

The Methane Majors: Climate Change and Animal Agriculture in U.S. Courts

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Over two dozen lawsuits have been filed in U.S. courts against fossil fuel companies by state and local government plaintiffs alleging climate harms and deceptions. But there are other central actors beyond these “Carbon Majors” that contribute heavily to the warming climate. Prominent among them is the animal agriculture sector, a significant emitter of greenhouse gases overall and an especially important source of potent methane emissions. Animal agriculture has thus far escaped most climate litigants’ notice. In jurisdictions around the world, though, the industry has begun to face serious legal challenges premised on its role in driving climate change.

After developing a first-of-its-kind comparative survey highlighting the most consequential legal challenges to date, this Article explores the present reality and future possibilities of climate change and animal agriculture litigation in the United States. With lessons and precedents drawn from both foreign and U.S. case law, we chart a variety of strategic courses that those who seek to hold animal agriculture accountable might consider. Given the United States’ outsized role in the global animal agriculture industry and inadequate regulation of its climate harms, climate change and animal agriculture litigation—whether successful in court, the court of public opinion, or both—could prove a powerful driver of climate change adaptation and mitigation

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in the years to come. As this Article demonstrates, a spate of “Methane Majors” cases may be on the horizon.

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I. INTRODUCTION

Ten years ago, Richard Heede coined the term “Carbon Majors” to describe the 90 producers of oil, coal, natural gas, and cement that his ground-breaking research showed had contributed almost two-thirds of carbon dioxide (CO₂) and methane emissions from fossil fuel and cement production and consumption between 1751 and 2010.² Heede’s work provided a new perspective on climate accountability, giving corporate names to those bearing the most responsibility. As Heede observed at the time, the decision-makers leading the Carbon Majors—their CEOs and the ministers of the government-run enterprises among them—“could all fit on a Greyhound bus or two.”³

Together with progress in climate attribution science and the Paris Agreement, Heede’s work galvanized climate litigation.⁴ Such litigation shows promise for addressing gaps left by inadequate regulation and for holding major polluters accountable.⁵ In one line of prominent cases that began in 2017, state and local government plaintiffs have filed over two dozen lawsuits in U.S. courts against

2. Richard Heede, *Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010*, 122 CLIMATIC CHANGE 229, 234 (2014); see *Carbon Majors*, CLIMATE ACCOUNTABILITY INST. (Oct. 8, 2019), <https://climateaccountability.org/carbon-majors> [<https://perma.cc/T39L-VG9P>] (including emissions from fossil fuel combustion, flaring, venting, fugitive or vented methane, own fuel use, and cement).

3. Suzanne Goldenberg, *Just 90 Companies Caused Two-Thirds of Man-Made Global Warming Emissions*, GUARDIAN (Nov. 20, 2013), <https://www.theguardian.com/environment/2013/nov/20/90-companies-man-made-global-warming-emissions-climate-change> [<https://perma.cc/3KUS-8YH4>].

4. Jessica Wentz et al., *Research Priorities for Climate Litigation*, 11 EARTH’S FUTURE 1, 2 (2023).

5. See, e.g., MICHAEL BURGER ET AL., UNITED NATIONS ENV’T PROGRAMME, GLOBAL CLIMATE LITIGATION REPORT: 2023 STATUS REVIEW 4 (2023), https://wedocs.unep.org/bitstream/handle/20.500.11822/43008/global_climate_litigation_report_2023.pdf?sequence=3 [on file with the Journal] (concluding that “litigation is central to efforts to compel governments and corporate actors to undertake more ambitious climate change mitigation and adaptation goals”).

fossil fuel companies, alleging various climate harms and deceptions.⁶ These lawsuits, often referred to as the “Carbon Majors” cases, were initially tied up in removal battles. More recently, though, the government plaintiffs have succeeded in returning the suits to state courts to proceed on the merits.⁷ The first Carbon Majors lawsuits may reach trial this year, perhaps led by a lawsuit filed by Honolulu County against Sunoco.⁸

But the Carbon Majors are not the only central actors driving the warming climate. Other greenhouse gases (GHGs), including methane and nitrous oxide, have shorter atmospheric lifespans than CO₂ but significantly stronger warming effects.⁹ Reducing fossil fuel use without addressing other major sources of these largely neglected GHGs will not achieve necessary reductions of either near-term or long-term warming.¹⁰ The world is thus “simultaneously in two races to avert climate catastrophe.”¹¹

