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Recommended Citation

Olson, A. H., & Peterson, E. J. (2021). The Pandemic, Climate Change and Farm Subsidies. *Journal of Food Law & Policy*, 17(1). Retrieved from <https://scholarworks.uark.edu/jflp/vol17/iss1/4>

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—Journal of—
FOOD & LAW
—POLICY—

Volume Seventeen Number One
2021

THE PANDEMIC: CLIMATE CHANGE AND FARM SUBSIDIES
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A PUBLICATION OF THE UNIVERSITY OF ARKANSAS SCHOOL OF LAW

The Pandemic, Climate Change and Farm Subsidies

Allen H. Olson* & Edward J. Peterson**

I. Introduction

Many people believe that once the COVID-19 pandemic has passed, life will return to the way it was. This belief is both unrealistic and dangerous. It is unrealistic because the virus will be around for years if not indefinitely. The timeframe for the worst of the pandemic will depend on our ability to administer effective vaccines worldwide and the public's willingness to accept continued social distancing in the meantime. The damage done to public health, the economy and individuals is already substantial and will get worse. Recovery will be slow and incomplete.

The belief that life will return to the old normal is dangerous because it removes incentives to make changes to the environment and the economy that are necessary to respond effectively to the next pandemic, to save the planet from the worst effects of climate change on agriculture and other sectors of life and to avoid future economic and social disintegration. Returning to the way it was may be the beginning of the end.

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The virus has revealed weakness and inequity in the polices, programs and institutions that govern public health, medical care, unemployment, and distribution of economic subsidies to individuals and businesses. These problems are tied closely to the disparity of wealth in this country with an increasingly large share of resources being controlled by a small minority of the population.

The COVID-19 pandemic also demonstrates the fragile connection between the environment and food supply. For a time, the virus limited shopping for most people to trips to grocery stores. There have been shortages of some items, and both store workers and customers risked exposure in order to eat. Food bank resources are stretched thin as demand by the newly unemployed skyrockets.¹ At the same time, farmers had to plow under vegetables originally destined to restaurants forced to close by the pandemic.² They poured milk down the drain and killed young pigs on the farm as slaughterhouse capacity declined due to worker illness.³ USDA programs to move surpluses from farms to the hungry have moved slowly at best.⁴

Climate change will make everything worse. A warmer climate will contribute to future pandemics, the loss of agricultural land and irrigation water, reduced food production, hunger and starvation, civil unrest, social disruption and economic decline.⁵ It is too late to reverse all of these effects, but the failure of the world to eliminate carbon emissions and limit the amount of warming will likely end life on the planet as we know it.⁶

Going forward climate change must drive farm policy in the United States and the payment of subsidies to farmers. Farm subsidies have been included in farm policy legislation, popularly known as Farm Bills, since

¹ See Nina Lakhani, *'A Perfect Storm': US Facing Hunger Crisis as Demand for Food Banks Soars*, GUARDIAN (Apr. 2, 2020), <https://www.theguardian.com/environment/2020/apr/02/us-food-banks-coronavirus-demand-unemployment>.

² See Ben Kesling, *Coronavirus Forces Farmers to Destroy Their Crops*, WALL STREET J. (Apr. 26, 2020, 10:32 AM), <https://www.wsj.com/articles/coronavirus-forces-farmers-to-destroy-their-crops-11587909600>.

³ See Liz Crampton, *Farmers Still Plagued by Hog Backlog*, POLITICO (June 19, 2020, 10:00 AM), <https://www.politico.com/newsletters/morning-agriculture/2020/06/19/farmers-still-plagued-by-hog-backlog-788665>.

⁴ See *id.*

⁵ See DAVIS WALLACE-WELLS, *THE UNINHABITABLE EARTH, LIFE AFTER WARMING* 49–58 (2019).

