Greenwashing Big Ag

A bipartisan law claiming to tackle greenhouse gas emissions instead just helps the agriculture industry launder its reputation.

By Claire Kelloway

Late last year, Democratic and Republican lawmakers performed a kind of Washington magic trick. In this famously acrimonious time, a bipartisan group not only succeeded in passing a bill designed to take on greenhouse gas emissions in the agricultural industry, which is responsible for as much as a third of all global climate pollution, but did so while appearing to please almost everyone.

The law, the Growing Climate Solutions Act, passed as part of the big year-end government funding package. It was cosponsored by more than half the Senate and heralded by top Democratic and Republican leaders, including Agriculture Secretary Tom Vilsack and minority ranking member of the Senate Agriculture Committee John Boozman. It was also endorsed by more than 175 nonprofits, corporations, agricultural trade associations, and climate activist groups. "The inclusion of the *Growing Climate Solutions Act* in the omnibus is a tremendous bipartisan victory that will help combat climate change while rewarding farmers for their climate-smart practices," Jennifer Tyler of the Citizens' Climate Lobby, a grassroots advocacy group, said in a statement.

The legislation was built around a simple idea. The federal government would help facilitate private, voluntary, farm-based "carbon markets," wherein corporations, like Microsoft or Amazon, can purchase from farmers special credits, known as carbon offsets. In exchange, the farmers agree to keep carbon in the soil by, say, planting cover crops or improving cattle grazing methods. Big agricultural companies can also pay farmers within their own supply chains to store carbon in the soil, thus similarly claiming a special credit, known in that case as a carbon *in*set. Either way, big polluting corporations can purchase enough credits to claim that they are "carbon neutral" or a "green" company in commercials, on packaging, or in presentations to investors and board members. Meanwhile, farmers get to pocket a nice paycheck for doing the right thing. Democrats applauded the law for helping to deliver on Joe Biden's campaign promise to make agriculture "the first net-zero industry in America," while Republicans cheered it for helping farmers, corporations, and the environment while avoiding new regulations or government spending. A win, win, win.

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Unfortunately, it was too good to be true. These private, voluntary farm-based carbon markets don't actually do what they purport to do. They don't make big polluting corporations carbon neutral. They don't guarantee that anyone cuts their carbon emissions. And they don't generally encourage farmers to transform their operations to remove the most carbon. In fact, they don't even really function as markets at all. Within these shadowy, private exchanges, there is no agreed-upon standard for what counts as "sequestered carbon"; no central oversight mechanism; no cap on corporations' total allowable carbon use; and no penalty for cheating. Studies of other carbon markets reveal that the vast majority of offsets and insets fail to remove any additional carbon at all. The result is that these farm-based carbon exchanges function, essentially, as state-sanctioned greenwashing facilities.

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The Growing Climate Solutions Act didn't create these unregulated exchanges, but it did offer them the powerful endorsement of the U.S. government—and that's arguably worse than if Congress had done nothing at all. By lending credibility to these loosely organized programs, the government is helping to fuel already-surging corporate demand for carbon offsets—which may seem like a good thing, but remember, these voluntary, unregulated exchanges operate according to a kind of magical accounting, wherein the number of carbon offsets sold is often entirely unrelated to the amount of new carbon released into the atmosphere. By one estimate, in order to meet their net-zero goals, corporations will demand two to four times more land-based carbon removal offsets than the Earth's plants and soil could even plausibly supply.

It gets worse. With so many phony offsets being bought and sold, these government-endorsed private carbon exchanges may, perversely, result in an increase of total emissions, by allowing big polluters to continue business as usual and to push off demands from activist investors and the public to meaningfully change how they operate. Take, for example, the global meatpacking behemoth JBS. According to one study, JBS's annual climate footprint in 2021 was already larger than the entire nation of Italy's. And it's continuing to grow: The company plans to continue expanding its livestock production business, which generates 90 to 97 percent of its climate footprint. Yet, by leveraging precisely the kind of pay-for-carbon schemes endorsed by the Growing Climate Solutions Act, JBS will soon be able to label itself a "green" company. It claims that it will achieve "net-zero" carbon emissions in the next decade and a half. It might then be possible for a truly environmentally destructive company like JBS to be included in mutual funds sold to environmental, social, and governance (ESG) investors. It's a farce.