6. *Id.* at 53; Joana Setzer, *Climate Litigation Against “Carbon Majors”: Economic Impacts*, OPEN GLOBAL RIGHTS (July 16, 2020), <https://www.openglobalrights.org/climate-litigation-against-carbon-majors-economic-impacts> [https://perma.cc/G5Y5-ZPTJ]; Misato Sato et al., *Impacts of Climate Litigation on Firm Value* 5–6 (Grantham Research Inst. on Climate Change and Env’t, Working Paper No. 397, 2023), https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2023/05/working-paper-397_-Sato-Gostlow-Higham-Setzer-Venmans.pdf [https://perma.cc/3C7S-YV7X].

7. Korey Silverman-Roati, *Cities, Counties, and States Score Major Procedural Win in Climate Liability Suits Against Fossil Fuel Companies*, CLIMATE L. BLOG (May 12, 2023), <https://blogs.law.columbia.edu/climatechange/2023/05/12/cities-counties-and-states-score-major-procedural-win-in-climate-liability-suits-against-fossil-fuel-companies> [https://perma.cc/S69G-ZQCA].

8. *See City & Cnty. of Honolulu v. Sunoco LP*, 537 P.3d 1173, 1207–08 (2023); BURGER ET AL., *supra* note 5, at 53; Emily Sanders, *Why Honolulu’s Big Oil Lawsuit Just Became ‘The Most Important Climate Case in the United States,’* FAST CO. (Nov. 6, 2023), <https://www.fastcompany.com/90977799/why-honolulu-big-oil-lawsuit-just-became-the-most-important-climate-case-in-the-united-states> [https://perma.cc/BU62-PNAT].

9. *See* discussion *infra* Part II.

10. Gabrielle B. Dreyfus et al., *Mitigating Climate Disruption in Time: A Self-Consistent Approach for Avoiding Both Near-Term and Long-Term Global Warming*, 119 PROC. NAT’L ACAD. SCI. 1, 5 (2022); *see also* Alexa Jay et al., *Overview*, in 2 IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES: FOURTH NATIONAL CLIMATE ASSESSMENT 33, 44 (David Reidmiller et al. eds., 2018).

11. Phil McKenna, *New Study Says World Must Cut Short-Lived Climate Pollutants as Well as Carbon Dioxide to Meet Paris Agreement Goals*, INSIDE CLIMATE NEWS (May 23, 2022), <https://insideclimatenews.org/news/23052022/short-lived-super-climate-pollutants-impact> [https://perma.cc/FN9R-YXR9] (citing Dreyfus et al., *supra* note 10, at 1 (finding that “pairing decarbonization with additional mitigation measures targeting short-lived climate pollutants and N₂O[] slows the rate of warming a decade or two earlier than decarbonization alone,” largely due to the cooling effects of aerosols co-emitted with CO₂)); *cf.* Andy Reisenger et al., *How Necessary and Feasible Are Reductions of Methane Emissions from Livestock to Support Stringent Temperature Goals?*, 379 PHIL. TRANSACTIONS ROYAL SOC’Y A 1, 6 (2021) (“[L]ivestock [methane] emissions . . . act as a highly sensitive lever on the remaining carbon budget.”).

The United Nations (U.N.) Environment Programme (UNEP) has identified rapidly reducing methane as likely the strongest action available to slow climate change and limit its consequences in the near term.¹² Animal agriculture is a significant emitter of GHGs overall (emitting eleven to twenty percent of the global total)¹³ and an especially important source of methane: the industry is responsible for nearly one-third of all anthropogenic methane emissions.¹⁴ As with the Carbon Majors, emerging research points to a handful of meat and dairy companies' predominant role in methane emissions. A 2022 report found that the combined methane emissions of five of the world's largest meat companies and ten of the largest dairy companies "far exceed the entire methane footprint of many countries" and "equate[] to over 80% of the European Union's entire methane footprint."¹⁵