⁶ *Id.* See also BILL MCKIBBEN, *FALTER: HAS THE HUMAN GAME BEGUN TO PLAY ITSELF OUT?* 36–39 (2019). For other reports published on the multitude of effects of climate change, see *Reports*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, <https://www.ipcc.ch/reports/> (last visited Feb. 19, 2021) (listing various assessment reports and special reports regarding the effects of climate change).

the Great Depression.⁷ The primary purposes of farm subsidies have been to keep farmers from going out of business during hard times and to promote food security in the United States.⁸ Other objectives have been added over time including the conservation of land, soil and water resources, and foreign aid.⁹

Eligibility for farm subsidies has in the past been conditioned on compliance with both production and conservation requirements.¹⁰ Production conditions have included quotas, allotments, and set asides to reduce production in an attempt to increase commodity prices.¹¹ Base acres and established yields have in turn been used to reduce the portion of a crop upon which subsidies are paid.¹² Conservation conditions have included protecting wetlands and highly erodible soils.¹³

Farm Bills have also imposed limits on how much subsidy can be collected by a farm or person.¹⁴ These are known generally as payment limitations. Payment limitation amounts have changed from Farm Bill to Farm Bill. Recent Farm Bills have also prohibited farm subsidy payments to individuals whose adjusted gross incomes exceed a certain amount.¹⁵ Similar requirements have applied to corporations and limited liability companies but not to farming general partnerships.¹⁶

Despite payment limitations, the vast majority of farm subsidies have gone to larger farms.¹⁷ Between 1995 and 2019, USDA paid farmers 396.9 billion dollars.¹⁸ Approximately 78 % of those payments went to the top 10% of payment recipients.¹⁹ These numbers represent a trend since the

⁷ See Allen H. Olson, *Federal Farm Programs – Past, Present and Future – Will We Learn From Our Mistakes?*, 6 GREAT PLAINS NAT. RESOURCES J. 1 (2001).

⁸ See *id.* at 2–7.

⁹ See *id.* at 5, 17; see 16 U.S.C.A. 3865 (Westlaw through Pub. L. No. 116-259).

¹⁰ 7 U.S.C.A. §§ 9013–14 (Westlaw through Pub. L. No. 116-259); 16 U.S.C.A. §§ 3811, 3821 (Westlaw through Pub. L. No. 116-259); Olson, *supra* note 7, at 5–22.

¹¹ Olson, *supra* note 7, at 5–22.

¹² 7 U.S.C.A. §§ 9013–14.

¹³ 16 U.S.C.A. §§ 3811, 3821.

¹⁴ See, e.g., 7 U.S.C.A. § 1308 (Westlaw through Pub. L. No. 116-259).

¹⁵ RANDY SCHNEPF & MEGAN STUBBS, CONG. RESEARCH. SERV., R45659, U.S. FARM PROGRAM ELIGIBILITY AND PAYMENT LIMITS UNDER THE 2018 FARM BILL (P.L. 115-334), at 11 (2019).

¹⁶ 7 U.S.C.A. § 1308(b); 7 C.F.R. § 1400.1 (2021).

¹⁷ Andrea Freeman, *The 2014 Farm Bill: Farm Subsidies and Food Oppression*, 38 SEATTLE U. L. REV. 1271, 1283–84 (2015).

¹⁸ *The United States Farm Subsidy Information*, ENVTL. WORKING GROUP, <https://farm.ewg.org/region.php?fips=00000&statername=UnitedStates> (last visited Feb. 19, 2021).

¹⁹ *Commodity Subsidies in the United States Totaled \$240.5 Billion from 1995-2020*, ENVTL. WORKING GROUP,

end of World War II. At the same time, the number of farmers and farms has decreased in inverse proportion to the size of farms.²⁰

Recent farm programs have relaxed certain production and payment limitation requirements for payment eligibility.²¹ For example, payments to farmers to help them weather the Administration's trade war with China under the 23 billion dollar Market Facilitation Program (MFP) are paid on the farm's total production of the covered commodities and not just on a portion of the production as in prior Farm Bills.²² Payments under the CARES Act to counter the coronavirus' effect on farm profitability (about 16 billion dollars) are subject to more generous payment limitations - \$250,000 per person and up to \$750,000 for corporations and limited liability companies - than programs under the 2018 Farm Bill, which limited payments to \$125,000 per person or corporation.²³ The CARES Act also eliminates the \$900,000 adjusted gross income requirement for farmers whose income comes 75% from farming, ranching or forestry.²⁴ These changes will increase the amount that each farming operation receives and allow wealthy farmers to collect payments that they would not have been eligible for under prior laws. These changes mean that big farms will receive an even larger portion of the subsidy pie than in the past.

<https://farm.ewg.org/progdetail.php?fips=00000&progcode=totalfarm&page=conc®ionname=theUnitedStates> (last visited Feb. 19, 2021).

²⁰ JAMES M. MACDONALD ET AL., ECON. RESEARCH SERV., U.S. DEP'T OF AGRIC., EIB-189, THREE DECADES OF CONSOLIDATION IN U.S. AGRICULTURE, at iii (2018).

