

Forest Carbon Aggregation

Looking back, looking forward

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Outline

- 1. Introduction to New Forests
- 2. Aggregation: why bother?
- 3. New Forests' experience to date
- 4. Two core models for carbon aggregation
- 5. Suggestions for the path forward





About New Forests



Global real asset manager. New Forests manages over USD \$1 billion in capital for investments in sustainable timber and associated environmental markets, such as carbon, biodiversity and water. Headquartered in Sydney, with offices in San Francisco and Singapore.



Forest carbon offset expertise. New Forests has participated as a stakeholder and investor in the development and implementation of forest carbon offset markets and cap and trade systems in multiple countries for over six years.

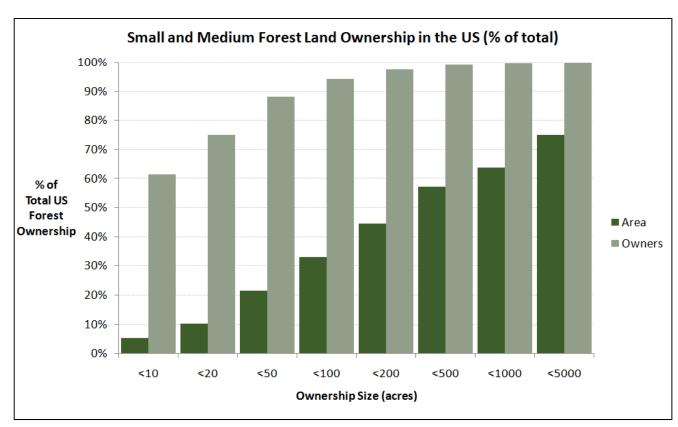


Projects developed for the California market. We have invested in forest carbon offset projects for the California market through two fund vehicles and are developing projects on over 71,000 acres.



Aggregation: why bother?

- Western Climate Initiative policy.
- 75% of U.S. private forestland is in small holdings of <5,000 acres.
- It's where the carbon is.





New Forests & Forest Carbon Aggregation

- CAR aggregation stakeholder committee (2010)
- Forest Carbon Partners, L.P.
 - □ Launched in 2011
 - Finances and develops projects with family forest owners and Native American tribes
 - 11,500 acres of projects under development at present, expect 17,000 this quarter
 - Will aggregate projects if aggregation rules adopted by ARB



Aggregation Value Proposition

For landowners

 Project finance, project management, credit sales management, market access (high volume sales), potentially reduced costs via CAR aggregation rules

For compliance buyers

- □ Portfolio diversification reduced delivery risk
- Scalable supply relationship
- One counterparty, one point of sale
- Charismatic carbon



Aggregation Challenges

- Key challenges in aggregating forest projects:
 - Skepticism of landowners in early stage of system
 - Origination costs
 - Credit yield estimation in low-data environment
 - Low percentage of projects pencil out at current costs and expected near-term carbon prices
 - Inventory and verification costs are key
 - Managing credit invalidation risk



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Models of Aggregation

- 1. Project-centric: aggregator as service provider
 - Example: CAR forest carbon aggregation rules
 - Baseline, additionality, MRV, permanence assessed and enforced at project level
 - Aggregation reduces MRV costs quantification and verification
- 2. Aggregate-centric: aggregator as project owner
 - Permanence, MRV, and potentially baseline and additionality assessed at aggregate level



Two Approaches to the Key Aggregation Issues

	#1: Project-centric	#2: Aggregate-centric
Temporal dispersion	Feasible	Feasible
Geographical dispersion	Feasible	Feasible
Additionality	Measured at project level	Measured at project or aggregate level
Risk allocation	Project-focused	Aggregator-focused
Quantification	Project-focused with cost savings from aggregation	Either project or aggregate- focused
MRV	Project-focused, with cost savings from aggregation	Aggregate-focused
Permanence	Project (default liability)	Aggregator (default liability)
Invalidation liability	Project (default liability)	Aggregator (default liability)



Forest Carbon Aggregation in Compliance Markets

- Permanence and invalidation liability are <u>key</u>.
 - Integrity of the cap requires strong assurance that
 MRV is accurate and permanence is maintained.
- Market participants prefer aggregation model #2:
 - Permanence and invalidation liability most efficiently managed by aggregator.
 - Landowners can more easily enter and exit.
 - Aggregator can more easily manage invalidation liability with large portfolio of offset instruments.



Forest Carbon Aggregation in Compliance Markets

- Regulator concerns about aggregation model #2 in sequestration project context:
 - Compliance market regulators have historically expressed some concern about default assignment of permanence and credit invalidation liability to a project developer or corporate aggregation entity.

How do we carefully structure true project aggregation in compliance markets to adequately ensure permanence and credit quality?



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A path forward with two tracks

Both models of aggregation should be available in compliance markets.

- Track #1. Compliance market adoption of aggregation model #1.
 - □ e.g. CAR forest carbon aggregation rules
- Track #2. Laying the foundation to support compliance market adoption of aggregation model #2.



A path forward with two tracks

- One approach to enabling aggregation model #2 in the compliance market sequestration project context:
 - Legislative adoption of a terrestrial carbon property right at the state level (technically: a new type of negative easement in gross)
 - Require aggregators to hold such a carbon property right on all projects
 - In the event of aggregator bankruptcy or dissolution, require such carbon property rights to escheat to the state.
- Aggregator thereby becomes project owner after acquiring rights from landowner.
- Strong assurance of recovery in the event of intentional reversal of obligated carbon or credit invalidation.



Summary

- New Forests is actively engaged in financing and aggregating forest carbon projects for the California compliance market.
- Aggregation is critical to organizing adequate offset supply and in the forest carbon context leads to strong environmental and social co-benefits.
- Aggregation delivers significant economic value to landowners and to compliance offset purchasers.
- There are two core models of carbon project aggregation: projectcentric and aggregator-centric.
- Many market participants prefer an aggregator-centric model.
- Recommendation: compliance markets enable both aggregation models for sequestration carbon projects. An aggregator-centric model may be facilitated by the legislative adoption of a forest carbon property right.





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