Despite its outsize emissions, animal agriculture has long escaped most litigants' notice. But in jurisdictions around the world, the industry has begun to face serious legal challenges premised on its significant role in driving climate change. While many of these cases rely on statutory protections, such as a French corporate due diligence statute or Danish consumer fraud regulations, others look to the common law as a promising avenue, as in a New Zealand climate tort lawsuit against a major dairy distributor and its primary supplier.¹⁶ Courts have recently issued favorable decisions for the plaintiffs in both the New Zealand¹⁷ and Danish¹⁸ cases, underscoring the

12. A. R. RAVISHANKARA ET AL., UNITED NATIONS ENV'T PROGRAMME, GLOBAL METHANE ASSESSMENT: BENEFITS AND COSTS OF MITIGATING METHANE EMISSIONS 17 (May 6, 2021), <https://www.unep.org/resources/report/global-methane-assessment-benefits-and-costs-mitigating-methane-emissions> [on file with the Journal].

13. See *infra* notes 22–24, 26 and accompanying text for a discussion of the range of estimates.

14. A. R. RAVISHANKARA ET AL., UNITED NATIONS ENV'T PROGRAMME, GLOBAL METHANE ASSESSMENT: SUMMARY FOR DECISION MAKERS 6 (2021), https://www.ccacoalition.org/sites/default/files/resources//2021_Global-Methane-Assessment_summary.pdf [<https://perma.cc/9BFZ-DNRU>].

15. CHANGING MARKETS FOUND. & INST. FOR AGRIC. & TRADE POL'Y, EMISSIONS IMPOSSIBLE: METHANE EDITION 5 (2022), <https://changingmarkets.org/wp-content/uploads/2022/11/Emission-Impossible-Full.pdf> [<https://perma.cc/R6DK-MBHK>] [hereinafter EMISSIONS IMPOSSIBLE METHANE].

16. See discussion *infra* Part III.

17. See *infra* notes 121–135 and accompanying text (discussing the New Zealand Supreme Court's February 2024 rejection of a motion to dismiss, allowing all of the claims to proceed).

18. See *infra* notes 99–102 and accompanying text (discussing the Danish intermediate court's March 2024 finding that a large pork producer had unlawfully misled consumers with its "climate-controlled pig" campaign).

potential viability of this emerging genre of climate litigation.

Even as such litigation has moved forward in foreign courts, it has remained largely—although not entirely—untried in the United States. That may now be changing, as evidenced by the New York Attorney General’s prominent consumer protection lawsuit filed against the meat giant JBS in early 2024.¹⁹ This Article documents this emerging U.S. current of climate change and animal agriculture litigation and considers how litigants might increase its momentum in the future. These questions are particularly important given the magnitude of U.S. animal agriculture’s externalized harms and its virtual immunity from existing federal and state climate change regulation in the United States.²⁰

Part II briefly explains the significant contributions animal agriculture makes to climate change and the insufficient regulation and corporate action that have thus far been addressed to mitigating them. Part III, a first-of-its-kind comparative survey, highlights the most consequential legal challenges to animal agriculture’s climate contributions to date. Many of the legal theories animating these extant cases in other countries are likely invocable in U.S. courts, though some may push the doctrinal boundaries of constitutional, statutory, or common law.

As Part IV shows, the relationship between climate change and animal agriculture in fact already features in some U.S. litigation, especially in suits challenging government actions that buttress the industry. A greater focus on animal agriculture as a target in U.S. climate litigation may now be emerging. With lessons and favorable precedent drawn from both foreign and U.S. case law, Part V charts a variety of strategic courses that litigants who seek to address animal agriculture’s climate harms might consider. Given the United States’ outsized role in the global animal agriculture industry, such litigation—whether successful in court, the court of public opinion, or both—could prove a powerful driver of climate change adaptation and mitigation in the years to come. A spate of “Methane Majors” cases may be on the horizon.²¹

19. *See infra* notes 262–263 and accompanying text.

20. *See infra* notes 45–52 and accompanying text.

