FCWG 2018-19 Learning Exchange Series: Dylan Jenkins, Finite Carbon Q+A

How long do inventories take and can landowners that already have inventories use some of that data?

After inventory design and contracting, forest carbon inventories usually take ~3-6+ weeks to complete depending on project size, geography, and configuration (e.g., number of parcels, road access, topography, etc.). Existing timber inventories are critical for evaluating potential project performance but are not useful for carbon project development due to the exacting offset protocol requirements for carbon inventories including minimum statistical accuracy.

To what extent are landowners liable for carbon stock losses due to natural disturbances such as fire, hurricane, etc.?

Whether voluntary or compliance, all forest offset protocols employ an approach to insuring landowners from liability against "unintended reversals" or force majeure events that result in the involuntary loss of carbon stocks. As part of the project development process, forest offset projects undergo a risk analysis for the occurrence of natural events that may result in carbon volume loss and then the gross project offsets are discounted by the appropriate risk percentage; for CA offset projects this is usually ~19%+/-. Analogous to an insurance premium, all forest offset projects participating in the CA program contribute the appropriate risk premium offsets into a pooled risk buffer account. If an event occurs which decreases project carbon stocks below the last reported onsite carbon stock volume, then a reversal has occurred, and the landowner may make a claim against the risk buffer pool to make their project whole. While there is no liability to the landowner for an unintended reversal, there is a cost to make a claim against the risk buffer pool which includes an update of project accounting (via inventory of disturbed acres) and re-verification of carbon stocks.

How does participation in an offset program affect a landowner's ability to sell their land? Does the commitment to maintain carbon stocks become like a lien on the land?

Carbon projects are both an asset (new revenue stream) and liability (costs of ongoing project maintenance and operations) for forest landowners. While a CA forest offset project life is 100 years of ongoing monitoring, reporting, and verification (MRV), a forest offset project is not permanent like a conservation easement and a project owner may voluntarily terminate the project, albeit at significant financial penalty for early termination. To date, we know of at least five forest offset projects that have now transferred ownership and as 6 million acres of US timberland are now under development we expect to see many more forestland transactions with offset projects occur in the future. Similar to landowners' experience with working forest conservation easements and third-party certification over the past 20+ years, many larger landowners, especially TIMOs, are now gaining experience with evaluating carbon projects in their acquisition strategies, cash flow analyses, and forest operations. Nevertheless, the appraisal industry is still very much at the beginning of formulating their understanding and approach to quantifying the financial impact both positive and negative, to fair market value for timberlands with offset projects.

Can you compare how much a forest owner would make if they had a carbon project versus harvesting the timber?

With respect to managing for carbon volume, California forest offset projects are not an either/or proposition – nearly all forest offset projects registered to date are actively managed for a combination of conventional forest products and carbon offsets. Due to the way California defines additionality (landowners must at least maintain or increase their onsite carbon stocks relative to a common practice baseline), nearly all projects that have been registered are maintaining their historic approaches to relatively conservative management versus activity switching to curtailing active management to generate carbon revenue. In this regard, carbon revenue is almost always an *additional versus alternative* revenue stream. This said, in some regions on a ton-for-ton basis, carbon revenue is now on par and can exceed conventional revenue for lower value harvested wood products which provides landowners in these regions/markets an opportunity to financially optimize carbon volume allocation among conventional forest products and offsets both spatially and temporally.

For the 100-year requirement, does that mean that as the project moves forward, new offsets must retain that carbon storage for 100 years from that point? So, credits from 2030 must be assured until 3030? Or is it from the beginning of the project?

The commitment is for a rolling 100-year period. The project life and MRV requirement is for 100 years after the last offset has been issued to the project account.

For project developers that are compensated by landowners with a fractional share of the CCOs generated at project registration, what is a typical reasonable fractional share?

Development services compensation depends greatly on project size, performance, complexity, and risk sharing between the landowner, developer, and buyer and thus there are many ways offset project commercial terms may be structured. Unsurprisingly, larger projects producing higher offset volumes command more favorable commercial terms. With the most basic structure, if the developer/buyer incurs all project development costs and risk through successful project registration, then offset/revenue percentage success-based fee for full turn-key project development services across the industry historically ranges in the low/mid-teens percent (e.g., for very large projects with millions of tons at initial issuance) to upper-teens/low to mid-twenties percent (e.g., for smaller projects with less than 1M+/- tons at initial issuance). Like any commodity and services provision contract, pricing and terms are responsive to the specifics of each project in the context of market conditions at the time a project is contracted. Further, there are material differences in experience and competency among forest offset project developers. Minimum landowner due diligence in selecting a project development partner should include speaking with client references, evaluating the developer's team and relevant project experience, and considering the firm's reputation within the offset industry especially among offset verifiers and buyers, and developer responsiveness and transparency to answering questions during the due diligence period.

Can you elaborate or re-explain the even-aged harvest requirement of 40 acres with max <50 basal area?

Please refer to Section 3.1 of the compliance offset protocol:

https://www.arb.ca.gov/cc/capandtrade/protocols/usforest/forestprotocol2015.pdf

In reference to geopolitical boundaries, since California is teamed with Quebec's cap and trade, are voluntary offsets from projects in Quebec eligible?

The Western Climate Initiative which currently includes California and Quebec is a compliance offset program, therefore voluntary offsets are not eligible in the system. Compliance offsets generated from Quebec-based projects may be used by California entities for their CA emissions obligations and vice versa. However, Quebec does not have a forest offset protocol, therefore there is no way for Quebec landowners to participate in the WCI offset program. Further, to date the province has only generated 700k offsets total from all projects versus 144M offsets from California. Thus, Quebec is presently a net importer of US compliance offsets for its cap-and-trade program.

Are any government lands getting into carbon markets? (Federal, state, or municipal lands)

Federal lands are not eligible for participation in the CA program. While non-federal lands are eligible, they must adhere to a completely different approach to additionality (a comparison of carbon stocks between forest management planning periods) versus private lands (common practice comparison approach of property onsite carbon stocks to regional stocking average). Thus, public lands generally yield very few offsets and are therefore not financially feasible for development under the CA program. Voluntary offset programs are generally more favorable in the treatment of public lands.

Why is Hawaii not included in today's analysis?

The common practice values which underpin CA forest offset project baselines are established using the USFS Forest Inventory and Analysis (FIA) dataset. Until recently, statewide FIA data was lacking for Hawai'i. Our understanding is that FIA statewide data may soon be available for Hawai'i and that similar to coastal Alaska in 2015, Hawai'i may be brought into the offset program in a future compliance program update.

Can you talk more about CORSIA and the voluntary market? When do you think there will be more clarity on what they require?

We expect more clarity toward the end of 2019. Please see the ICAO/CORSIA website (https://www.icao.int/environmental-protection/CORSIA/Pages/default.aspx) for background and tutorials on program development and timeline.