

April 29, 2021

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RE: Comments on the Executive Order on Tackling the Climate Crisis at Home and Abroad: Docket Number USDA-2021-0003; submitted online via www.regulations.gov

Family Farm Action Alliance welcomes the opportunity to provide comments on the Executive Order (EO) on Tackling the Climate Crisis at Home and Abroad.

Family Farm Action Alliance is a national research, policy development, market innovator, and advocacy organization working to build a sustainable, inclusive economy in which everyone has the right to share in the prosperity they help build while respecting our land, natural resources, and neighbors around the world. We focus our efforts on: 1) anti-monopoly reform, 2) regenerative agriculture, 3) resilient local and regional food systems, and 4) market innovation. This Executive Order squarely aligns with the interests of our supporters: farmers, ranchers, small business owners, and rural constituencies.

Family Farm Action Alliance applauds the Biden-Harris administration and Secretary Vilsack's dedication to ensuring farmers and ranchers can benefit from and address climate change mitigation, and this inquiry for farmer input. We support any program that incentivizes independent farmers and ranchers to implement climate change mitigation and carbon sequestering practices, but are deeply concerned if the EO is to be implemented without:

- 1. Containing preemptive antitrust and competition protections;
- 2. Scientific regulation and oversight by USDA, as opposed to corporate agribusinesses;
- 3. Ensuring equitable access for all independent farmers and ranchers, regardless of size or land tenure status; and
- 4. Formally disincentivizing agribusiness practices that produce high levels of greenhouse gasses.

Background

Farmers and ranchers have endured changing weather patterns and the consequences of these changes. Heeding the urgency of climate science and the many weather related warnings, our farmer and rancher members have been working for decades to reduce carbon emissions and sequester carbon. It is from their experience with on-farm conservation practices that we have identified two main challenges that largely determine their success: 1) the strength of antitrust and competition protections, and 2) the resiliency of agricultural finance. Unfortunately, both are currently brittle in the face of climate change induced risks and fail to position farmers to make

beneficial adaptations. Before describing our recommendations pertaining to the EO, we will outline our concerns regarding the intersection of antitrust and competition enforcement and agricultural finance within climate adaptation programs.

Competition and Climate Change Mitigation

Farmers must be protected from any form of abusive business practices brought about by partnerships with corporate agribusinesses, both unforeseen and intentional. The private agribusiness entities positioning themselves to implement climate programs and carbon credits are those that already hold monopolistic control of global agricultural markets (see Figure 1). Those same entities require farmers and ranchers to enter contracts that constrain their choices and autonomy by mandating certain inputs and practices be used in every link of the agricultural goods production and processing chains. If not thoughtful, any agribusiness-led climate change mitigation program could compound the challenges stemming from our hyper-consolidated food system.

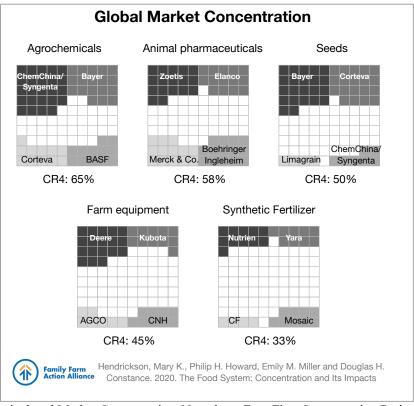


Figure 1. Global Agricultural Market Concentration. Note that a Four Firm Concentration Ratio (CR4) above 40% is considered to be under monopsonistic control, and signals market problems such as price fixing.

The monopolistic abuses of Big Tech and Big Data have been demonstrated extensively (including in the 2020 U.S. House Judiciary Committee's Investigation of Competition in Digital Markets¹), however, an antitrust lens should be expanded to include agricultural data,

¹ Available at https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf?utm_campaign=4493-519

acquisitions, and climate change mitigation in precision agriculture programs led by large agribusiness. The powerful and consolidated agribusiness corporations included in Figure 1 are those also implementing "climate-smart" farming -- all while limiting farmer choice and mining farm-level data. ETC Group's 2018 report, "Plate Tech Tonics: Mapping Corporate Power in Big Food" explains:

The world's largest farm equipment manufacturers have invested heavily in digital technology platforms and most have forged alliances with seed/pesticide and fertilizer companies to profit from data-driven farming.[]Precision agriculture – the application of computer-generated data and satellite- and Internet-based communications to industrial farm production – is also called "smart farming" or "farming 4.0." It can refer to a wide array of proprietary hardware and software products using artificial intelligence and Big Data, such as remote imaging and sensing (via drones, for example), robotics and automation, and it can encompass financial services, commodity trading, weather forecasting, etc.