21. While this Article focuses on animal agriculture—the largest sectoral source of methane emissions in the United States—climate litigation could also increasingly target other major methane sources, including natural gas systems and landfills, among others. U.S. ENV’T PROT. AGENCY, EPA 430-R-23-002, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990-2021,

II. ANIMAL AGRICULTURE'S UNDERREGULATED EMISSIONS

Animal agriculture is estimated to account for some eleven to twenty percent of total global anthropogenic GHG emissions, as shown in Table 1 below.²² While the U.N. Food & Agriculture Organization's (FAO) latest figure put livestock emissions at about 11 percent of the global total,²³ that number is likely an underestimate; other prominent estimates range from at least 14.5% to as high as nearly 20% of all global emissions.²⁴

at ES-13 (2023), <https://www.epa.gov/system/files/documents/2023-04/US-GHG-Inventory-2023-Main-Text.pdf> [<https://perma.cc/J3R7-EUBQ>] [hereinafter EPA INVENTORY].

22. Dan Blaustein-Rejto & Chris Gambino, *Livestock Don't Contribute 14.5% of Global Greenhouse Gas Emissions*, BREAKTHROUGH INST. (Mar. 20, 2023), <https://thebreakthrough.org/issues/food-agriculture-environment/livestock-dont-contribute-14-5-of-global-greenhouse-gas-emissions> [<https://perma.cc/MH43-QTQ4>] (surveying the range of global estimates available from the United Nations (U.N.) Food & Agriculture Organization (FAO) and leading researchers and noting that these estimates “vary widely based on factors including the year used for estimates, sources of emissions included, and the global warming potential (GWP) values used for methane (CH₄) & nitrous oxide (N₂O)”)).

23. FOOD AND AGRIC. ORG. OF THE UNITED NATIONS, *PATHWAYS TOWARDS LOWER EMISSIONS: A GLOBAL ASSESSMENT OF THE GREENHOUSE GAS EMISSIONS AND MITIGATION OPTIONS FROM LIVESTOCK AGRIFOOD SYSTEMS 4* (2023), <https://www.fao.org/3/cc9029en/cc9029en.pdf> [<https://perma.cc/BE2Y-TBGA>] [hereinafter *PATHWAYS TOWARDS LOWER EMISSIONS*]; see also *Global Livestock Environmental Assessment Model (GLEAM)*, FOOD & AGRICULTURE ORGANIZATION (2023), <https://www.fao.org/gleam/en> [<https://perma.cc/23ZB-DKBK>].

24. See, e.g., Blaustein-Rejto & Gambino, *supra* note 22 (noting that “FAO’s [recent] analysis has several limitations and uncertainties,” and that it may not accurately estimate GHG emissions of grazing and the impacts of deforestation and land-use change); Matthew N. Hayek & Scot M. Miller, *Underestimates of Methane from Intensively Raised Animals Could Undermine Goals of Sustainable Development*, 2021 ENVIRON. RES. LETT. 16, 7 (2021); see also Richard Twine, *Emissions from Animal Agriculture—16.5% Is the New Minimum Figure*, 13 SUSTAINABILITY 1 (2021) (identifying flaws and inconsistencies that led to the understatement of animal agriculture’s emissions contribution in FAO’s previous estimates). Some observers have raised concerns about the decrease in the FAO estimates over time, with ex-FAO officials complaining of pressure from industry groups. Arthur Neslen, *Ex-Officials at UN Farming Body Say Work on Methane Emissions Was Censored*, GUARDIAN (Oct. 20, 2023), <https://www.theguardian.com/environment/2023/oct/20/ex-officials-at-un-farming-fao-say-work-on-methane-emissions-was-censored> [<https://perma.cc/H3FL-8VJJ>]; GRAIN & INST. FOR AGRIC. & TRADE POL’Y, *EMISSIONS IMPOSSIBLE: HOW BIG MEAT AND DAIRY ARE HEATING UP THE PLANET* (July 18, 2018), <https://grain.org/article/entries/5976-emissions-impossible-how-big-meat-and-dairy-are-heating-up-the-planet> [<https://perma.cc/2TL6-4ERA>] [hereinafter *EMISSIONS IMPOSSIBLE MEAT AND DAIRY*]. The FAO noted in a December 2023 report that both its own modeling approach and the estimates “published in current literature” produce “fairly similar” results that together “suggest that the contribution of livestock to total anthropogenic emissions is 12 to 16 percent.” *PATHWAYS TOWARDS LOWER EMISSIONS*, *supra* note 23, at 8. Even if the FAO’s estimate of net GHG emissions is correct, it may still understate the importance of animal agriculture to the climate because of the carbon opportunity cost of land use for animal agriculture. If land currently devoted to grazing livestock and growing animal feed were restored to native ecosystems, the resulting carbon sequestration in soil and vegetation could offset about