²¹ See RANDY SCHNEPF & MEGAN STUBBS, CONG. RESEARCH SERV., R46248, U.S. FARM PROGRAMS: ELIGIBILITY AND PAYMENT LIMITS app. A, tbls. A-1, A-3 (2020), available at <https://crsreports.congress.gov/product/pdf/R/R46248>; see Trade Mitigation Program, 84 Fed. Reg. 36,456, 36,459 (July 29, 2019) (to be codified at 7 C.F.R. pt. 1409); see RANDY SCHNEPF, CONG. RESEARCH SERV., R46395, USDA'S CORONAVIRUS FOOD ASSISTANCE PROGRAM: ROUND ONE (CFAP-1) 1, 12-13 (2020), available at <https://crsreports.congress.gov/product/pdf/R/R46395>.

²² FARM SERV. AGENCY, U.S. DEP'T OF AGRIC., NOTICE MFP-2, 2018 MARKET FACILITATION PROGRAM 1, 3 (2018), available at https://www.fsa.usda.gov/Internet/FSA_Notice/mfp_2.pdf; see 7 C.F.R. § 1409.5 (2021); see Market Facilitation Program, 83 Fed. Reg. 44,173, 44,173 (Aug. 30, 2018) (to be codified at 7 C.F.R. pt. 1409); see Trade Mitigation Program, 84 Fed. Reg. at 36,459. See also RANDY SCHNEPF, CONG. RESEARCH SERV., IF11289, FARM POLICY: COMPARISON OF 2018 AND 2019 MFP PROGRAMS (2019), available at <https://crsreports.congress.gov/product/pdf/IF/IF11289>.

²³ See Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Pub. L. No. 116-136, div. B, tit. 1, 134 Stat. 281, 505-06 (2020); see Coronavirus Food Assistance Program, 85 Fed. Reg. 30,825, 30,827 (May 21, 2020) (to be codified at 7 C.F.R. § 9.7); see FARM SERV. AGENCY, U.S. DEPT. OF AGRIC., 1-CFAP, FSA HANDBOOK: CORONAVIRUS FOOD ASSISTANCE PROGRAM 2-3 (2020) [hereinafter FSA HANDBOOK]; see *Coronavirus Food Assistance Program*, U.S. DEPT. AGRIC., <https://www.farmers.gov/cfap> (last visited Feb. 13, 2021) (follow "Payment Limitations" hyperlink).

²⁴ Coronavirus Food Assistance Program, 85 Fed. Reg. at 30,827. See also FSA HANDBOOK, *supra* note 23, at 2-7.

Yet, the recent programs impose no new conservation or environmental requirements as a condition to receipt of the increased subsidies.²⁵ The term “climate change” is mentioned nowhere in the law or regulations. The benefits from the billions of dollars paid or to be paid are primarily private not public, and those benefits inure principally to the farmers who need them the least. Small farmers get relatively little.²⁶

Furthermore, the integrity of USDA’s farm subsidy programs is in doubt. USDA’s efforts to assure compliance with those conservation and environmental conditions that remain in effect have steadily declined during both the Obama and Trump administrations.²⁷ Payment limitations compliance audits are performed less frequently, and those that are done rarely result in adverse decisions against the farmers.²⁸ Fraud in crop insurance, another farm subsidy, exceeds that in the Food Stamps program.²⁹ Farmers are receiving monies to which they are not legally entitled.

The purposes of farm subsidies appear to have changed since the inception of farm programs. Now the main purpose is to preserve the profitability of large farming operations without regard to production, conservation or food security. Farm politics has been substituted for farm policy. To the extent large farms incidentally promote food security, this approach may have public benefits in the short term, but it does little to address the problems climate change, pandemics, and environmental degradation are inflicting on agricultural production and food security in the near future as temperatures continue to warm.

²⁵ See Market Facilitation Program, 83 Fed. Reg. at 44,715–16; see Coronavirus Food Assistance Program, 85 Fed. Reg. at 30,829–30.

²⁶ Anne Schechinger, *New USDA Records Show Trade Bailout and Coronavirus Payments Went to Largest Farms*, ENVTL. WORKING GROUP AGMAG (Sept. 22, 2020), <https://www.ewg.org/agmag/2020/09/new-usda-records-show-trade-bailout-and-coronavirus-payments-went-largest-farms>.