They ask:

Publicly available information on the digital trading alliance is scarce, but a digital tech partnership among top-tier "competitors" should trigger alarm bells for regulators, farmers and consumers. How will regulators oversee a digital technology initiative that spans the globe, especially if it is based on proprietary platforms that could exclude or marginalize smaller firms? Will anti- trust regulators have the tools to determine if the initiative is spurring anti- competitive practices? What are the risks for global food security if the world's largest handlers of agricultural goods and financial services establish a digital lock on the global food chain?

Family Farm Action Alliance is supportive of climate change mitigation programs, but is also deeply concerned by the dangers of pairing these programs with poor antitrust and competition protections and agribusiness-led solutions. Strong, preemptive, and carbon-credit-specific competition legislation and regulation must be in place before USDA develops a carbon bank and credit system. We recommend fair competition protections be adapted from the Packers and Stockyards Act of 1921² with a minimum of the 2010 Farmer Fair Practice Rule³ level of enforcement. Without these protections, agribusiness corporations will wield their concentrated economic and political power to profit from a new and complicated market -- just as they have in every other agricultural market.

USDA should ensure that agricultural corporations participating in any future carbon credit program are doing so in good faith to mitigate climate change, rather than simply using a new market mechanism to further concentrate their already-disproportionate power in agriculture. We recommend that USDA consider requiring all potential participants (selling or buying credits) submit an annual greenhouse gas emissions inventory of their entire supply chain (including those currently exempt like dairies, poultry, hog, and other confined animal production systems),

² 7 USC §§ 181-229

³ Federal Register. 2010 Farmer Fair Practice Rules. Vol. 75, No. 119. June 2010. Available at https://www.govinfo.gov/content/pkg/FR-2010-06-22/pdf/2010- 14875.pdf

divest assets if they currently control 25% or greater of any agricultural market share, allow farmers exclusive ownership of any farm-level climate sensing data, and allow farmers to exit any sort of carbon credit contract for any reason with no penalty.

Agricultural Finance and Climate Change

Climate change is making growing conditions more difficult and costly for producers, lenders, and taxpayers. Unless lending institutions or farm subsidies shift to acknowledge and address the reality of a changing climate, current finance structures will not be able to adapt to the impending climate-induced stresses that are to come - physical and financial.

The U.S. experienced 12.6 major extreme weather events (each causing more than \$1 billion in damage) from 2014-2019. This doubles the 6.3 extreme weather events from 1980-2018.⁴ The National Oceanic and Atmospheric Administration (NOAA) estimates that extreme weather events from 1980-2020 have cost \$1.175 trillion.⁵ Droughts alone cost U.S. agriculture \$10-14 billion annually.⁶ USDA-ERS estimated increased costs to crop insurance by 11% in corn and 65% in soybeans due to climate change for variability in yield and crop failures.⁷ As the climate warms, rain patterns change, and seasonal variations shift, one study suggests that by 2070, more than half of U.S. crop acreage will have to change crops to maximize productivity. Even if such a shift were successful, 5% of U.S. farmland will be non-arable and non-productive by 2070.

As land productivity decreases, so does its value. This becomes problematic for farmers and financiers alike, as farmland is the primary form of collateral for farm and agricultural loans. In 2020, land accounted for four-fifths of agricultural assets. At the same time, farm debt levels have been rising, nearly to the level that sent land values crashing during the 1980 farm crisis. Some financing lessons were learned from the farm crisis, but the impacts of a changing climate on farm productivity and bankrolls was not one of them. The Agricultural Credit Act of 1987 put minimum capitalization requirements for the Farm Credit System (FCS) as a safety-valve in the event of a large number of bankruptcies. The economic models used to craft the tool, however, did not account for climate change and farm income. Most current credit policies do not internalize climate change risks and costs, generating ever-increasing share of debt that farmers will not be able to be repay with lowered yields and decreasing land values.

Agricultural lenders are not likely to include climate change risks in their assessments without technical guidance or incentives to do so. Even firms that incorporate climate risk in their

⁴ Rosamond L. Naylor. 2019. "Long-Run Uncertainties for U.S. Agriculture." Federal Reserve Bank of Kansas City. Available at https://www.kansascityfed.org/research/~/~/media/1a8a80e32b3c4c5b800fb9dc1bdbc4c5.ashx

⁵ NOAA. 2020. "U.S. Billion Dollar Climate and Weather Disasters 1980-2020." NOAA National Centers for Environmental Information. Available at https://www.ncdc.noaa.gov/billions/events.pdf

⁶ Yusuke Kuwayama. 2019. "The Economic Impacts of Drought on U.S. Agriculture." Resources for the Future.

