

CARBON FOR SALE: LEGAL ISSUES WITH CARBON FARMING IN THE UNITED STATES

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Abstract

Desires to accomplish net-zero carbon emissions are bringing carbon farming opportunities to farmers in the United States. But carbon markets and carbon agreements raise several important legal issues. This paper discusses three relevant concerns: uncertainty over the legal nature of carbon credits, incompatibility between farming practices and additionality and permanence components of carbon credits, and the lack of governance and infrastructure in the carbon market. Two critical questions arise: whether carbon credits are the appropriate mechanism for incentivizing carbon farming and whether governmental involvement is necessary to bring order to the carbon market.

Keywords – carbon farming; carbon credits; carbon agreements; climate change; law; policy

Introduction

The United States and other countries across the world have witnessed a surge in “carbon neutral” and “net zero emission” pledges from governments and major corporations in the past few years. Over one-fifth of the largest corporations in the world now have net zero emission commitments, covering 68% of the global economy (Black et al, 2021). Private companies may attempt to meet their net zero emission goals by reducing emissions within their own value chains, but enabling carbon emission reductions beyond their value chains will also play an important role in achieving carbon neutrality (Cummins, 2022). A carbon credit market can allow a company to offset its emissions with carbon savings generated by others (Lockhart et al, 2022). This market approach can achieve not only corporate net zero pledges but can also provide necessary financing for farmers to engage in “carbon farming” by implementing farm conservation practices that capture and store

atmospheric carbon in the soil (Marks, 2020). Voluntary carbon markets offer a private sector approach to financing the implementation of carbon farming practices within the agriculture sector.

The voluntary private carbon farming market is not without its legal challenges in the United States, however. While the concepts of emissions trading and carbon credits have existed for several decades (Newell, Pizer and Raimi, 2012), carbon farming and the sale of carbon credits in a voluntary private market is still new to agriculture. Both the purchasers of carbon credits and the farmers who generate carbon credits may feel they are traversing an unfamiliar and evolving ‘Wild West’ landscape. We identify and review three issues that pose significant legal challenges to the carbon farming landscape.

1. Defining the legal nature of a carbon credit

A carbon credit is a tradable unit widely recognized as one metric ton of carbon dioxide reduced or removed from the atmosphere (Reichle, 2020). But its classification for legal purposes is unclear. Is it real or personal property, tangible or intangible? Does a carbon credit place a legal encumbrance on land, and one that “runs with the land?” The uncertainty of its legal nature will lead to conflicts over who owns a carbon credit, how to track and protect it, and how to tax it.

In the context of agriculture, farming practices can generate a carbon credit in many ways, such as not tilling the soil, planting a cover crop, rotating crops, establishing buffer strips, planting grasslands. The connection between farm practices and farmland, and the potential result that the soil will sequester atmospheric carbon dioxide, suggest a conclusion that the credit is a real property interest. A federal court in Louisiana reached this conclusion over a decade ago, stating in *Roseland Plantation LLC v. United States Fish and Wildlife Service* (2006 U.S. Dist. LEXIS 29334) that the “right to report, transfer, or sell carbon credits is part of the bundle of rights associated with property ownership.”

To the contrary, state law can clarify that a carbon credit is not a property right in certain situations. California did so in its early cap and trade program. Although a regulatory approach was involved, the law provided that a carbon offset credit was a “compliance instrument” that did not constitute “property or a property right.”

Federal law is silent on the issue of how to address the taxation of income generated by carbon credits, another issue raised by the lack of certainty over the legal nature of the credit. Private letter rulings by the Internal Revenue Service (IRS) have changed course over

time, beginning with one determination in 2011 that the sale of a carbon credit in a compliance situation represented the sale of an interest in real property (IRS, 2011). The IRS reconsidered the issue in 2017 and determined that the agreement to restrictions that would generate a credit is a taxable transaction and subsequent sales of the units amount to a sale of an intangible asset (IRS, 2017).