At any of these levels, animal agriculture's emissions are significant. Even if GHG emissions from fossil fuels were rapidly reduced, "global food system emissions"—which are largely driven by animal agriculture—would still impede achievement of the Paris Agreement's 1.5°C target.²⁵

Table 1: Prominent Estimates of Livestock GHG Emissions in CO₂ Equivalents as a Percentage of Global Emissions²⁶

Source (Year of Publication)	Estimate (%)	Period of Emissions Data
FAO (2023)	11.2	2015
FAO (2013)	14.5	2005
Poore & Nemecek (2018)	15.0	2009–2011
FAO (2017)	15.6	2010
FAO (2006)	17.8	2001–2004
Xu et al. (2021)	19.6	2007–2013

a decade's worth of fossil fuel emissions. See Matthew Hayek et al., *The Carbon Opportunity Cost of Animal-Sourced Food Production on Land*, 4 NATURE SUSTAINABILITY 21, 21 (Jan. 2021).

25. See Michael A. Clark et al., *Global Food System Emissions Could Preclude Achieving the 1.5° and 2°C Climate Change Targets*, 370 SCIENCE 705, 705 (2020); PETER H. LEHNER & NATHAN A. ROSENBERG, FARMING FOR OUR FUTURE: THE SCIENCE, LAW, AND POLICY OF CLIMATE-NEUTRAL AGRICULTURE 43 (2021).

26. The examples in Table 1 are drawn from a survey by Dan Blaustein-Rejto and Chris Gambino of the Breakthrough Institute, *supra* note 22. Each study provides estimates of animal agriculture sector emissions, allowing Blaustein-Rejto and Gambino to calculate them as a percentage of the global total. The cited FAO studies are PATHWAYS TOWARDS LOWER EMISSIONS, *supra* note 23, at 4 (estimating livestock emissions as 12% of 2015 global emissions); P.J. GERBER ET AL., FOOD AND AGRIC. ORG. OF THE UNITED NATIONS, TACKLING CLIMATE CHANGE THROUGH LIVESTOCK xii, 15 (2013), <https://www.fao.org/3/i3437e/i3437e.pdf> [<https://perma.cc/NS5P-CGRE>] [hereinafter TACKLING CLIMATE CHANGE] (estimating livestock emissions as 14.5% of 2004 global emissions); FOOD AND AGRIC. ORG. OF THE UNITED NATIONS, LIVESTOCK'S LONG SHADOW: ENVIRONMENTAL ISSUES AND OPTIONS xxi, 112 (2006), <https://www.fao.org/3/a0701e/a0701e.pdf> [<https://perma.cc/TF32-BAVC>] [hereinafter LIVESTOCK'S LONG SHADOW] (estimating livestock emissions as 18% of global total emissions). The two non-FAO studies cited are Xiaoming Xu et al., *Global Greenhouse Gas Emissions from Animal-Based Foods Are Twice those of Plant-Based Foods*, 2 NATURE FOOD 724 (2021), and J. Poore & T. Nemecek, *Reducing Food's Environmental Impacts Through Producers and Consumers*, 360 SCIENCE 987 (2018). Blaustein-Rejto and Gambino calculate that Xu et al.'s estimate would drop to 16.1% of global emissions if CO₂ emissions from grazing land management were excluded. Blaustein-Rejto & Gambino, *supra* note 22.