⁷ Andrew Crane-Droesch, Elizabeth Marshall, Stephanie Rosch, Anne Riddle, Joseph Cooper, and Steven Wallander. 2019. "Climate Change and Agricultural Risk Management Into the 21st Century." USDA-ERS. Available at https://www.ers.usda.gov/webdocs/publications/93547/err-266.pdf?v=9932.1

⁸ USDA-ERS. "Farmland Value." Updated November 2, 2020. Available at https://www.ers.usda.gov/topics/farm-economy/land-use-land-value-tenure/farmland-value/

operations are at a disadvantage as banking and market regulators are not able to institute clear oversight and transparency to effectively manage risk. Even so, many farm groups have issued a strong position that climate change finance improvement should not be done on the backs of farmers. In short, to effectively address climate change mitigation through markets, fossil fuel and carbon-intensive industrial practice financing must be systematically changed, including industrial agriculture operations. Farming itself is an important, but relatively smaller contributor to climate-induced market instability. Despite this, we know agricultural production has an important role to play in greenhouse gas emission reduction, and global carbon sequestration. While USDA does not have sole authority to implement our finance specific recommendations, they are included in section B of our comment.

Recommendations

For readability, our comment is organized in the order of questions as written in the Federal Register.

1. Climate-Smart Agriculture and Forestry Questions

- A. How should USDA utilize programs, funding and financing capacities, and other authorities, to encourage the voluntary adoption of climate-smart agricultural and forestry practices on working farms, ranches, and forest lands?
- 1. How can USDA leverage existing policies and programs to encourage voluntary adoption of agricultural practices that sequester carbon, reduce greenhouse gas emissions, and ensure resiliency to climate change?

Requested Action: USDA should expand existing conservation programs to their full extent, implement conservation stewardship practices as defined in the Climate Stewardship Act, and disincentivize agricultural practices that produce high levels of greenhouse gases.

Independent farmers and ranchers depend on sound working lands conservation programs. The USDA already has broad reaching conservation programs that we believe should be the foundation of USDA's approach to fulfilling this EO. Many farmers are already familiar with the enrollment process, FSA, NRCS, and extension personnel trained in implementing the programs. If the following adaptations are made, we are confident the existing voluntary programs are well positioned to meet the climate challenges ahead:

- Secretary Vilsack should continue the expansion of USDA working lands conservation programs such as:
 - o Conservation Reserve Program (CRP)
 - o Environmental Quality Incentives Program (EQIP)
 - o Conservation Stewardship Program (CSP)
 - o Regional Conservation Partnership Program (RCPP)
- Expand and request increased mandatory funding for the Sustainable Agricultural Research and Education (SARE) program

- Exclude Confined Animal Feeding Operation (CAFO) manure waste management eligibility from EQIP funding, and reaffirm programmatic support of practices found in CSP programs
 - O By formally disincentivizing CAFO eligibility from conservation program funding, USDA will demonstrate its understanding that CAFOs produce liquid manure, which emits more methane (25 times more potent than carbon dioxide)⁹ than solid manure in a dry-lot or on pasture.¹⁰
- Expand training and technical assistance protocols by NRCS, FSA, and extension professionals that incorporate climate change risk mitigation when recommending programs and practices to farmers including but not limited to:
 - Prioritizing Whole Farm Revenue Protection in federally supported crop insurance packages, and bolstering outreach to insurance providers, so farmers and ranchers can diversify their farms with less financial risk.
- Leverage CCC, EQIP, and FSA Equipment Share funds to assist producers with acquisition through purchase or cooperative shares of equipment to advance working lands conservation practices.
- 2. What new strategies should USDA explore to encourage voluntary adoption of climate-smart agriculture and forestry practices?

Requested Action: Develop farm insurance packages and programs that mitigate risk for intensely managed grazed livestock.