Of interest from the latter IRS ruling is that the agency compared carbon credit generation to a landowner agreeing to a restriction similar to granting an easement, supporting an argument that a carbon credit amounts to an encumbrance upon the land. Yet there are currently no legal requirements for creating or documenting a carbon credit. Typically, a farmer signs a carbon agreement with a broker, and only those two parties have a record of the agreement. The arrangement does not utilize historical property instruments such as easements, deed restrictions, or leases, and there are no legal execution or recording formalities for tracking the agreement. Janzen (2022) observes that the situation amounts to a “shunning” of historical real estate laws that could create issues with enforcement and for future land purchasers and other parties holding legal interests in the land where the carbon credit is to be generated.

2. Additionality, permanence, and farming practices

A common characteristic of carbon offset programs is an additionality requirement. A carbon emission reduction is “additional” if it would not have occurred in the absence of a carbon market and it is not additional if it would have happened anyway, whether for legal, regulatory, or voluntary reasons. Some argue that additionality is essential to the quality of a carbon offset credit and that a buyer who pays for a credit that is not additional is worsening rather than improving emissions (Broekhoff et al, 2019). A carbon credit agreement is likely to include an additionality component, paying a farmer only for credits generated by new practices that the farmer was not doing prior to the agreement.

A second common characteristic of carbon credits is “permanence.” Permanence relates to the duration of the carbon storage, with many standards requiring a 100-year duration to achieve permanence (Croft, 2021). To achieve permanence, a carbon agreement may require that a carbon sequestering practice remain in place over a long period of time and that steps are taken to reduce the risk of reversal of the carbon reduction (Hall, 2021).

Both additionality and permanence are problematic provisions in a carbon farming agreement, raising issues of compliance, enforceability, and equity. Additionality standards

vary from agreement to agreement, with some programs allowing conservation practices in the past to count toward credit generation and some permitting only new practices instituted after the agreement. From a legal perspective, the varying nature of additionality provisions, as well as the “intent” element underlying additionality, may expose a farmer to the risk of contract breach and non-payment. How companies will enforce the additionality requirement is as of yet unknown, but third party verification practices may play an important role in enforcement. From a policy perspective, some allege that additionality penalizes farmers who have a history of engaging in conservation practices while rewarding those who have not, raising issues of equity (Janzen, 2021).

Permanence requirements also raise issues of enforcement and highlight the lack of legal recording instruments that can provide notice of the carbon agreement and the generation of carbon credits on a parcel of land. Considering that the permanence requirement could outlive both the carbon agreement and the farmer who entered into the agreement, a relevant question is whether a broker would seek a remedy against a future landowner who violates permanence by reversing a carbon credit storage practice. Some carbon credit brokers “buffer” against reversals by pooling credits and holding credits back for use in the event of a permanence problem, but there could be consequences from permanence losses that are not buffered and questions of who is liable for the loss (Jeffrey et al, 2020). Without legal tracking procedures that documents the past creation of a carbon credit activity on a parcel of land, interfering with permanence appears a real risk. But as with additionality, whether there will be enforcement and liability for violating contractual permanence provisions is a current unknown. Even so, farmers in a recent survey cited legal liability associated with contract noncompliance as an impediment to participation in carbon markets (Thompson et al, 2021).

Additionality and permanence raise the need to compare farming practices with other types of practices that generate carbon credits. In comparison with planting trees that remain in place once planted, for example, farming practices are annual and rotational. Additionality and permanence fail to recognize the need to make annual and rotating decisions in the farming context, suggesting that the carbon credit may not be the appropriate tool for encouraging carbon farming. Other approaches, such as the current Biden administration’s proposal to pay a flat per acre amount for planting cover crops can also accomplish carbon emission reductions without conflicting with the additionality and permanence requirements of carbon credits. For example, Marks (2020) advocates a Carbon Farming Certification as a

base for reducing carbon dioxide emissions while providing multiple financial opportunities for farmers through increase sales and investment, access to immediate and long-term financing, and carbon credits through public private partnerships that that involve perpetual easements.

3. Lack of infrastructure in the Wild West

While “it depends” is a common answer to legal questions, it is currently far too common in the arena of carbon farming and carbon agreements. Much of the uncertainty and “it depends” responses are not surprising, the result of a currently developing market driven by private companies. But lacking governance and consistent standards, the carbon credit market compares to the ‘Wild West’ (Boone, 2021). Legal risk heightens in such an environment.

