There's a lot of pictures of monkeys and parrots, which give a dopamine hit to the amygdala and make everybody feel great, but if you actually scratch the surface and think about it, that somebody's claiming to be protecting a hundred thousand hectares of land with carbon finance money, how are they actually doing that and if you're not actually planting a tree, what are you actually doing, that's additional, this area is a massive topic, and we could have a, a whole podcast on its own on this topic, you know, is that really the role of private finance to be involved in those types of projects, or should that be left to the governments, but you know, there is a huge element of caveat in this market, and you should be doing your research on exactly what types of projects you're investing into because it's not fully commoditized yet.

Philip Hardwick (16m 21s):

You know, it trades in very similar ways to soft commodities. You know, there's a vintaging to these credits. They go off over time. Nobody wants emissions credits created in 2008. Everybody wants the one's created today and of course there's all the geopolitical risk of where your credit is based, but there is also, you know, the risk, which is not obvious, which is one ton of carbon emissions reduction is not the same as the next to it comes from a very different place and is generated by a very different scheme and so, as I said, caveat to the investors who are looking at those types of projects.

David Greely (16m 56s):

Yeah. It definitely seems like a market where you need to beware and need to have you know, experienced guides to help you negotiate and understand the quality of what you're looking to purchase. When you look across the quality spectrum that's out there today I, you know, I've heard you mention, you know, nature based solutions, cook stoves and then I think a lot of us will read in, you know, the press about more technological solutions, you know, pulling carbon out of the air and, you know, combining it into rock and carbonates, that can be sequestered away. When you look at the supply of projects that are technologically feasible at scale now, is it that more of the high quality are in the, the nature based camp and it'll be an evolution to the more technological or are both of those available now?

Philip Hardwick (17m 49s):

I think our evolution is definitely in the nature based solutions and I think that our best device for successfully sequestering carbon is currently still the tree or the plant life, you know, or the wetlands or the grasses, the grasses have a huge impact, which we've not particularly, you know, pioneered yet in this market and it is coming. But yes, the next, you know, the evolution is in the nature based solutions at the moment and I think that there's a lot of, you know, investment dollars looking at these areas, clearly not just in what can we grow or what can we preserve, but what can we do to the soil, you know, biochar, which is a relatively simple process, you know, of creating charcoal, you know, adding agricultural nutrients to it and planting it in the soil one, you know, helps sequester carbon and two creates great knock on effects for the plant life, the soil and, and the fauna that grows, the floor and fauna that grow there.

Philip Hardwick (18:45):

But yes, that's definitely where we are today, where we are tomorrow has to be, you know, something more scientific. We know that the cement industry, the building industry, the construction industry, are all looking very, very hard at, you know, building materials that sequester carbon by putting, you know, mixing new types of rock into the building materials that can hold the carbon and of course we don't know, you know, what the next great invention is going to be is, but we keep, you know, keep our eyes on that and this is what carbon finance is. It's at the Vanguard of these developments. It's not, it's meant to be there to pioneer the next technologies. It's not, you know, it's not there as just a way of permanently being green. You know, eventually we shouldn't need carbon finance and we certainly shouldn't need carbon trade schemes there, you know, they're catalyzers, but we have to go through this process and we have to keep moving forwards.

David Greely (19m 40s):

And when you say catalyzer, could you elaborate on that?

Philip Hardwick (19m 44s):

Yeah, that's right, Dave. I mean, it, it is about catalyzing investment and it's about, you know, marginal costs of production on compliance schemes. It's about forcing behavior increasing the price of the carbon credits means that companies have to invest in new technologies eventually because the price of the carbon credits is going up and up and up and you can see that in Europe right now with all, you know, super high carbon prices, which will force behavioral change. In fact, the price of the EU ETS credits right now is so high that it's becoming a political problem. It's, you know, it hasn't gone too far, right. You know, because it can't, you don't want to cripple technology and put it out of business, but you want to force behavioral change. That's marginal, you know, marginal cost to marginal abatement and there's, you know, some fairly rudimentary economic theory that underpins that in carbon emissions reductions projects in the voluntary emissions market in the CDM, it's a similar desired outcome to change behavior.