People on both sides of the ideological spectrum should find this state of affairs depressing because it didn't need to be this way. We already have effective, voluntary, and broadly respected policy solutions that address greenhouse emissions in the agricultural industry. At a bare minimum, Congress could have increased funding for the handful of federal farm programs *that already exist*, are already popular among actual farmers, and already support a greater variety of sustainable farming practices than carbon exchanges could ever reach. Dramatically reducing carbon emissions in the U.S. agriculture sector is within reach. But Washington's misguided enthusiasm for farm-based carbon credits leaves us even further away from that goal.

The federal government first experimented with allowing companies to trade in pollution credits in the 1980s, as part of an effort to phase out leaded gasoline. The idea was, in part, to make environmental cleanup more efficient, since it might cost less for a big polluter to pay someone else to reduce pollution elsewhere than to reduce their own emissions.

The 1990 Clean Air Act built on that theory by creating the first cap-and-trade market to break political gridlock around tackling acid rain. The government created a market for sulfur dioxide, the driver of acid rain, by setting a shrinking "cap" on the total amount of pollution allowed, then forced polluters to meet requirements by "trading" pollution allowances. Sulfur dioxide pollution decreased dramatically during the program—and lawmakers called the effort a huge success. A handful of retroactive studies have since shown that concurrent changes in the coal and rail industries, which made it much cheaper to ship low-sulfur coal from the western U.S. to power plants in the East, were likely responsible for a large part of the reduction in pollution. But at the very least, cap-and-trade was broadly seen as a politically palpable way to set some pollution limits that otherwise might not have been set at all, and the narrative about cap-and-trade's acid rain success has buoyed bipartisan support for pollution trading ever since.

Over the past three decades, cap-and-trade has expanded to carbon pollution, most notably in the European Union and the state of California. Pollution trading public policies have also given rise to private pollution offsetting projects. Some regulatory cap-and-trade regimes have started letting polluters buy offsets to comply with their shrinking emissions cap, which is where farm-based offsets could come into play. While regions with pollution-trading policies have generally lowered their greenhouse gas emissions, it's not always clear that cap-and-trade drove those reductions. The EU's cap-and-trade program appears to have played a moderate role in reducing greenhouse gas emissions, whereas California's program has had little to no effect. What's clear is that the structure and implementation of cap-and-trade programs matter a lot. The most effective cap-and-trade programs have the strictest rules and oversight, in which regulators set and enforce aggressively low caps, closely monitor emissions, and penalize noncompliance. The best programs also prevent pollution allowances from becoming too cheap or painless to get.

The private, voluntary farm-based carbon exchanges endorsed by the Growing Climate Solutions Act have none of these features. There is no "cap" on total pollution, no strict oversight body, no penalties for noncompliance, and these private farm-based carbon exchanges are entirely voluntary. Companies choose to buy agriculture carbon offsets, almost always for public relations reasons, then track and self-report their own progress using their own internal metrics—many of which employ an imaginative flourish. For instance, the U.S.-based lumber baron Weyerhaeuser has claimed a carbon reduction credit for cutting down trees—organisms that, if left living, remove carbon from the atmosphere. Weyerhaeuser's argument was that making a tree into, say, a bookcase, released less carbon than allowing that tree to burn or decompose. If companies fail to meet their own goals, according to their own, self-imposed rules, there's no financial or regulatory penalty. An analysis by Bain found that corporations miss their own sustainability targets 98 percent of the time.