Despite its ability to sequester carbon across a variety of temperate environments, USDA has not incentivized managed grazed livestock. ¹¹, ¹² A recent study found that adaptive multi-paddock grazing sequestered 13% more soil carbon and 9% more soil nitrogen than continuously grazed systems in "across-the-fence" comparisons. ¹³

⁹ EPA. "Importance of Methane." Available at https://www.epa.gov/gmi/importance-methane

¹⁰ "When livestock manure is stored or treated in systems that promote anaerobic conditions (e.g., as a liquid/slurry in lagoons, ponds, tanks, or pits), the decomposition of the volatile solids component in the manure tends to produce CH4 [(methane)]. When manure is handled as a solid (e.g., in stacks or drylots) or deposited on pasture, range, or paddock lands, it tends to decompose aerobically and produce CO2 [(carbon dioxide)] and little or no CH4. Ambient temperature, moisture, and manure storage or residency time affect the amount of CH4 produced because they influence the growth of the bacteria responsible for CH4 formation. For non-liquid-based manure systems, moist conditions (which are a function of rainfall and humidity) can promote CH4 production. Manure composition, which varies by animal diet, growth rate, and animal type (particularly the different animal digestive systems), also affects the amount of CH4 produced. In general, the greater the energy content of the feed, the greater the potential for CH4 emissions." Environmental Protection Agency. 2021. "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2019." Available at https://www.epa.gov/sites/production/files/2021-04/documents/us-ghg-inventory-2021-main-text.pdf

Oklahoma State University Division of Agricultural Sciences and Natural Resources. "Carbon Sequestration a Positive Aspect of Beef Cattle Grazing Grasslands." Available at http://www.dasnr.okstate.edu/Members/donald-stotts-40okstate.edu/carbon-sequestration-a-positive-aspect-of-beef-cattle-grazing-grasslands

¹² David Whitehead. 2020. "Management of Grazed Landscapes to Increase Soil Carbon Stocks in Temperate, Dryland Grasslands." Frontiers in Sustainable Food Systems, Vol 4. Available at https://www.frontiersin.org/articles/10.3389/fsufs.2020.585913/full

¹³ Samantha Mosier, Steven Apfelbaum, Peter Byck, Francisco Calderon, Richard Teague, Ry Thompson, and M. Francesca Cotrufo. 2021. "Adaptive multi-paddock grazing enhances soil carbon and nitrogen stocks and

Requested Action: RMA should initiate a rulemaking to require private insurers to incorporate climate change risks into the calculation of policy premiums and indemnification rates for crop losses.

Without this, insurance policy premiums will increase as indemnification rates decrease. Falling short of complete financial collapse, farmers may opt out of participating in crop insurance, and some crops may become uninsurable in some parts of the U.S. Crop and livestock insurance could be written according to a federal standard to adapt to climate change (such as USDA's regionally specific "Adaptation Resources" NEMA may also consider using Nitrogen Use Efficiency (NUE) metrics, instead of yield or profit, when developing climate-smart insurance programs. 15

Requested Action: Implement a program that offers support through forgivable loans, grants, or indemnities to farmers during the required 3-year transition period in USDA Organic Certification.

Certified organic agricultural practices typically sequester more carbon than conventional agricultural systems. ¹⁶ The high overhead costs of new equipment and potentially lowered profit margins associated with the required 3-year transition period pose financial uncertainty as farmers cannot yet attain organic premiums. Overall, this dissuades potential adopters of Organic production. Increasing accessibility of organic certification increases U.S. agriculture's ability to address the climate challenge.

Requested Action: Bolster USDA's market development programs for markets that sell products from farms that: 1) have diversified management 2) sequester more carbon per pound of food for human consumption produced with shorter local and regional supply chains.

USDA market development program directives to consider:

- Require USDA food purchasing programs to prioritize regionally produced food and food products from independent farmers, ranchers, and processors.
- Expand eligibility for the Farmers Market and Local Food Promotion Program (FMLFPP) grants to be more accessible to local food aggregation centers and hubs to compensate for monopoly controlled and unfair food retail markets.
- Establish tax incentives for individuals who invest in infrastructure for local and regional foods systems, included but not limited to food aggregation centers, shared farming and

stabilization through mineral association in southeastern U.S. grazing lands." Journal of Environmental Management, Vol 288. Available at https://doi.org/10.1016/j.jenvman.2021.112409

¹⁴ Maria K. Janowiak, Daniel N. Dostie, Michael A. Wilson, Michael J. Kucera, R. Howard Skinner, Jerry L. Hatfield, David Hollinger, and Christopher W. Swanston. 2016. "Adaptation Resources for Agriculture: Responding to Climate Variability and Change in the Midwest and Northeast." USDA-ARS, USDA-NRCS, and U.S. Forest Service. Available at https://www.climatehubs.usda.gov/sites/default/files/AdaptationResourcesForAgriculture.pdf

¹⁵ Steve Suppan. September 8, 2020. "Agricultural Finance for Climate Resilience." Institute for Agriculture & Trade Policy. Available at https://www.iatp.org/ag-finance-climate

¹⁶ Jens Leifeld and Juerg Fuhrer. 2010. "Organic Farming and Soil Carbon Sequestration: What Do We Really Know About the Benefits?" Ambio. Vol 39, No 8. doi: 10.1007/s13280-010-0082-8

- processing equipment, processing facilities, public marketplaces, and cooperative grocers.
- Expand school food procurement geographic preference to include local processed food products, in addition to unprocessed foods.
- Allow federal institutions such as hospitals, military bases, and agency offices to procure processed and unprocessed foods with regional geographic preference in contract bidding.