²⁷ OFFICE OF INSPECTOR GEN., U.S. DEP’T OF AGRIC., AUDIT REPORT 50024-0015-11, U.S. DEPARTMENT OF AGRICULTURE’S FISCAL YEAR 2019 COMPLIANCE WITH IMPROPER PAYMENT REQUIREMENTS 5–6 & tbl.1 (2020), available at <https://www.usda.gov/sites/default/files/audit-reports/50024-0015-11.pdf>.

²⁸ *Id.* at 8 (showing the noncompliance of the Farm Service Agency); OFFICE OF INSPECTOR GEN., U.S. DEP’T OF AGRIC., AUDIT REPORT 03601-0001-22, FARM SERVICE AGENCY COMPLIANCE ACTIVITIES 26–27 (2014), available at <https://www.usda.gov/sites/default/files/03601-0001-22.pdf>.

²⁹ OFFICE OF INSPECTOR GEN., U.S. DEP’T OF AGRIC., AUDIT REPORT 05601-0005-31, RMA’S UTILIZATION OF CONTRACTED DATA MINING RESULTS 7 (2017), available at <https://www.usda.gov/sites/default/files/audit-reports/05601-0005-31.pdf>; Donald Carr, *Where is the Scrutiny of Crop Insurance Fraud?*, ENVTL. WORKING GROUP AGMAG (Apr. 22, 2013), <https://www.ewg.org/agmag/2013/04/where-scrutiny-crop-insurance-fraud>.

Taxpayers must ask whether they should get more for their dollars than just allowing large farmers to keep their current lifestyles. Should subsidy dollars obtain public benefits as well? Should the trend to decouple payments from Farm Bill requirements be reversed?

The answers are clearly yes. To survive global warming, agricultural production and food distribution systems will have to adapt. Guarantying large farm profitability does not by itself foster needed changes. Without conditions, subsidies could in fact stifle innovation leaving the country vulnerable to food insecurity. Why change how you farm if the government will bail you out every time you lose a crop?

What public benefits should taxpayers expect from farm subsidy payments in order to promote food security in the age of climate change? We would suggest at a minimum 1) the preservation of agricultural land, 2) the reduction of soil erosion, 3) the conservation of water, and 4) carbon sequestration.

II. Suggestions for Public Benefits

(1) Preservation of Agricultural Land

Climate change threatens agricultural land in many ways. Higher temperatures will make land less productive and take some land out of production altogether.³⁰ The twin scourges of drought and flood, ever more powerful as the result of global warming, will accelerate erosion and contaminate land with upstream pollution.³¹ Rising sea levels will cover some farmland and make other land less productive by saltwater intrusion.³² Supplies of irrigation water will be diminished.³³

As climate change chips away at our productive land base, preserving what is left is crucial to food security. Yet in the United States, millions of acres of good cropland and pastureland are lost to urban development. Forest lands are similarly affected. These losses have been accruing for a long time.

³⁰ Intergovernmental Panel on Climate Change [IPCC], *Climate Change and Land*, at 7 (2019), <https://www.ipcc.ch/site/assets/uploads/sites/4/2021/02/210202-IPCCJ7230-SRCCCL-Complete-BOOK-HRES.pdf>.

³¹ *Id.* at 8.

³² Intergovernmental Panel on Climate Change [IPCC], *The Ocean and Cryosphere in a Changing Climate*, at 328 (2019), https://www.ipcc.ch/site/assets/uploads/sites/3/2019/12/SROCC_FullReport_FINAL.pdf.

³³ *Id.* at 394.

The United States lost 11 million acres of farmland and ranchland from 2001 to 2016 through land development.³⁴ In that timeframe, every state converted high quality agricultural land to developed uses.³⁵ Prime farmland, that land with the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oil seed crops, decreased by 15.2 million acres from 1982 to 2017.³⁶

Land converted to urban and other highly developed uses, or even to low-density residential use, is lost to future agricultural production. As agricultural land is transformed to other uses, the remaining agricultural land in an area is at an increased risk of also being converted.³⁷ At the same time, the loss of good farmland can force farmers to use lower quality land, which results in greater need for fertilizers, pesticides and fuel.

We no longer have the luxury of voluntarily losing farmland. We will need every acre that can be saved from the ravages of climate change to maintain food security. Farm subsidies must be denied those who convert agricultural land to non-agricultural uses, and subsidies must be conditioned on the permanent protection of productive lands.