Philip Hardwick (20m 46s):

But the idea is that the money can only be used when it puts an investment, you know, into profit because it's there. So you can get the credit at the end of it, which has a market value. If there isn't already a finance opportunity for this, or if it's not common practice, so we can't use carbon finance for the solar PV on our roofs. One there's probably subsidies, or there certainly used to be subsidies supporting it and two, the photovoltaic is just too cheap. You know, that's not a good place for carbon finance, but actually if we can plant trees and that the fact that we can get carbon offsets or emissions reductions certificates at the end of that, and they have a market value that can be sold, which then means that the investment can take place, it can cover the CapEx and the OPEX and a profit can be made.

Philip Hardwick (21m 40s):

Then that's a fantastic thing because we really, in 25 years have not come up with a better mechanism for taking money out of corporate pockets and putting it against some of the negative externalities that corporates and our behavior on this planet have created. That's the sharp reality is that it's a market mechanism that catalyzes new behaviors that just simply wouldn't take place in its absence and this is really the fundamental argument for carbon markets is that what's the alternative because you know, taxes are avoided and rules are ignored and, you know, carbon markets are not perfect, but you know, they've been a long time in development and you know, had great impacts and can be improved upon and, you know, it's a case of, let's not throw the baby out with the bath water, but let's just keep developing these markets so that they continue to deliver the kind of behavioral change and investment change that we really, really need, but yeah, carbon finance is not for every, every scheme that is dreamt up. There's a huge amount of rigor in the process, and it can only be invested for things that really, you know, would not occur without it.

David Greely (22m 50s):

And I would feel remiss right now, if I let you go without walking through that, how do you operationalize these transactions and these projects, could you walk us through given your experience what a typical carbon reduction investment or carbon offset transaction looks like if someone's coming into these markets that, you know, are still developing. I imagine a lot of it's bilateral, you're not just gonna go to your, you know, Bloomberg terminal or to a screen and, you know, make a purchase, but how does this work for someone looking to invest or obtain the offsets generated by a carbon reduction project?

Philip Hardwick (23m 32s):

Yeah. So there are fairly nascent, carbon exchanges occurring now, you know, and that's a necessary development of any market exchanges are often the cheapest to deliver outlet and in this market with such diversity between the projects, the honest truth is at the moment, most of the, you know, the trading is still really OTC and in fact, if you think that the ultimate buyers of these projects are those companies that have huge net zero targets, they're not in this market to trade per se that's a byproduct of any market, but their objective is to have emissions reductions projects that they can use for their own purposes. So a lot of the new and good transactions effectively ROTC, and may never see the light of the traded market, but yes, you know, as it grows, there is you know, a real movement towards exchanges.

Philip Hardwick (24m 31s):

One dynamic of the current market is that not a lot had been developed from the end of the EU ETS involvement and until the last few years when we've seen the explosion of net zero targets. So we have a somewhat of a huge demand right now, but a production, you know, short you know, a lot of the credits that are out there are either quite old and not particularly credible, or they're from, you know, methodologies that can produce emissions reductions in scale quite quickly and there could be issues there, but over the coming years, as that supply begins to catch up, I think you'll see that the exchanges have got a lot more trading on them. They've got a lot more liquidity, obviously, and a lot more differentiation. The market's got a lot more education about what it's buying into and, you know, and the emissions reductions methodologies that are really credible as we've seen over the last 15 years will be the ones that stand the test of time.