In the United States, according to the U.S. Environmental Protection Agency (EPA), agriculture (excluding land conversion and fossil-fuel combustion²⁷) produces about one-tenth of GHG emissions.²⁸ *Animal* agriculture, including feed production, is responsible for almost 80% of all U.S. agricultural emissions.²⁹ The United States is the world's largest producer of beef and veal (about 20% of the global total) and chicken (over 20%), and the third-largest producer of pork (about 11%).³⁰ The industry claims the lives of staggering numbers of animals: in 2022, at least 34 million cattle and calves, 125 million hogs, and 9.5 billion chickens were slaughtered at U.S. plants.³¹

The industry produces GHGs in multiple ways. While enteric fermentation (the digestive process by which ruminant animals—such as cattle, sheep, and goats—produce methane) is especially notable, farming any animal (including non-ruminants, such as chickens) results in significant emissions from sources including land use changes, manure management, and the aforementioned production of feed.³² While animal agriculture is responsible for significant CO₂ emissions, its emissions of the climate super-pollutants nitrous oxide and methane are of particular concern, due primarily to their potency as warming agents. Nitrous oxide—more than half of which is at-

27. LEHNER & ROSENBERG, *supra* note 25, at 41.

28. EPA INVENTORY, *supra* note 21, at 2-21.

29. LEHNER & ROSENBERG, *supra* note 25, at 43.

30. *Top Countries by Commodity: Latest Forecast on File*, U.S. DEP'T AGRIC., <https://apps.fas.usda.gov/psdonline/app/index.html#/app/topCountriesByCommodity#chart> 28 [on file with the Journal] (last visited Feb. 4, 2024).

31. NATIONAL AGRIC. STAT. SERV. ET AL., LIVESTOCK SLAUGHTER 5 (Jan. 2023), <https://usda.library.cornell.edu/concern/publications/rx913p88g?locale=en> [https://perma.cc/7G8P-A3ZY]; NATIONAL AGRIC. STAT. SERV. ET AL., POULTRY SLAUGHTER 2 (Jan. 2023), <https://downloads.usda.library.cornell.edu/usda-esmis/files/3197xm04j/qj72qk47v/xs55nr58z/psla0223.pdf> [https://perma.cc/5LVC-7]Q7].

32. LIVESTOCK'S LONG SHADOW, *supra* note 26, at xxi; Shi Feng et al., *A Comprehensive Continental-Scale Analysis of Carbon Footprint of Food Production: Comparing Continents Around the World*, 426 J. CLEANER PROD. 1, 1 (2023) ("[T]he average carbon footprint of plant-based foods amounts to . . . only 10.7% of animal-based foods[.]"); Michael Dent, *The Meat Industry Is Unsustainable*, IDTECHEX (Mar. 25, 2020) <https://www.idtechex.com/en/research-article/the-meat-industry-is-unsustainable/20231> [https://perma.cc/AH44-KH57] ("Chicken is the most efficient form of meat, but still requires 9 calories of energy to produce 1 calorie of meat and 5 g of protein to produce 1 g of protein. Pork is less efficient, requiring 10 calories of feed to produce 1 calorie of meat."). Chicken production is a significant driver of other environmental problems, including aquifer depletion. See, e.g., Christopher Flavelle, *How America's Diet Is Feeding the Groundwater Crisis*, N.Y. TIMES (Dec. 24, 2023), <https://www.nytimes.com/interactive/2023/12/24/climate/groundwater-crisis-chicken-cheese.html> [https://perma.cc/YYM6-VHRK].

tributable to livestock production, according to a U.N. estimate³³—is around 280 times more powerful than carbon dioxide as a warming agent during its first twenty years in the atmosphere.³⁴ Animal agriculture is responsible for approximately 36% of anthropogenic methane emissions in the United States, and about a third globally.³⁵ Methane is about 80 times more potent than carbon dioxide during its first twenty years in the atmosphere.³⁶ But, while carbon dioxide can persist for hundreds or even thousands of years and nitrous oxide for about 120 years,³⁷ the average methane molecule exists in the atmosphere for only about a decade.³⁸ This presents an exceptional mitigatory opportunity that has brought the need to rapidly reduce methane emissions into increasing focus. Per UNEP:

Methane has accounted for roughly 30 per cent of global warming since pre-industrial times and is proliferating faster than at any other time since record keeping began in the 1980s . . . [R]educing methane emissions now would have an impact in the near term and is critical for helping keep the world on a path to 1.5°C.³⁹

As one of the lead reviewers of the U.N. Intergovernmental Panel on Climate Change's Sixth Assessment Report observed: "Cutting methane is the biggest opportunity to slow warming between now and 2040."⁴⁰ Because both methane and nitrous oxide decay relatively rapidly as compared to CO₂, a "global phaseout" of animal agriculture over the next fifteen years "would have the same effect, through the

33. TACKLING CLIMATE CHANGE, *supra* note 26, at 15 (relying on 2004 and 2005 data).

34. Piers Forster et al., *The Earth's Energy Budget, Climate Feedbacks and Climate Sensitivity*, in CLIMATE CHANGE 2021: THE PHYSICAL SCIENCE BASIS. CONTRIBUTION OF WORKING GROUP I TO THE SIXTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 923, 1017 (Valérie Masson-Delmotte et al. eds., 2021).