Perhaps more fundamentally, these private exchanges do not function as "markets" in the first place because there's no shared understanding of what's being bought and sold. Here's how they work: A collection of private, unorganized, self-regulated companies sell carbon credits directly to corporate buyers. Most of the time, these carbon credit companies hire a third-party "verifier" to certify their claims of how much carbon has been sequestered per credit they're selling. But that process is dicey. There are no state, federal, or even industry-wide rules defining what counts as sequestered carbon. Instead, each third-party verifier creates its own protocols for measuring and evaluating sequestered carbon, then certifies claims based on those standards. The result is a Wild West of accounting. One 2021 evaluation found such wide variation between different companies' protocols that they "run the risk of creating credits that are not equivalent or even comparable." The farm *in*set landscape operates similarly, except that corporations claim and certify credits for carbon sequestered within their own supply chain. Some critics say that insets are little more than self-dealt offsets.

Within this hall of smoke and mirrors, it should come as no surprise that carbon exchanges are awash in false claims, double-counted credits, and outright fraud. A 2017 report by the European Commission estimated that 73 percent of the carbon credits in the EU's carbon trading system had a low likelihood of reducing emissions. In California's forest-based offset program, landowners successfully exploited the state's oversimplified carbon accounting methods to claim millions of meaningless carbon credits. The result was a net *increase* in emissions as of 2021.

One of the biggest challenges of many farm-based carbon exchanges is the so-called additionality problem. That's when the carbon credits that are being bought and sold don't represent any new, or "additional," carbon reductions. Consider, for example, a farmer who owns a tract of forest that she has no intention of cutting down. Under many offset programs, she could credibly sell a carbon credit to, say, Microsoft, for agreeing *not* to cut down that tract. Microsoft gets to bank a carbon credit and she gets a paycheck. Everyone wins—except the environment. Because, of course, from a climate perspective, nothing has changed; the same amount of carbon would be in the atmosphere had that transaction never occurred. This bit of trickery is extremely common in pollution markets. Studies of the UN's carbon offset scheme, the Clean Development Mechanism, found as many as 85 percent of available offsets likely fail to represent any additional carbon reductions.

There's an especially high risk that farm offsets will fall prey to the additionality problem when prices are too low. Right now, for example, a company like Amazon can purchase a farm-based carbon offset for bargain-basement prices that trickle down to about $20 per acre for farmers. That's nowhere near enough to entice skeptical farmers to go through the trouble and cost of meaningfully changing their operations.

But even if farm-based carbon programs got their prices just right and solved the additionality problem—two really big ifs!—there are still three fundamental problems with structuring public policy around farm-based carbon exchanges. The first is that we simply don't have an easy or cost-effective way to quantify how much carbon is sequestered in soil as a result of farmers using new practices, like planting cover crops. That's because different soils have very different absorption capacities. "Some soils have more room, and some have less room," says the University of Nebraska professor Humberto Blanco, who studies soil science. Even on the same, seemingly uniform field, soil carbon concentrations can vary fivefold. Any truly accurate accounting would require prohibitively expensive, site-specific sampling, performed deep in the ground. (Measuring just the top foot of soil often overestimates carbon sequestration potential.) As a result of these challenges, almost all carbon offset programs

use limited sampling and imperfect models, which can lead to gross overestimates and generalizations in how much carbon is actually being sequestered.

The second fundamental problem of farm-based carbon exchanges is that carbon credits are inherently unstable and impermanent. Think about a farmer who sells a carbon offset by agreeing not to plow his fields and instead to plant crops with no-till methods. As soon as he, or a future farmer on that same land, chooses to till those fields, all of the built-up soil carbon is released. The same is true for forests conserved to store carbon. What happens when those forests go up in flames, sending all their carbon into the atmosphere? Should farmers or landowners pay companies back for the carbon offsets they'd promised? Will companies adjust their offsetting claims?