(2) *Soil Erosion*

Agricultural productivity is not only lost by conversion of farmland to other uses; it is also lost to soil erosion. Good soil taken by wind and water cannot be replaced in any meaningful timeframe. Soil erosion from cropland and pastureland continues to be a major problem in the United States.

Note that total soil erosion rates on U.S. cropland from water and wind decreased 35 percent between 1982 and 2017.³⁸ Soil loss from erosion on U.S. cropland has been calculated to have occurred at the rate of 4.63 tons per acre per year in 2017 (2.67 tons by water erosion and 1.96 tons by

³⁴ JULIA FREEDGOOD ET AL., AM. FARMLAND TR., FARMS UNDER THREAT: THE STATE OF THE STATES 3 (2020), available at https://s30428.pcdn.co/wp-content/uploads/sites/2/2020/09/AFT_FUT_StateoftheStates_rev.pdf.

³⁵ *Id.* at 31.

³⁶ NAT. RES. CONSERVATION SERV., U.S. DEP'T OF AGRIC., SUMMARY REPORT: 2017 NATIONAL RESOURCES INVENTORY, at 5-2 (2020), available at <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/nri/results/> (follow "2017 NRI Summary Report" hyperlink).

³⁷ FREEDGOOD ET AL., *supra* note 34, at 4.

³⁸ NAT. RES. CONSERVATION SERV., *supra* note 36, at 2-8.

wind erosion) as compared to a total rate of 7.13 tons per acre per year in 1982.³⁹

However, despite the decrease in soil erosion, the rate of topsoil loss by erosion in the United States is still significantly greater than the rate of topsoil genesis.⁴⁰ Under the most favorable conditions soil can regenerate only at a rate of about 0.24 tons per acre per year.⁴¹ The rate of new topsoil formation varies greatly depending upon the influences of climate, parent material, topography, organisms and time, but most soil scientists agree that it generally takes at least 100 years to generate an inch of top soil.⁴²

Together with water, soil is the most important component of any agricultural operation. Good soils grow more with less inputs. Strict requirements for controlling soil erosion and overgrazing must be imposed, again with the denial of subsidies to those operators who fail to comply.

(3) *Conservation of Water Resources*

Water is like land. Both are finite. No new land or water can be created. What we have can be used and transformed, but nothing can be added to the inventory.

Water and agricultural land go hand in hand. Without the former, the latter is useless. Climate change is shifting rainfall patterns and making dryland farming riskier in many places.⁴³ Climate change is also reducing available supplies of irrigation water.⁴⁴ Western snow packs for example have been below average in recent years and melt sooner due to warming temperatures.⁴⁵ Growing urban populations are competing with agriculture for these reduced supplies.

³⁹ *Id.*

⁴⁰ See Kurt Lawton, *Economics of Soil Loss*, FARMPROGRESS (Mar. 13, 2017), <https://www.farmprogress.com/soil-health/economics-soil-loss>; see Nat. Res. Conservation Serv., *Soil Formation*, U.S. DEP'T AGRIC., https://www.nrcs.usda.gov/wps/portal/nrcs/detail/wa/soils/?cid=nrcs144p2_036333 (last visited Mar. 13, 2021) [hereinafter *Soil Formation*].

⁴¹ Lawton, *supra* note 40.

⁴² *Soil Formation*, *supra* note 40.

⁴³ See AGRIC. RESEARCH SERV., U.S. DEP'T OF AGRIC., TECHNICAL BULL. 1935, CLIMATE CHANGE AND AGRICULTURE IN THE UNITED STATES: EFFECTS AND ADAPTATION 56–57 (2013), available at

[https://www.usda.gov/sites/default/files/documents/CC%20and%20Agriculture%20Report%20\(02-04-2013\)b.pdf](https://www.usda.gov/sites/default/files/documents/CC%20and%20Agriculture%20Report%20(02-04-2013)b.pdf).

⁴⁴ See *id.* at 57–58.

⁴⁵ See *id.* at 58.