Requested Action: Incorporate climate risk and mitigation assessments for all USDA grant programs, cost-shares, and incentives. Then, redirect USDA support and subsidies to incentivize adoption of programs utilizing regenerative agricultural practices, and marketing food products to regional, independent markets.

Requested Action: Require all USDA administered research and outreach grants to prioritize long-term environmental and social benefits, and adverse impacts of the project.

B. How can partners and stakeholders, including State, local and Tribal governments and the private sector, work with USDA in advancing climate-smart agricultural and forestry practices?

Requested Action: Include strong, preemptive, antitrust and competition safeguards in any carbon market related relationships with farmers and ranchers. We recommend antitrust and competition protections mirror the Packers and Stockyards Act of 1921 as construed in the 2010 Farmer Fair Practice Rule.

Requested Action: Bar agribusiness companies from receiving promotion or support from USDA to implement climate mitigation solutions if they are: 1) net polluters as defined by the Environmental Protection Agency (EPA), or 2) control over 25% of their respective market(s).

Requested Action: Reshape agricultural financial tools to allow for long-term implementation of regenerative practices. Regenerative farms require regenerative financial tools.

- Undertake climate resilience analysis at the FCA. In order to ensure a stable credit market for farmers, the FCA must anticipate and respond to the threat of the climate crisis.¹⁷
- Lengthen Farm Service Administration (FSA) operating loan terms from 7 years to 20 years. Currently, farmers and ranchers are discouraged from implementing long-term onfarm regenerative practices that yield long-term benefits due to short-termed credit cycles.
- Allow FSA farm ownership and conservation lines of credit to be transitioned to operating credit under the same term.
- Implement a path for transition from or combination of FSA Farm Loan Programs to other FSA loan programs such as marketing assistance and farm storage facility loans under an umbrella operating loan term.

https://www.americanprogress.org/issues/economy/reports/2021/01/14/494574/promoting-climate-resilient-agricultural-rural-credit/

¹⁷ Zoe Willingham. January 14, 2021. "Promoting Climate-Resilient Agricultural and Rural Credit." Center for American Progress. Available at

• Under congressional authority in the Farm Credit Act of 1971, require a 10% set aside of FCS profits to be re-lent to promote environmentally sustainable agriculture, prioritizing BIPOC and women farmers.

Requested Action: Restructure broad financial tools and reporting to prioritize and support farmers and ranchers with inevitable climate related financial losses, and implementing climate adaptation strategies.

- Mandate the Securities Exchange Commission (SEC) to undergo rulemaking to require clear, comprehensive, comparable, and transparent disclosures.
- Require agribusiness corporations report their aggregate GHG emissions along their entire supply chains.
- SEC should issue "bad actor" designations to companies that not only would make
 them subject to climate risk audits, but also deny bad actors access to federal climatesmart agriculture program participation. Variants of good actor designations, depending
 on the effectiveness of practices employed on actual greenhouse gas emissions, could
 come with provisions for preferential access to federal contracts, subsidies, and federal
 credit access at discounted interest rates.
- SEC should increase current fines for repeated reporting noncompliance.

C. How can USDA help support emerging markets for carbon and greenhouse gases where agriculture and forestry can supply carbon benefits?

Requested Action: USDA's ARS and ERS should jointly establish physical carbon credit metrics, and assess third-party validators of a potential carbon market at frequent intervals.

USDA's research agencies are a mainstay of farmer-facing research. Taxpayer dollars fund USDA to benefit the public good; mitigating climate change through food production certainly furthers the public good. Farmers and agribusiness corporations alike look to USDA to set sound scientific standards and implement them via the many existing regional research stations, state and county extension agents, and county FSA and NRCS offices throughout the country. With support of professionals working directly with farmers, USDA is the best certifying agency to carry out President Biden and Secretary Vilsack's vision of implementing widespread, voluntary climate-smart agriculture.