The third problem is that private, farm-based carbon exchanges are subject most of the time to agribusiness's definitions of what qualifies as "climate smart" farming, which has the effect of skewing programs toward practices that serve agribusinesses' interests, rather than the best environmental outcome. For example, the seed and chemical giant Bayer launched a carbon program in 2020 that only pays farmers to reduce tillage or plant cover crops. While both practices have real environmental benefits, they are much less effective at sequestering soil carbon than other practices, like planting trees or shrubs between crop rows or in buffer zones. One study found that, even by conservative estimates, agroforestry practices like these can sequester two to five times more carbon per acre than practices such as no-till or cover cropping. But companies like Bayer aren't interested in paying farmers to do something that means they'll buy fewer proprietary seeds or chemical treatments. In fact, paying farmers to reduce tillage and plant cover crops actually boosts Bayer's sales, since large-scale, conventional commodity crop farms generally use a Bayer product, Roundup, to control for weeds that would have been tilled under and to "knock down" cover crops when it's time to plant a cash crop. Across the board, carbon offset or inset programs disproportionately reward tweaks to the status quo over transformational change.

There's a good reason why many Democratic and Republican lawmakers seized on carbon exchanges as a potential solution to reducing emissions in the agricultural industry. There's genuine bipartisan belief that pollution exchanges can work, and it's also a politically easy path forward. Voluntary carbon exchanges impose no pain points on industry, touch no political third rails, anger no arsenal of lobbyists. But the reality is that any effort to meaningfully reduce greenhouse gas emissions requires getting big polluting agricultural companies to shift how they do business—which requires the hard work of holding them to account.

That means, at a minimum, that regulators at the USDA and the Environmental Protection Agency must begin treating agriculture like any other polluting industry. Currently, many big agricultural companies, including animal feeding operations, enjoy special deals to avoid air pollution standards in exchange for funding monitoring, and leverage other carve-outs that shield them from complying with federal pollution laws, including the Clean Air and Water Acts. Forcing such companies to simply abide by the same rules that apply to every other industry and tweaking standards to better cover large livestock farms would have a huge effect: The top 6 percent of animal feeding operations produce more than 85 percent of U.S. animal agriculture's climate pollution, and animal agriculture generates roughly 80 percent of *all* U.S. agriculture emissions. The EPA and USDA could also do a better job of zeroing in on specific farming methods, like overapplying synthetic fertilizer that doesn't get absorbed by plants. Such wasteful methods produce outsized greenhouse gas emissions in the form of nitrous oxide.

There's also a clear, pragmatic—and politically feasible—policy road map. It starts by expanding and strengthening the farm-based federal environmental programs that already exist. Take, for example, two U.S. Department of Agriculture programs: the Environmental Quality Incentives Programs (EQIP) and the Conservation Stewardship Program (CSP). These programs pay farmers to make their operations more climate friendly—by, for instance, planting cover crops, managing rotational grazing, using agroforestry, and restoring wetlands—and they're extremely popular. Congress hasn't appropriated anywhere near enough money to accept all of the farmers who want to participate in them. A study by the Institute for Agriculture and Trade Policy found that the USDA denied more than half of all EQIP and CSP applications between 2010 and 2020. That's a great problem to have. Congress and the USDA should move immediately to fully fund these programs to meet current interest and expand them in the future, delivering an easy win to farmers.

But expanding these programs isn't enough; Congress needs to make them better, by changing their funding priorities to offer the greatest rewards to farmers pursuing practices that have the greatest climate impact. An analysis by the nonprofit watchdog Environmental Working Group found that only 23 percent of EQIP funds distributed between 2017 and 2020 went to practices that reduce greenhouse gas emissions. Far too many taxpayer funds bankroll expensive false solutions, like manure biodigester systems on large hog and dairy farms.

These solutions aren't particularly flashy. It's difficult to call a press conference announcing that the USDA is dramatically improving an existing program, or to cast a congressional decision to fully fund EQIP as a "bipartisan triumph." But such basic, deliberate policy pushes could do much more to address the climate crisis than farm-based carbon markets ever could. WM

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