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Credit: Jeff Hutchens/Getty

Biomass Less Challenging to Verify in Carbon Dioxide Removal

By Mark Fogarty

Monitoring, reporting and verification (MRV) of carbon removal may be easier in biomass than in other areas, attendees of a recent AirMiners biomass MRV webinar heard.

Tribal Carbon Solutions has been reporting on the ongoing AirMiners MRV series as verification is one of the key issues in carbon removal. This is the fourth in our series.

Panelists at the event included Maddie Hall, CEO, Living Carbon; Priya Bhullar and Freddie Catlow, Co-Founders, Planboo; Carlos Silva, Science Team Lead, Pachama; and Monica Larrazabal, MIT Sloan School (moderator).

"I think we're at a very fortunate CDR space in biochar," said Catlow.

That's because "It's very much a physical asset that you can see and you can weigh and you can measure the volume of it, which then makes it a little bit more easy to measure. And for people to understand, it's very tangible, right? It's very real and easy for people to evidence."

The tangibility of biomass and biochar are a big advantage.

"When it goes to actually gathering this information you can take biomass and you can record that and you can walk around the field and you can plot out how many trees or tons of cinnamon sticks are going to be harvested off this field."

Working in the tropics with its abundant biomass and large landowners is helpful, said Catlow.

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Freddie Catlow is co-founder of Planboo, a sustaintech company that rapidly captures CO2 from the atmosphere with bamboo. Credit: Sting

"They have 25-year cycles for their agricultural projects. And so, they know that over every year they're harvesting five tons of cinnamon sticks, for example, from one hectare of cinnamon. By working very closely with these projects, we can map onto their process, and then we have evidence to show that this amount of biomass is coming from here when it lands in a kiln for biochar pyrolysis," he said.

Catlow continued "We've developed a two-step independent verification process so that we have a smartphone application which makes it easier for the farmer or for the biochar producer to engage with an independent control device that sits within the kiln and that records biochar production so that we can sit back and we can see the evidence and the information that's provided by the biochar producer and the under the independent device, these two match up. So then we have certification biochar is actually being produced within this project."

"And then," he said, "when it's taken from the biochar kiln and it's mixed with compost this carbon is a great asset for the planet. It's a great ingredient for soil and it's a great ingredient for the plants and for food."

The carbon "can be mixed with compost and organic fertilizers, so when it goes into the soil, it's giving the most benefit. And this is evidenced as well through smartphone devices, photographs, etc. So, people can really see that there's a tangible amount of carbon removal taking place."

This is a good thing to have for third-party verification, Catlow proposed.

"The buyers of the carbon credit can really see and visualize this carbon removal and this biochar has actually gone somewhere in the world, which then makes it easier as well for the third-party verification. They can go and can check in the fields."

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