As of March 2021, leading agrifood corporations and carbon credit certifiers cited USDA- ERS in <u>public forums</u> as the best entity to set and monitor environmental and financial agricultural carbon credit baselines. With authority provided in the 2002 Farm Bill, ¹⁸ regional sites for soil testing and practice reporting could be fully funded and staffed to understand regional soil carbon sequestration differences. Deploying regional staff would also ensure all farmers could participate in a USDA registered credit carbon bank, instead of requiring them to contract with a third party, private registry. USDA is the pragmatic choice to be the principal regulator of ongoing carbon credits because it is relatively protected from market disruptions compared to for-profit registries - ensuring privately developed credits would not lose value due to bankruptcy or economic recession. The challenge of ensuring permanence of practices to be an

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¹⁸ Farm Security and Rural Investment Act of 2002 - Sec. 9009, later repealed by the 2018 Farm Bill.

effective carbon credit registry would also be addressed with USDA as the principal scientific organization creating the new commodity.

Requested Action: USDA should take every step possible to stop programs and practices that unnecessarily increase greenhouse gas emissions before implementing a carbon bank. Agribusinesses and their polluting production schemes should not be eligible for incentives to address pollution issues they continually and disproportionately contribute to.

Such actions to stop net-polluting production include:

- Requiring entities undergo a full supply chain greenhouse gas emission inventory before they can participate in any carbon market.
- Baring CAFO manure management from EQIP eligibility, and requiring vertical
 integrators to take full responsibility and liability for properly managing manure created
 by the livestock they own, including accounting for those emissions in their emissions
 inventory.
- Implementing supply management for commodities to prevent overproduction that depletes soils and drives an industrialized feed-meat complex. 19
- Implementing agency provisions outlined in the Farm System Reform Act, Climate Stewardship Act, and the Agricultural Resilience Act.

Requested Action: Require a 15 year permanence period for carbon sequestration for corporate entities to buy or sell in a carbon market. Farmers are excluded from this requirement, and should be able to exit any carbon sequestration contract with no recourse.

Requested Action: Allow farmers already using regenerative practices to redeem grandfathered credits where appropriate records have been kept and can prove GHG mitigating/sequestering practices.

D. What data, tools, and research are needed for USDA to effectively carry out climate-smart agriculture and forestry strategies?

Requested Action: USDA's ARS and ERS set a baseline for environmental and financial modeling of all agricultural practices.

With USDA as chief scientific regulating authority of any climate-smart agricultural strategy, the agency should create a baseline model that accounts for accurate carbon sequestration and financial factors based on region and sector. Passed in the 2002 Farm Bill, USDA-ARS can establish regional sites for soil testing and practice reporting. The amount of carbon sequestered varies greatly by soil type, weather patterns, and practices. This demonstrates the need for numerous regional offices, staffed by expert soil scientists to provide accurate soil sequestration data from long-term, methodologically sound field trials. Trials should be run for a minimum of

¹⁹ "With lifeline subsidies favoring [feed grain] crops above others, many farmers find themselves with little choice in what they grow. The result is a market often flooded with cheap corn and soy, with meatpackers standing at the ready to accept feed prices at below production." Family Farm Action Alliance. 2020. "The Feed-Meat Complex: Unpacking the Truth About How Big Meat Pockets Billions in Farm Subsidies." Available at https://farmactionalliance.org/2020/11/16/thefeedmeatcomplex/

5 years, and continue indefinitely. If too few data samples are collected, the trend-line could be skewed, and result in too much or too little carbon sequestration being accredited to certain practices. Until those trials reach a statistically significant time period, as determined by soil science experts, carbon sequestration rates should remain within a conservative margin or error.

USDA-ERS will be vital to providing accurate financial modeling that ultimately determines the cost of carbon offset or emitted. Such a baseline ought to also consider the rising cost to farmers caused by climate change including lower yields, higher insurance premiums, and transitioning to different crops and production methods.

Requested Action: ARS and ERS should also take into account the entire life-cycle greenhouse gas emission inventory of production schemes when analyzing specific practices. For example, if examining the impact of methane digesters, the entire chain of CAFO production must be examined to determine the net impact of the entire supply chain.

Requested Action: In the event that on-farm data must be collected for climate-smart baselines or program participation, USDA should provide personnel to collect data. If this is unfeasible, USDA should provide assistance for farmers to invest in data collection tools making sure the farmer owns the data. Failure to do so could inhibit small-scale or limited resource farms from participating.

2. Biofuels, Wood and Other Bioproducts, and Renewable Energy Questions

C. How can USDA support adoption and production of other renewable energy technologies in rural America, such as renewable natural gas from livestock, biomass power, solar, and wind?

Requested Action: Bar "natural gas from livestock" from being eligible for renewable energy or climate-smart programs.