Philip Hardwick (25m 31s):

So, you know, the lessons from the past, you know, are being learnt. The great example that I have is the cook stoves, which is, you know, there really, hasn't been a huge amount of criticism of that project methodology over the years and 15 years later, it's one of the methodologies that still is in place you know, as I said, solar wind have pretty much fallen by the wayside and aren't particularly desired anymore and we have new project types in the nature based solutions, but the really good ones stand the test of time you know, they improve the MRV improves that, you know, some of the underlying how humanitarian needs for these projects are a different problem that carbon markets can't quite address, but if it's a credible methodology, then it's you know, that it will stand the test of time and it will eventually find a way onto a traded, you know, exchange market if this process and, and this growth continues.

David Greely (26m 22s):

Yeah, that's a great lesson that's been learned from the past and I think, you know, with ESG investing, having entered the mainstream in such a big way over the past couple of years, that, of course we have many investors that are new to the carbon markets, but as you've made clear the markets themselves, aren't new, I've heard many participants refer to carbon markets today as carbon 2.0 or the evolution over the carbon 1.0, markets of 2000s of that decade. When you look back over the evolution that's occurred, are there any other lessons that you think are important that we learned from what we were doing in the early 2000s that have, you know, need to be remembered today?

Philip Hardwick (27m 03s):

Yeah, for sure I mean, we've definitely seen a stampede into certain methodology types that I'm cautious, you know, could be repeated because we have a lot of new investors now, Carbon 1.0, you know, there were a lot of new investors you know, and then we got problems with, you know, methodologies like HFC and large hydro, you know, and I'm, cognizant that it's easy for that to happen again with the wrong methodologies and if there isn't much in the market, you know, and there's only red projects out there that, you know, of course, you know, everybody's gonna jump on those but if we do make mistakes, you know, we mustn't throw the baby out with the bath water because really we haven't seen a credible alternative in 25 years. So we've got to just, you know, learn from the mistakes that we will make and keep improving, but yeah, be cautious about the methodology.

Philip Hardwick (27m 56s):

I think, make sure you're investing with a partner and somebody who's got a vested interest in the project. There's you know, there are a lot of horror stories about brokers in this market and both the compliance markets and in the voluntary markets, so do your research on who's selling it and, you know, and, and what, you know, this is one of those markets where you prefer to, for you, you know, your, the person you're buying from to have a vested interest in the project. You, you really do want that partnership. You know, because these projects can last 10 to 15 years and if you're serious about, you know, making a difference, you know, it's not a straightforward binary zero sum game to kind of market, you will find people who told you that they have bought carbon credits, very cheaply. You know, I've got a project I'm buying all of it at \$5, you know, and that's just to an experienced market practitioner.

Philip Hardwick (28m 46s):

That's a red, red alarm bell right there because you know, the world is so connected that it's very clear to the project developer very quickly if the price that they've sold at is off market and that they're being taken for a ride and it's not a zero sum game and what happens and we've seen this before, is that if somebody loses they down tools, you know, the project falters, it stops. So, you know, transactions have to be progressive. They have to share the revenues, you know, throughout the success of the project, but of course they need to cover the initial investment and make money and actually, you know, structuring transactions that do that successfully over time is difficult and challenging and everyone is different and you know, that's kind of the expertise that, that people who have been doing this a long time bring is that knowing that, you know, everything that glitters is not gold and that a good project is structured in a very sensible way that shares, you know, risks and rewards. So I think that's very much a lesson from the past that has been learned. But like I said, I think that the structure of these markets hasn't really changed the, and that tells us something, you know, one of the most successful, you know, products of the 20th century the motor car really is fundamentally the same car at the beginning of the 20th century, the same way that works as, as at the end. But you can't say that we didn't improve it.

David Greely (30m 07s):

And I, want to return to that point with the idea that just there's so much demand coming into these markets so quickly that as supply rises to try to meet it and you have to be very careful because it might not be quality supply. So that raises the risks for people coming into the markets, but before, just on, you know, since we're trying to demystify the carbon markets, you mentioned red projects, which may not be familiar to people. Could you just give a brief overview of what you mean by red projects?