Several characteristics of the current market may contribute to the Wild West setting. The above issues of uncertainty over the legal nature of a carbon credit and discomfort between additionality and permanence in the farming context present opportunities for fraud and abuse. There is no process or mechanism to document the use or retirement of a carbon credit, also raising prospects of fraud. Lack of consistent standards for measurement, reporting, and verification of carbon credits are a primary concern that brings uncertainty to the market (Oldfield et al, 2021). Although third party verifiers and verification standards are evolving, there remains need for standardized protocols across the market (Thompson et al, 2021). Price discovery is lacking, forcing farmers to make decisions without adequate information on the value of carbon credits. These factors may be responsible for a low two per cent participation rate by farmers in carbon programs (Mintert and Langemeier, 2021).

Is government involvement the answer to the governance issue? While there is little support for a compliance program and regulations to bring structure to the market, many look to the Growing Climate Solutions Act (Braun, et al 2021) as a solution. The legislation, currently before Congress, proposes to remove uncertainty and barriers to entry for farmers by setting guidelines for agricultural carbon credit markets and certifying assistance providers and verifiers. It would involve the United States Department of Agriculture (USDA) in creating protocols for calculating, sampling, accounting, verifying, and reporting methodologies, with the assistance of an advisory council. The USDA would also direct and audit the third party certification process and create a website to assist farmers as potential

market participants. While the Senate quickly passed the Growing Climate Solutions Act in June of 2021, the House of Representatives has yet to act on the proposal.

A second possibility for bringing order to the Wild West could come with resolving the legal nature of carbon agreements and establishing a property law framework for documenting the legal interests. But some argue that the system for recording property interests at the county level is a roadblock to using property law mechanisms for the carbon market (Janzen, 2022). Modernizing the system of establishing and recording property interests with cloud-based recording and GPS-based legal descriptions could remove those impediments. Governmental involvement on this issue could enhance legal certainty in a voluntary, private carbon market.

Conclusion

Carbon credits offer a new source of revenue for farmers. But uncertainty over the legal nature of carbon credits, discord between farming practices and requirements for additionality and permanence, and the lack of standardization and governance in the carbon market pose challenges for agriculture. These legal issues raise two important questions: whether the carbon credit is the appropriate mechanism for involving agriculture in carbon reduction goals, and whether governmental involvement and infrastructure could bring order to the Wild West of carbon markets. Consideration of these questions is critical to continued efforts to bring farmers into the carbon market.

References

- Black, R., Cullen, K., Fay, B., Hale, T., Lang, J., Mahmood, S., Smith, S.M. (2021). *Taking Stock: A Global Assessment of Net Zero Targets*, Energy & Climate Intelligence Unit and Oxford Net Zero. Available at: <https://eciu.net/analysis/reports/2021/taking-stock-assessment-net-zero-targets> (accessed 20 March 2022).
- Boone, D. (2021). *Carbon Markets in 'Wild West' Phase*. Farm Progress. Available at: <https://www.farmprogress.com/crops/carbon-markets-wild-west-phase> (accessed 20 March 2022).
- Braun, M., D. Stabenow, L. Graham, and S. Whitehouse. 2021. *Growing Climate Solutions Act of 2021*. Senate Bill S.1251. Available online at <https://www.congress.gov/bill/117th-congress/senate-bill/1251> (accessed 30 March 2022).
- Broekhoff, D., Gillenwater, M., Colbert-Sangree, T., and Cage, P. (2019). *Securing Climate Benefit: A Guide to Using Carbon Offsets*. Stockholm Environment Institute & Greenhouse Gas Management Institute. Available at offsetguide.org/pdf-download/ (accessed 16 February 2022).
- Croft, G., Hoover, K., Ramseur, J. and Stubbs, M. (2021). *Agriculture and Forestry Offsets in Carbon Markets: Background and Selected Issues*. Congressional Research Service, CRS R46956.
- Cummins, C. (2022). *Three Ways to Ensure Corporate Net-Zero Targets are Credible*, World Resources Institute Insights. Available at: <https://www.wri.org/insights/ways-companies-credible-net-zero-targets> (accessed 20 March 2022).
- Hall, P. (2021). *Considering Carbon Farming? Take Time to Understand Carbon Agreements*. Ohio State University. Available at: <https://farmoffice.osu.edu/blog/tue-08032021-126pm/considering-carbon-farming-take-time-understand-carbon-agreements> (accessed 30 March 2022).
- Janzen, T. (2021). *Rethinking Carbon's 'Additionalty' Requirement*. Janzen Ag Tech Blog, August 20, 2021. Available at: <https://www.aglaw.us/janzenaglaw/2021/8/20/rethinking-carbons-additionalty-requirement> (accessed 30 March 2022).
- Janzen, T. (2022). *Considering Carbon: Understanding the Legalities of Soil Carbon Sequestration Contracts*, National Agricultural Law Center. Available at: <https://nationalaglawcenter.org/webinars/carboncontracts/> (accessed 23 March 2022).