Agricultural irrigation is practiced in most areas of the U.S. with the amount of water withdrawn for irrigation greater in those areas where rainfall is not enough to meet crop needs.⁴⁶ Irrigation withdrawals in the drier 17 conterminous western states comprised 81% of total U.S. irrigation withdrawals in 2015 and represented 74% of the irrigated acres in the U.S.⁴⁷ The latest published data from the United States Geological Survey shows that in 2015 irrigation withdrawals accounted for 42% of total freshwater withdrawals in the nation.⁴⁸ This consisted of about 34.7 million acres irrigated with sprinkler systems, 23.3 million acres with surface (flood) water and 5.49 million acres with micro-irrigation systems.⁴⁹ The use of more water-efficient irrigation systems has continued to increase over time with 10% more acres being irrigated with sprinkler systems and 19% more acres using micro-irrigation systems in 2015 than 2010.⁵⁰

The total amount of water used for agricultural irrigation has increased dramatically during the last half of the twentieth century and the beginning of the twenty-first. In 1950 about 90 billion gallons of water were withdrawn daily for irrigation, compared to a high of over 140 billion gallons daily in 1980 and to somewhat less than 120 billion gallons daily in 2010 and 2015.⁵¹ Water resources are insufficient to sustain this trend. Indeed, the amount of available irrigation water will decline with the effects of climate change and with increased urban demand.

Farm subsidies must be conditioned on the use of the most efficient irrigation technologies available and on the production of crop varieties requiring the least water. All agricultural water use must be metered and reported. Farm subsidies should be reduced and eventually eliminated for farmers who engage in excessive water use.

⁴⁶ See *Water Use in the U.S., 2015*, U.S. GEOLOGICAL SURV., <https://labs.waterdata.usgs.gov/visualizations/water-use-15/index.html#view=USA&category=industrial> (last visited Mar. 13, 2021).

⁴⁷ CHERYL A. DIETER ET AL., U.S. GEOLOGICAL SURV., CIRCULAR 1441, ESTIMATED USE OF WATER IN THE UNITED STATES IN 2015, at 28 (2018), *available at* <https://pubs.usgs.gov/circ/1441/circ1441.pdf>.

⁴⁸ *Id.* at 1.

⁴⁹ *Id.* at 27.

⁵⁰ *Id.* at 54.

⁵¹ *Id.* at 53.

(4) Carbon Sequestration

Trees and permanent grasslands can sequester significant amounts of carbon.⁵² Certain cropping practices can do so as well. The USDA Natural Resource Conservation Service (NRCS) recommends over 30 on-farm conservation practices to improve soil health and carbon sequestration.⁵³ These include conservation cover vegetation, residue and tillage management (includes no-till), contour buffer strips, herbaceous wind barriers, grassed waterways, silvopasture establishment, and forage and biomass planting.⁵⁴ These various conservation practices, while improving soil health and sequestering carbon, provide significant additional benefits to the soil environment such as: “increased water retention, hydrological function, biodiversity, and resilience.”⁵⁵

The two main issues with on farm carbon sequestration, however, are amount and permanence.⁵⁶ Farm subsidies should be provided to farmers who implement practices that promote carbon sequestration but only when the amounts of carbon sequestered can be accurately measured and only when assurances are in place that the carbon will not be released back into the atmosphere without the sequestration of an equal or greater amount of carbon through the use of additional practices. And, farmers should not be paid to sequester the same carbon more than once. Farmers who fail to adopt required carbon sequestration practices or who fail to permanently sequester the amount of carbon promised should lose eligibility for all subsidies.

⁵² See Kat Kerlin, *Grasslands More Reliable Carbon Sink Than Trees*, U. CALIF. DAVIS (July 9, 2018), <https://climatechange.ucdavis.edu/news/grasslands-more-reliable-carbon-sink-than-trees/>.

⁵³ See *Carbon Farming*, CARBON CYCLE INST., <https://www.carboncycle.org/carbon-farming/> (last visited Mar. 13, 2021).

⁵⁴ Nat. Res. Conservation Serv., *GHG and Carbon Sequestration Ranking Tool: NRCS Practice Standards for Greenhouse Gas Emission Reduction and Carbon Sequestration*, U.S. DEP'T AGRIC., <https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/air/?cid=stelprdb1044982> (last visited Mar. 13, 2021).

⁵⁵ See *Carbon Farming*, *supra* note 53.

⁵⁶ See James Temple, *Why We Can't Count on Carbon-Sucking Farms to Slow Climate Change*, MIT TECH. REV. (June 3, 2020), <https://www.technologyreview.com/2020/06/03/1002484/why-we-cant-count-on-carbon-sucking-farms-to-slow-climate-change/>.