Philip Hardwick (30m 38s):

Yeah. The REDD, you know, reduced emissions from deforestation that's what, you know, REDD stands for reduced emissions from deforestation means stopping deforestation. Now, of course, one of the great side effects of stopping deforestation is that you protect the habitats. But of course, you know, if you're talking about mature forests without a great deal of growth left to go, it's not actually particularly additional sequestration if they're fully mature, but you're taking credit for the stopping of deforestation. This is quite a divisive topic, you know, for our organization, we are not particularly keen on that methodology. We don't think that it's absolutely a necessary thing to be done, but we'd much prefer that that stayed as the role of governments, which I think if we can't protect our own forests in the way that we would protect our borders, then you know, we have serious issues.

Philip Hardwick (31m 35s):

And I think that, you know, the moral suasion that is winning now to move us towards a more environmentally conscious way of living should be able to make our governments protect those lands. The secondary issues are that if you claim to be protecting a hundred thousand hectares of land, you are protecting a vast area. We are working on a project at the moment, which is reforesting about 30,000 hectares. So that's planting new trees. That's the size of Malta. So if you've got projects out there that are saying, you know, we are protecting a hundred thousand hectares, 200,000 hectares with carbon finance, you're effectively saying, you know, we are the military, you know, we've got an operation that is the, you know, is effectively the military operations of a small country and there's a couple of things. There is one, have you really, and two, you know, what other problems are lurking when the corporate sector is taking on that role.

Philip Hardwick (32m 31s):

And so for that reason, you know, we start to put that in the category of the HFC of Ks is this a bit of a problem waiting to happen because to us, you know, whilst you get a great feeling about, you know, thinking that your dollars have protected orangutans and it's absolutely necessary, is it really, you know, an emissions reduction and is there that page one risk, you know, and that is the COO tapping into his Friday you know, his boiled egg in the morning and spitting it all over the front page of the newspaper, because there's his company with a real headache, you know, because something's gone wrong with his, you know, security forces in an area of the world, which is, you know, impossible to police effectively you know, at a commercial level. So, you know, that's, I guess where we're coming from with that

David Greely (33m 18s):

That's very helpful and another important lesson from the past that we don't want to forget because they're, you know, managing risk is an important part of these markets and the commitments that bring people to these markets need to be met in credible ways with quality projects. I want to return to the point on the demand, you know, you and I have talked about this in the past and you know, there are a lot of numbers that are put out there in terms of, you know, how large these voluntary markets could potentially grow you

know, there are current estimates of around a billion dollars a year and demand, you know, around a hundred million tons of CO2 per year, Mark Carney's task force on scaling the voluntary carbon markets has estimated that over the next 10 years, you know, it could be a demand of 1 to 2 billion, tons of CO2 per year and a hundred billion plus market. So there's a lot of debate about these numbers, but what seems to be clear is that we're probably gonna have a lot more demand than we will supply. So what I'm really curious about is what will in your view, will it take to grow the supply of quality carbon offsets to meet the level of demand that we're likely gonna need to meet if we're gonna meet these climate change objectives?

Philip Hardwick (34m 35s):

First of all, calculating the size of that demand is a really challenging business. If you, you know, I can only give anecdotal numbers and, and, you know, if you look at Microsoft taking their emissions back to 1979 and all of their, you know, their processes calculated at about 7 million tons, I think, I think that's about six months of Qatar Petroleum's offshore activities. You know, Qatar petroleum is a fairly, you know, well, it's a big LNG player, but it's not really a, you know, it's not really in the top 10 of oil majors. It's just a phenomenal short position. Then you've got the factor of how much of this is actually gonna be offset. You know, we've seen Exxon, you know, make great strides into, you know, the climate change problem, and have said that they, you know, are not particularly keen on using offsets.