Jansen, T. (2022). *Are Antiquated Real Estate Laws Stopping Farmers from Fighting Climate Change?* American Bar Association. Available at: https://www.americanbar.org/groups/environment_energy_resources/publications/am/20220311-are-antiquated-real-estate-laws/ (accessed 20 March 2022).

Jeffrey, L., Hohne, N., Moiso, M., Day, T., and Lawless, B. (2020) Options for Supporting Carbon Dioxide Removal. New Climate Institute 219008. Available at: <https://newclimate.org/2020/07/28/options-for-supporting-carbon-dioxide-removal-discussion-paper> (accessed 20 March 2022).

Internal Revenue Service, (2011). *Private Letter Ruling 201123003*. United States Department of Treasury.

Internal Revenue Service, (2017). *Private Letter Ruling 201720008*. United States Department of Treasury.

Lal, R. (2004) *Soil Carbon Sequestration to Mitigate Climate Change*, *Geoderma* 123. Available at: www.sciencedirect.com (accessed 30 March 2022).

Lockhart, N., Crough, M., Coppens, D., Connolly, K. and Lawler, J. (2022). *The Opportunities and Risks of Carbon Credits on the Pathway to Net Zero*. Available at: <https://www.sidley.com/en/insights/publications/2022/03/the-opportunities-and-risks-of-carbon-credits-on-the-pathway-to-net-zero> (accessed 20 March 2022).

Marks, A. (2020). *(Carbon) Farming Our Way Out of Climate Change*. 97 *Denver Law Review* 497. Available at <https://scholar.law.colorado.edu/articles/1294> (accessed 20 March 2022).

Mintert, J. and Langemeier, M. (2021). Farmer Sentiment Weakens Amid Rising Concerns of a Cost-Price Squeeze. Purdue University. Available at: <https://ag.purdue.edu/commercialag/ageconomybarometer/farmer-sentiment-weakens-amid-rising-concerns-of-a-cost-price-squeeze/> (accessed 30 March 2022).

Newell, R., Pizer, W., and Raimi, D. (2012). *Carbon Markets: Past, Present, and Future*. Resources for the Future, RFF DP 12-51.

Oldfield, E., Eagle, A., Rubin, R., Rudek, J., Sanderman, J., and Gordon, D. (2021). *Agricultural Soil Carbon Credits: Making Sense of Protocols for Carbon Sequestration and Net Greenhouse Gas Removals*. Environmental Defense Fund. Available at: edf.org/sites/default/files/content/agricultural-soil-carbon-credits-protocolsynthesis.pdf (accessed 30 March 2022).

Richle, D. (2020). *Chapter 12- Carbon, Climate Change, and Public Policy*, The Global Carbon Cycle and Climate Change, p. 254. Amsterdam: Elsevier.

Thompson, N., Hughes, M., Nuworsu, E., Reeling, C., Armstrong, S., Mintert, J., Langemeier, M., DeLay, N., and Foster, K., (2021). *Opportunities and Challenges Associated With “Carbon Farming” for U.S. Row-Crop Producers*. Purdue University. Available at: <https://ag.purdue.edu/commercialag/home/resource/2021/06/opportunities-and-challenges-associated-with-carbon-farming-for-u-s-row-crop-producers/> (accessed 20 March 2022).