35. EPA INVENTORY, *supra* note 21, at ES-19; LEHNER & ROSENBERG, *supra* note 25, at 41; *Methane Emissions Are Driving Climate Change: Here's How to Reduce Them*, U.N. ENV'T PROGRAMME (Aug. 20, 2021), <https://www.unep.org/news-and-stories/story/methane-emissions-are-driving-climate-change-heres-how-reduce-them> [<https://perma.cc/R6UL-85L2>] [hereinafter UNEP, METHANE EMISSIONS].

36. Forster et al., *supra* note 34, at 1017.

37. *Overview of Greenhouse Gases*, ENV'T PROT. AGENCY (Oct. 19, 2023), <https://www.epa.gov/ghgemissions/overview-greenhouse-gases> [<https://perma.cc/HZ8C-9X7N>].

38. *Understanding Global Warming Potentials*, ENV'T PROT. AGENCY (Apr. 18, 2023), <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials> [<https://perma.cc/6T4E-8YJ8>]; UNEP, METHANE EMISSIONS, *supra* note 35.

39. UNEP, METHANE EMISSIONS, *supra* note 35.

40. Fiona Harvey, *Reduce Methane or Face Climate Catastrophe, Scientists Warn*, GUARDIAN (Aug. 6, 2021), <https://www.theguardian.com/environment/2021/aug/06/reduce-methane-or-face-climate-catastrophe-scientists-warn> [<https://perma.cc/8UXA-QQML>].

end of the century, as a 68% reduction of CO₂ emissions.”⁴¹ Nonetheless, even though scientific agencies have long described the mitigation potential of methane and other potent yet “short-lived climate pollutants,” most mitigation efforts still center on CO₂.⁴²

To help fill this policy gap, more than 100 countries have adopted the “Global Methane Pledge,” collectively committing to reduce methane emissions by 30% from 2020 levels by 2030.⁴³ But animal agriculture has yet to receive commensurate attention,⁴⁴ including in the United States, where GHG emissions—methane or otherwise—from animal agriculture operations have been largely unregulated.⁴⁵ In 2010, EPA declined to impose Clean Air Act (CAA) permitting requirements on animal agriculture operations.⁴⁶ Beginning that same year, Congress began cementing that exemption with annual appropriations riders prohibiting EPA from requiring animal agriculture operations to obtain CAA permits for GHGs produced by “biological processes associated with livestock production.”⁴⁷ The Biden administration’s 2021 methane emissions reduction plan likewise did not regulate animal agriculture, instead focusing on incentive-based and voluntary approaches,⁴⁸ and EPA did not address animal agriculture when it strengthened regulation of oil and gas methane emissions in

41. Michael B. Eisen & Patrick O. Brown, *Rapid Global Phaseout of Animal Agriculture Has the Potential to Stabilize Greenhouse Gas Levels for 30 Years and Offset 68 Percent of CO₂ Emissions This Century*, PLOS CLIMATE 1, 2-3, 7 (2022) (accounting for both the “emission reduction and biomass recovery” that would result from the phaseout of animal agriculture).

42. Dreyfus et al., *supra* note 10, at 2.

43. See GLOBAL METHANE PLEDGE, <https://www.globalmethanepledge.org> [<https://perma.cc/Y3FP-LDPT>] (last visited Feb. 6, 2024).

44. Although the vast majority of state parties joined a nonbinding sustainable agriculture pledge at the start of COP28, see *COP28 UAE Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action*, COP28, <https://www.cop28.com/en/food-and-agriculture> [<https://perma.cc/J245-QXZJ>] (last visited Feb. 6, 2024), that conference’s final agreement only mentioned agriculture in the context of adaptation, not mitigation. See Conference of the Parties Serving as the Meeting of the Parties to the Paris Agreement, Outcome of the First Global Stocktake, Draft Decision, U.N. Doc. No. FCCC/PA/CMA/2023/L.17 (Dec. 13, 2023).