Methane digesters are not a renewable energy source, and encourage the expansion of industrial livestock operations. Methane digesters capture manure from large CAFOs in large pits or lagoons, capture methane (25 times more potent than carbon) produced by anaerobic digestion of the manure, and process the methane to be used as "natural" gas. This process is far from "renewable," especially when compared to the return on investment for wind and solar. From the buildings themselves to the taxpayer subsidies that keep CAFOs economically viable -- calling this artificial management scheme "renewable" is unequivocally false. Small CAFOs lack the volume of waste needed to produce excess methane, necessitating larger CAFOs be built if

²¹ Harwood D. Schaffer, Pracha Koonnathamdee, and Daryll E. Ray. 2008. "Economics of Industrial Farm Animal Production." Pew Commission on Industrial Farm Animal Production. Available at http://www.pcifapia.org/ images/212-6 PCIFAP Economics v5 tc.pdf

²⁰ "\$4 million could fund the startup costs for a 710- kilowatt factory farm gas project that would last 10 years, a 925- kilowatt solar project that would last 25–30 years, or a 2,000- kilowatt wind project that would last 20–25 years. At the end of those lifespans, the wind and solar projects would be able to fund the costs of new infrastructure, but factory farm gas would still rely on government grants." Stray Dog Institute. March 21, 2021. "Factory Farm Gas: A Threat to Our Climate, Communities, and Clean Energy Future."

entities are to collect the enticing carbon offset profits. A solution that requires constant subsidization, and increased industrialization is far from "renewable."

A host of serious environmental,²² health,²³ and environmental justice consequences²⁴,²⁵ related to industrial agriculture exist, and more would emerge from further incentivizing methane digesters. Incentivizing methane digesters hinders agriculture, the Biden Administration, and Vilsack's USDA from reaching climate change mitigation goals.

Requested Action: Incentivize Rural Electric Cooperatives (RECs) through infrastructure funds from USDA for providing individuals and businesses with a Net Metering program for renewable energy that directly pays the generator of the energy an equivalent wholesale rate for their excess energy.

Net Metering programs provide an opportunity for a business, farm, or individual (generator) to install and develop renewable energy from sources such as wind and solar. Power generated by the generator is first used to meet the energy needs of the generator with any excess power being transferred onto the grid to meet the demands of the utilities to include Rural Electric Cooperatives. Net Metering provides an opportunity to decentralize electric power generation making it more resilient in the face of increased extreme weather. Additionally, it provides power generation to meet growing needs and provides a revenue stream for the generators.

4. Environmental Justice and Disadvantaged Communities Questions

Environmental justice must be explicitly prioritized and addressed in any climate change mitigation programs. First and foremost, Family Farm Action Alliance recognizes the historic discrimination against, disregard, and eventual cooptation of indiginous, agroecological, and whole-systems agricultural practices -- now branded as "climate-smart" agriculture by USDA and agrifood corporations.²⁶ As a member of the Rural Coalition, we align with and elevate their comments regarding racial equity, environmental justice, and calls to support *all* farmers and ranchers.

²² Riva C. H. Denny. 2019. "Contributions to Global Climate Change: A Cross-National Analysis of Greenhouse Gas Emissions from Meat Production." Pp. 145-165 in Global Meat: Social and Environmental Consequences of the Expanding Meat Industry, edited by Bill Winders and Elizabeth Ransom. Cambridge, MA: MIT Press.

²³ Amy A. Schultz, Paul Peppard, Ron E. Gangnon, and Kristen M. C. Malecki. 2019. "Residential proximity to concentrated animal feeding operations and allergic and respiratory disease." Environment International, Vol 130. doi: 10.1016/j.envint.2019.104911

²⁴ Nicole Wendee. 2013. "CAFOs and environmental justice: the case of North Carolina." Environmental Health Perspectives, Vol 121, No 6. Available at https://doi.org/10.1289/ehp.121-a182

²⁵ S. M. Rafael Harun & Yelena Ogneva-Himmelberger. 2013. "Distribution of Industrial Farms in the United States and Socioeconomic, Health, and Environmental Characteristics of Counties." Geography Journal. Available at https://www.hindawi.com/journals/geography/2013/385893/

²⁶ Lisa Held. April 20, 2021. "Is Agroecology Being Co-Opted by Big Ag?" Civil Eats. Available at https://civileats.com/2021/04/20/is-agroecology-being-co-opted-by-big-ag/

A. How can USDA ensure that programs, funding and financing capacities, and other authorities used to advance climate-smart agriculture and forestry practices are available to all landowners, producers, and communities?

Requested Action: Conduct environmental justice analyses of every USDA program.