Philip Hardwick (35m 28s):

So if one of the biggest oil players isn't gonna use offsets, it's only gonna use it for one to 2% of its activities. You know, how do you, you know, how do you calculate that, so is that the same as Shell, no, I think Shell is far more adventurous in the way it tackles its climate change obligations. You've got so many variables that putting a number on it is really a challenge. But anecdotally it's definitely huge because the phone is ringing. You know, our clients have always been in the corporate sector, so we get a somewhat of a temperature gauge from it and it is, you know, there is an incredible demand out there at the moment because there's only so much that certain companies can do. If you're a Nestle, you can really start to tackle the seed to shelf activities that you have, and you can make great changes.

Philip Hardwick (36m 17s):

You can inset, but if you are BP, you know, whilst you are changing from a, you know, being a fossil company into renewable energy company and let's make no bones about it, that's what they're doing. They're not gonna reduce their activities such that they can produce clean fossil fuels they can't, you know, the strategy for our oil sector is that it will not be an oil sector. Eventually it'll be a renewable energy, you know, sector, because they physically can't do this, this task is insurmountable. The science isn't there. Yeah, so they change their business model. What is required is huge and it definitely needs a lot of work to think about the next technologies that's the biochar and the technologies that we don't know of, but actually if we're gonna get planting trees, which is, you know, again going to be challenging because planting trees in the right way is not gonna work perfectly every time.

Philip Hardwick (37m 15s):

You know, economically only just about stacks up at the moment and when we look at projects and we're looking for conservation trees, there just isn't the data, you know, there's, there's bucket loads of data on commercial trees eucalyptus and all the trees that have been commercially forested, but actually if you start trying to find data for indigenous species in Southeast Asia, you are scratching through university records, you're scratching through all books, you know, so there's a lot of structural scaling that needs to be required and there's a lot of patience with the system and, you know, people have got to be aware that there is no money press here. This is not a printing press of carbon certificates. If somebody's offering you a new carbon projects and they're saying that, you know, it's producing credits next year, you know, you really need to do your due diligence because it's a slow process.

Philip Hardwick (38m 08s):

It can be a very rewarding process, both in the output of what you achieve and also financially, you know, you can set up projects that last a very long time, have a great impact and a great revenue generating models and have, and are good all round, but it's not a, it's not a gold rush, you know the best projects take time, you know, and they take time because it takes time to prove credibility. So yeah, I think if, if you're saying to me, what do we need to do, we need to keep at it. We need to scale it and we need to be patient with it, but it is all of our problem. You know, we all created this, you know, this issue of our planet that we live in. I think Larry Fink was it Dave even said, you know, it is not about tackling you know, climate change it's about tackling our existence because it's not climate changes, is about our, our activity and our existence on this planet. You know, that's what it's about. It's about survival.

David Greely (39m 03s):

Thanks again, to Phil Hardwick from Base Carbon, we hope you enjoyed the episode. Join us next week with Mark Lewis, Head of Climate Research at Andurand Capital Management, as we discuss what's gone right, what's gone wrong and what we can learn from one of the world's leading compliance carbon markets, the European Union's emissions trading system.

Announcer (39m 29s):

That concludes this week's episode of Smarter Markets by Abaxx. For episode transcripts and additional episode information, including research editorial and video content, please visit smartermarkets.media. Smarter Markets is 100% listener-driven. So please help more people discover the podcast by leaving a review on Apple Podcast, Spotify, YouTube, or your favorite podcast platform. Smarter Markets is presented for informational and entertainment purposes only. The information presented on Smarter Markets should not be construed as investment advice. Always consult a licensed investment professional before making investment decisions. The views and opinions expressed on Smarter Markets are those of the participants and do not necessarily reflect those of the show's hosts or Producer Smarter Markets, its hosts, guests, employees, and Producer Abaxx Technologies shall not be held liable for losses resulting from investment decisions based on informational viewpoints presented on Smarter Markets. Thank you for listening and please join us again next week.