



Stanford eCorner

Opportunities in Carbon Markets

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Cap-and-trade carbon markets continue to gain traction, but how do you monetize something you can't see and that has never been valued? Conservation International Executive VP Jennifer Morris sees interesting opportunities in the area of forest carbons, which are emissions released from deforestation. However, according to Morris, serious challenges to carbon markets include the lack of a global market framework, the thorny issue of carbon tenure rights, and the large amount of capital required to engage the issue.



Transcript

I wanted to talk a little bit about carbon, I'm sure many of you are familiar with the carbon market, has a lot of press here in California in particular. But I want to show you the statistics because it relates directly to the development of an area called forest carbon. So in terms of our global emissions, many people don't know this, but deforestation, actually when the trees are cut and carbon is released into the atmosphere, the annual emissions from deforestation alone is more than two times the total emissions from all cars, trucks, planes combined. So just think about around the world. That's almost 16% of total emissions. All around the world, in places, in particular like Indonesia and Brazil which represents the majority emissions from deforestation. In fact, Indonesia alone, 80% of their emissions are from deforestation, only from deforestation. So imagine that the magnitude of this problem continues to be incredibly significant. However, there are some interesting new opportunities in terms of markets. And the area that CI is particularly engaged with is an area called forest carbon.

So how do we monetize, again thinking about new markets, how do we monetize something that we can't see, something that has never tried to be valued before. How can we monetize this? There's a whole area, a new area, of development called forest carbon. It's very much in the venture space but there is some very exciting opportunities here. Right now, you look at the whole carbon market. So this is the market that trades what are called CDN's or verified emissions reductions which is under Kyoto Protocol. It's about a \$15 billion market. Out of that entire piece, less than 1% is related to forest carbon or land use. So this is the situation today. Still a very small piece of the pie and there are many reasons for that which I'll explain. But what we want to see in the future, if you look at the market projections, up to 2020, it's a \$150 billion in projected size of the carbon market.

OK, so the traditional carbon market in terms of trade is basically a, let's say a factory in China or India, switches its technology to lower carbon technology, there's a credit that's created from doing that and under a patent trade system, there can be buying and selling between companies for those that have more than they need to those that have less a need to buy a carbon on the market. So right now, if you're thinking into the future by 2020, \$150 billion is the pie. And with some changes and some entrepreneurial thought in this space, we're hoping that it can get up to \$30 billion. That's the potential of the trade for forest. But there are some challenges and some opportunities. So the challenges are, that apparently, there's no global, regulatory framework for forest carbon or what we call reduced emissions from deforestation degradation or REDD. Kyoto hasn't approved it yet. So this regulation is not confirmed in the market place. However, we do have a shining light and example, subnational, in the California case of a cut and trade system that was passed. As you probably may all be familiar with AB 32 as passed.

So allowing utility companies, other companies, to try to cut their emissions as much as they can and that which can't. They can't reach the goals that they're trying to achieve, they can actually trade purchased carbon to achieve their emissions reduction goals. For the first time ever, this AB 32 allows for carbon offsets. Carbon offsets from forests, so forest carbon offsets. And this is the first time we can have a regulatory market for forest carbon which is incredibly exciting. So the market potential is a billion dollars. However, there are some serious challenges with trying to monetize this asset. And I wanted to bring this up to you today because all of you in this room have the potential to be incredible entrepreneurs and help us think through these challenges and really work it to monetize this critical asset. One issue is, of course, regulation. We need to go beyond California to really have a huge market for this.

So we need an international regulatory framework that will allow for forest carbon offsets or there won't be the huge incentive for companies to use forest carbon as a credible mechanism for offsetting their emissions. Carbon tenure. So most of you probably know that land tenure in many countries is very different from United States where land tenure, rights of land, ownership of land is often unclear. Well, the same goes by extension to carbon. We don't know who owns the land. We often don't know who owns the carbon. It's very difficult to monetize an asset if you don't have an owner or the ownership is a little bit unclear, very unclear in many cases. So this has been a huge challenge. How do you establish carbon tenure in these projects? Who owns the carbon? Addition, financing. The financial flows from forest carbon are very lumpy.

You need a lot of money upfront to actually get the project up and going. And once you have that finance and can actually monetize the asset then it becomes a little bit easier. But start-up finance has been a critical challenge for a lot of these projects. But there are some entrepreneurs in this space. Companies like Disney, Walt Disney Company. So Walt Disney is a corporate partner of Conservation International and they came to us and made a corporate commitment a few years ago saying, "We want to get to zero waste and zero emissions. We want to stop emitting as much as we can and have zero net carbon emissions." For any of you who have been to a Disney Park, you can understand how challenging that would be in terms of all the products and services and mouseketeer hats and castles and everything that Disney produces that creates a lot of carbon. So they realize that they need to offset their carbon and had come to us and said, "Can we work on a forest carbon offset program with you?" We understand that currently we can't trade this credit. But again, Disney being an entrepreneur and a first mover company had said that, "In the event that we may be forced to regulate, we want to participate in the voluntary market space, forest carbon market space." So we said, "OK, we'll work with you on that." We're working with them on developing two projects. One in Peru and one in the Democratic Republic of Congo.

Not so easy places, especially in Democratic Republic of Congo where land tenure and carbon tenure are very challenging to establish. And this isn't just at DRC, this is in Eastern DRC. So if you know anything about the history of eastern DRC, history and present, there's a lot of conflict in that region. But we like challenges. So we are now working with Disney on helping them to monetize 900,000 tons of carbon that they can then claim only as a voluntary credit right now. So this was very exciting because it was the largest forest carbon partnership deal that's ever been done with \$7 million, 900,000 tons which we will deliver to them in 2014 working with our partners and communities on the ground. So there is hope. We need entrepreneurs in this space. We need first movers companies who will recognize that yes, okay, it's not regulated yet but we can use forest carbon to trade, but it could be in the future. And besides, it's just a really good thing to do.

But it's not just about CSR. This is really beyond philanthropy because Disney realizes this is good for its business.