III. Enforcement

Congress can legislate all the farm subsidy conditions it wants, but if these conditions are not strictly enforced by USDA or other agencies, few public benefits will accrue. Eligibility requirements under the existing farm legislation have become in many cases paper exercises with few field inspections and even fewer actions to enforce compliance.⁵⁷

A prime example of this are the highly erodible lands conservation (HELC) and wetlands conservation (WC) conditions for farm payment eligibility.⁵⁸ Together these are known as the conservation compliance requirements. Farmers must certify compliance with these requirements by filing an AD-1026 form with USDA's Farm Service Agency (FSA).⁵⁹ The form asks several yes or no questions about compliance status of the land being farmed.⁶⁰

Few farmers ever answer that they are not in compliance. Most farms were inspected many years ago to determine initial compliance with the HELC, WC requirements, but absent complaints by neighbors or perhaps wildlife agencies, few follow up inspections are ever made.⁶¹ The farmer self-certifications of compliance are generally not challenged.⁶² Farmers can farm highly erodible soils or fill in small wetlands with little chance of being caught.

Another example is the Conservation Stewardship Program (CSP) administered by USDA's Natural Resources Conservation Service (NRCS).⁶³ CSP pays farmers to implement farming practices and techniques that conserve soil and water resources.⁶⁴ Many of the practices NRCS pays farmers to do, they were doing already. Farmers are required to sign contracts committing to these practices in return for substantial

⁵⁷ See NAT'L SUSTAINABLE AGRIC. COAL., ENFORCEMENT OF CONSERVATION COMPLIANCE FOR HIGHLY ERODIBLE LANDS 1, 3–7 (2018), available at <https://sustainableagriculture.net/wp-content/uploads/2018/06/CFRA-NSAC-Conservation-compliance-special-report.pdf>.

⁵⁸ See 16 U.S.C.A. §§ 3811, 3821 (Westlaw through Pub. L. No. 116-259).

⁵⁹ Farm Serv. Agency, *Conservation Compliance*, U.S. DEP'T AGRIC., https://www.fsa.usda.gov/programs-and-services/payment-eligibility/conservation_compliance/index (last visited Mar. 13, 2021).

⁶⁰ FARM SERV. AGENCY, U.S. DEP'T OF AGRIC., AD-1026, HIGHLY ERODIBLE LAND CONSERVATION (HELC) AND WETLAND CONSERVATION (WC) CERTIFICATION 1 (2014), available at <https://www.farmers.gov/sites/default/files/documents/Form-AD1026-Highly-Erodible-Land.pdf>.

⁶¹ See NAT'L SUSTAINABLE AGRIC. COAL., *supra* note 57, at 1, 3–7.

⁶² See *id.*

⁶³ 16 U.S.C.A. § 3839aa-22 (West through Pub. L. No. 116-259).

⁶⁴ Nat. Res. Conservation Serv., *CSP – Learn More*, U.S. DEPT. AGRIC., <https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/financial/csp/?cid=nr-cseprd1288524> (last visited Mar. 17, 2021).

payments.⁶⁵ However, NRCS does very little to monitor compliance with the contract requirements and even less to quantify the environmental benefits of such practices on the farms subject to the contracts.⁶⁶ We simply don't know what public benefits we are actually receiving from these payments.

Recent legislation introduced in Congress that would promote carbon farming as a solution to climate change raises enforcement issues. Rep. Josh Harder (D-Calif.) has introduced a bill that would set up a \$2.5 billion grant fund to help farmers invest in more fuel efficient vehicles, sequester carbon in their soil, and make other changes aimed at cutting greenhouse gas emissions.⁶⁷ On the Senate side, the proposed Growing Climate Solutions Act of 2020 (Braun) would create a program that would permit farmers to sell carbon credits to polluting industries based on the farmers' on-farm carbon sequestration practices.⁶⁸

Both bills would provide farmers with carbon payments in addition to their farm subsidies. Neither would condition receipt of farm subsidies on participation in the carbon program.⁶⁹ Nor would they condition receipt of carbon payments on compliance with the requirements of the farm subsidy programs.⁷⁰

The enforcement provisions of these bills and other similar legislation bear careful scrutiny. Farmers will love the idea of receiving additional payments for carbon sequestration. They will likely balk at the idea of inspectors regularly visiting their farms to examine their farming practices and measure stored carbon levels. However, without strict compliance and enforcement measures, the amount of carbon claimed to have been sequestered will be highly suspect and public funds wasted. USDA's weak performance on enforcing current conservation and environmental conditions for farm subsidies suggests this outcome unless the new programs come with major management changes at USDA and increased funding to administer all farm subsidy programs.