Environmental justice and racial equity must be prioritized in all USDA programs. Just as financial or environmental risk assessments are conducted, an environmental justice assessment should also be conducted. Such an assessment would include three main areas of consideration:

- 1. Is the program culturally appropriate? If so, do BIPOC farmers have access to the programs themselves, finance and capital requirements, outreach entities, technical assistance, etc.
- 2. Does the program disproportionately harm BIPOC communities? If there is any harm, the program should be altered or abandoned. For example, a carbon offset program that inadvertently incentivizes more CAFOs be built in a community of color while offsetting carbon emissions elsewhere would disproportionately harm BIPOC communities.
- 3. Does the program provide a path for new and aspiring BIPOC farmers to enter farming, while also ensuring existing independent farmers and ranchers can thrive?

Requested Action: Ensure those farming on Heirs' property, fractured allotments, and colonias can participate in *any* USDA program, including climate-smart programs.

As directed in the 2018 Farm Bill, USDA should examine the impacts of current land tenure disputes regarding Heirs' property, fractured allotments, and colonias on obtaining, financing, and implementing climate-smart agricultural practices. Also directed in the 2018 Farm Bill, USDA needs to fully implement the program to allow operators on Heirs' property to obtain a FSA farm number. Further, ERS should study and make recommendations on federal cooperative ownership standards, to remedy the current state patchwork policies regarding cooperative establishment, ownership, public-private collaboration, and operation.

B. How can USDA provide technical assistance, outreach, and other assistance necessary to ensure that all producers, landowners, and communities can participate in USDA programs, funding, and other authorities related to climate-smart agriculture and forestry practices?

Requested Action: Direct program funding and outreach for public climate adaptation and mitigation through 1890 and 1994 land grant institutions. These institutions serve smaller, independent, and socially disadvantaged farmers and ranchers.

The 1890 and 1994 land grant institutions serve socially disadvantaged populations with a fraction of the funding allocated to the 1862 institutions. The 1890 and 1994 institutions are also mandated in their mission statements to serve smaller, diverse farms and ranches. Unless some degree of technical assistance, outreach, and other assistance is led by the 1890 and 1994 institutions, not all farmers, landowners, and communities will be served equitably.

C. How can USDA ensure that programs, funding and financing capabilities, and other authorities related to climate-smart agriculture and forestry practices are implemented equitably?

Requested Action: Implement the Clyburn 10/20/30 Formula²⁷ throughout all USDA funding and outreach allocations, which would direct at least 10% of investment to be made in persistent poverty communities (counties where 20% or more of the population lives below the poverty line for the last 30 years).

Requested Action: Change USDA lending authority to prequalify beginning farmers for FSA loans, and provide no interest loans to beginning BIPOC farmers and BIPOC-led cooperatives.

Requested Action: Allow all Native Community Development Financial Institutions (CDFIs) to pay back only the interest on a loan to all federal financiers, and reinvest the principal amount into Native Community Development. This will bar existing commercial credit extraction from Native CDFIs.

USDA has begun the process of addressing systemic racism in its past conduct and programs that have disproportionately harmed Black, Indigenous, and People of Color (BIPOC) farmers. We hope to see this recognition and pattern of anti-racist action continue. Historically, federal farm programs have disproportionately benefited white farmers. In this new administration, committed to equity, it is of vital importance that increased proportions of USDA funding, outreach, and technical assistance reach BIPOC, women, and smaller farms first.

Conclusion

We are hopeful of President Biden's urgency in addressing the climate crisis, and are encouraged by Secretary Vilsack's commitment to improve USDA's conduct in the current administration.

We want to reiterate our position that we support any program that incentivizes independent farmers and ranchers to implement climate change mitigation and carbon sequestering practices, but are deeply concerned if the EO is to be implemented without:

- 1. Preemptive antitrust and competition protections;
- 2. Sole scientific regulation and oversight by USDA, as opposed to corporate agribusinesses;
- 3. Ensuring equitable access for all independent farmers and ranchers, regardless of size or land tenure status; and
- 4. Formally disincentivizing agribusiness practices that produce high levels of greenhouse gasses.

Lastly, if a carbon bank or carbon market is to be administered, we require significant market protections through antitrust enforcement *and* transparent carbon credit commodity price-setting mechanisms be in place to protect independent farmers and ranchers.

²⁷ Congressman James. E Clyburn. "10/20/30 Formula to Fight Persistent Poverty." Available at https://clyburn.house.gov/10-20-30-amendment

We appreciate your consideration of these recommendations, and look forward to working with you through the development and implementation of the Executive Order.

Sincerely,

Joe Maxwell President & CEO

Family Farm Action Alliance