FCWG 2020-21 Learning Exchange Series: Mike Smith (RenewWest) and Chandler Van Voorhis (GreenTrees) Q+A

Pricing, Markets, and Uncertainty

Can you provide any details on the average cost of a reforestation project and the average credit issuance per project?
C: It depends on acres and yield per acre. Our experience is $250,000+ cost all in cost of verification.
M: I'd also add that it depends upon what is included as the project boundary, geography, and registry. Certain landscapes can be very expensive -$1,000+/acre, while others can be more affordable, depending upon geography, seedling supply, nursery capacity, etc.

Are there opportunities for new technologies to reduce verification costs?
C: Yes. There are promising efforts underway with remote sensing, AI, machine learning, blockchain. However, they are not verification ready. Hopefully, in the near future.
M: The limitation of reducing verifications costs, in my opinion, isn't a limit in technology, but a limit of regulation. I think that the registries could really reduce the barrier to entry for projects if they found faster, most cost-effective methods for verification. There's a minor bottleneck in verification that should be dealt with.

Can you speak more to pricing dynamics in voluntary credit markets? Since landowners don't set their own prices, how are the prices determined and what are the primary factors influencing those decisions?
C: Our economics are aligned to the landowners. So we work to get the best deal we can get. We spend a lot time educating the market on why Reforestation costs more and demands more in price.
M: I'd echo what Chandler said, but also say that the voluntary market is *voluntary*, so market participants have generally one reason for being there: marketing & branding. Industrial gas destruction in China isn't very attractive, from a marketing standpoint. Domestic reforestation is. Buyers want to tell stories about how their customers could go visit a forest they planted, not about how hydrofluorocarbons were destroyed if they'd look at this accounting report. They're all important, from a climate perspective, but the marketing is different.

Do you know of funding opportunities for local NGOs looking to engage in carbon projects (e.g., for a mangrove reforestation project)?
C: NFWF, Shell, Entergy have been some in the past that have engaged in this realm
M: Carbon markets and their methodologies aren't the easiest thing to learn about. I'd recommend engaging an offset developer that is familiar with the market first. Most of the funders in the space aren't interested in project development, but in funding ready projects. You'll want to know what you have to offer first.

Is uncertainty (e.g., in the value of future carbon credits or in the amount of additional carbon any project will sequester) a deterrent for getting more landowners involved? Related, are there better ways to share risk? Are there ways to minimize risk (e.g., a way to minimize price volatility in carbon markets?)
C: Carbon is difficult for landowners. You can' t touch it. It requires specific expertise. What we did was structure long-term offtake agreements to take the uncertainty out initially.
M: There's increasing interest in landowners to work in the space, but to Chandler's point, they need to have a simple, clear structure to participate.

Projects

Is soil carbon included in your projects? If not, do you envision that it might be included in the future? What are the barriers to incorporating soil carbon and how might we overcome them?

C: For ACR, you can count soil carbon pools for the first 20 years. Soil carbon pools are important in the earlier years while the trees lay down their roots and start to grow the live above ground volume.
M: Soil carbon can be included in forestry projects (optional pool), but a lot of the attention on soil carbon recently has been in agriculture. In some cases, like avoided conversion of grassland, the methodologies exist. In others, like with regenerative agriculture using the CSU COMET standard, those methodologies don't yet exist on the major registries. Upstarts like NORI are developing their own standard and I think there's promise there.

Do see a way for biochar to fit in?

C: Potentially yes. Biochar might be a way to enhance both soil as well as increase live above ground yield per acre per year.
M: Forest management frequently requires thinning. What we do with that material matters, from a climate standpoint. Biochar, in order to be a reliable carbon storage means, needs to convert into recalcitrant carbon. If left labile, there's not much benefit. My understanding of biochar is that this depends, in large part, on how the pyrolytic reaction is tuned: towards biofuels or towards biochar. Either way, a potential for carbon storage. Alternatively, other long-lived wood products like CLT might be a great way to store carbon from the atmosphere while also achieving forest health outcomes.

Could a carbon market provide a premium for planting locally appropriate biodiversity (phenotypes and genotypes for locality/origin) as well as for species mixes that are more diverse than timber plantations? (e.g., more credits per carbon stored)

C: We do not plant timber plantations. We grow a diverse mix bottomland hardwood forests. We work with 25 different hardwood species.

M: There are market incentives for diversity (Verra's CCB), but generally it also only worth planting what is native to area. There's a lot more to forests than just trees, though, and there isn't much incentive currently around that. I think that this is a space for philanthropic capital to partner up and magnify outcomes. There's a false dichotomy expecting it to either be one or the other for a solution, when in many cases, it could be both.

Supply Chain

What is the effect of natural hardwood regeneration in the South at reducing the 'crises' of limited seedling production from tree nurseries?

C: Good question. Probably best aimed at a hardwood nursery company.

Clarification

For Mike: Could you please clarify USFS constraint to carbon market participation vis-a-vis OGC opinion?
M: I'd refer you to the US Forest Service for more detail, but as I understand it, the Forest Service feels that even in the case of reforestation where forests are improved, that the sale of offsets is the transfer of a property right for which the U.S. Forest Service doesn't have congressional authorization. I can appreciate that decision, though I think that there's room to rethink it. There is a significant amount of money interested in climate and forests and their primary interest is in public lands. Simultaneously, there are millions of acres of National Forest System land in need of reforestation, even before this fire year. We need to find a way to remove roadblocks.