⁶⁵ *Id.*

⁶⁶ See NAT. RES. CONSERVATION SERV., U.S. DEP'T OF AGRIC., CONSERVATION PROGRAMS MANUAL § 530.83 (2020), available at <https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=44515.wba>.

⁶⁷ Future of Agricultural Resiliency and Modernization Act, H.R. 7482, 116th Cong. (2020); Press Release, Josh Harder, Representative, House of Representatives, Harder Introduces FARM Act to Support Agriculture Efforts to Fight Climate Change (July 6, 2020), <https://harder.house.gov/media/press-releases/harder-introduces-farm-act-support-agriculture-efforts-fight-climate-change>.

⁶⁸ Growing Climate Solutions Act of 2020, S. 3894, 116th Cong. (2020).

⁶⁹ See H.R. 7482; see S. 3894.

⁷⁰ See H.R. 7482; see S. 3894.

IV. Conclusion

Farmers and the public need to stop viewing subsidies as payments to which farmers are entitled simply because they are farmers. Subsidies must be paid only when they are tied to concrete actions that help agricultural production adapt to climate change and that promote food security in the hard times to come. For the billions spent on farmers, the public should receive more than just the profitability of individual farmers or even their economic survival. The money spent should assure that land and water resources necessary for agriculture are preserved for future generations regardless of who is farming the land and that farming techniques and crop and livestock choices adapt to the existential threats we face.

USDA must enforce these eligibility requirements. Otherwise they are useless. If farmers are not willing to comply, they must lose all subsidy payments. Compliance fraud should result in criminal prosecution. Farmers must accept farm program objectives and help USDA to implement these programs, not only because of threat of enforcement but because they too see that the survival of the planet is at stake. The public must get its money's worth for the same reason.

V. Postscript

As this article was undergoing its last editorial changes, Senator Cory Booker introduced the Climate Stewardship Act in the United States Senate.⁷¹ Representative Abigail Spanberger introduced a companion bill in the House the same day.⁷² These bills would appear to represent a major initiative to address climate change in farm and forestry programs to be enacted between now and the next Farm Bill. The current Farm Bill expires in 2023.⁷³

The Climate Stewardship Act would substantially expand funding of existing Farm Bill conservation programs including the Conservation Reserve Program (CRP)⁷⁴, the Environmental Quality Incentives Program (EQIP)⁷⁵, and the Conservation Stewardship Program (CSP)⁷⁶. It adds to these programs the voluntary adoption of “climate stewardship practices” thought to reduce greenhouse gas emissions, enhance carbon sequestration and help farmers adapt to increasing weather volatility.

⁷¹ Climate Stewardship Act, S. _ 117th Cong. (2021)

⁷² H.R. 2534, 117th Cong. (2021-2022).

⁷³ Agriculture Improvement Act of 2018, Pub. L. No. 115-334, 132 Stat. 4490 (2018).

⁷⁴ Climate Stewardship Act, *supra* note 1, at § 101.

⁷⁵ *Id.* at § 102.

⁷⁶ *Id.* at § 103.

The Act does not, however, establish mechanisms for determining the amount and permanence of carbon sequestered through these grant programs nor does it provide explicit funding for enforcement actions to assure that farmers comply with the terms of their climate stewardship practices contracts with USDA.⁷⁷ It does not link eligibility for other farm program subsidies with compliance with climate stewardship practices contracts, and it does not link eligibility for climate stewardship practices contracts with compliance with the existing conservation requirements of the other farm subsidy programs in which farmers participate.⁷⁸ The Act also does not impose stricter payment limitations on the monies received under the contracts.⁷⁹

In short, the Climate Stewardship Act will perpetuate the problems identified in this article. Farmers will receive large sums of money with little accountability as to whether the climate stewardship practices they agree to perform provide actual public benefits. As in the past, most of this money will go to the largest farmers who can afford to engage in these practices without the necessity of a subsidy. They should be willing to engage in farming practices that may help prevent climate change from destroying their farms without being paid to do so. Hopefully, Congress will identify these deficiencies in the Act and adopt amendments to correct them.

⁷⁷ *Id.*

⁷⁸ *Id.* at § 102 – 103.

⁷⁹ *Id.* at § 102(d)