45. See Note, Ryan Levandowski, *Polluting ‘til the Cows Come Home: How Agricultural Exceptionalism Allows CAFOs Free Range for Climate Harm*, 33 GEO. ENV’T L. REV. 151, 152-53 (2020).

46. Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31,514 (June 3, 2010).

47. See, e.g., Consolidated Appropriations Act, 2023, Pub. L. No. 117-328, Div. G, Title IV, § 436 (Dec. 29, 2022).

48. Office of Domestic Climate Policy, *U.S. Methane Emissions Reduction Action Plan*, WHITE HOUSE 11-12 (Nov. 2021), <https://www.whitehouse.gov/wp-content/uploads/2021/11/US-Methane-Emissions-Reduction-Action-Plan-1.pdf> [<https://perma.cc/3SWT-HRBD>].

late 2023.⁴⁹ Though the Inflation Reduction Act promises billions of dollars in subsidies for “climate-smart” agriculture,⁵⁰ it does not impose new regulatory constraints on animal agriculture, which is exempt from the methane emissions charge the Act imposes on various types of oil and gas facilities.⁵¹ Moreover, in contrast to the incentives created under the Act for alternatives to fossil fuels, there are no incentives for alternatives to animal agriculture.⁵²

Limited public awareness enables this lack of action. For example, a 2023 poll found that two-thirds of U.S. voter respondents either did not believe that eating less meat would lower GHG emissions or were not sure.⁵³ Media coverage of animal agriculture’s climate responsibility has been “historically low,”⁵⁴ even though the individual

49. See Final Rule and Regulatory Text, *Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review*, Docket No. EPA-HQ-OAR-2021-0317 (Nov. 30, 2023) (to be codified at 40 C.F.R. pt. 60).

50. Gabriel Popkin, *The Biden Administration Bets Big on ‘Climate Smart’ Agriculture*, YALE ENV’T 360 (July 13, 2023), <https://e360.yale.edu/features/climate-smart-agriculture-usda> [<https://perma.cc/EGT9-XURZ>].

51. JONATHAN L. RAMSEUR, CONG. RSCH. SERV., R47206, INFLATION REDUCTION ACT METHANE EMISSIONS CHARGE: IN BRIEF 3–4 (Aug. 29, 2022); see also *Fact Sheet: Biden-Harris Administration Hosts White House Methane Summit to Tackle Dangerous Climate Pollution, While Creating Good-Paying Jobs and Protecting Community Health*, WHITE HOUSE (July 26, 2023), <https://www.whitehouse.gov/briefing-room/statements-releases/2023/07/26/fact-sheet-biden-harris-administration-hosts-white-house-methane-summit-to-tackle-dangerous-climate-pollution-while-creating-good-paying-jobs-and-protecting-community-health> [<https://perma.cc/6CZE-USHT>] (describing “the urgent need to dramatically reduce methane emissions, especially from leaks in the oil and gas sector”) (emphasis added).

52. RAMSEUR, *supra* note 51; see also Grace van Deelen, *A Year Later, Inflation Reduction Act Lags on Tackling Ag Emissions*, SENTIENT MEDIA (Sept. 28, 2023), <https://sentientmedia.org/inflation-reduction-act-ag-emissions> [<https://perma.cc/BW86-4P33>].

53. Jess Thomson, *Americans Refuse to Quit Eating Meat*, NEWSWEEK (May 23, 2023), <https://www.newsweek.com/meat-consumption-poll-americans-health-climate-1801864> [<https://perma.cc/9Z2B-AEW8>]; see also Chris Scott, *Beef Sustainability Less of a Consumer Priority: Study*, MEATINGPLACE (Dec. 28, 2023), <https://www.meatingplace.com/Industry/News/Details/112795> (meat industry publication describing recent survey and concluding that “the average U.S. consumer does not have the experience or knowledge to address . . . issues” such as GHG emissions and water use from livestock production) (discussing TED C. SCHROEDER ET AL., KANSAS STATE UNIV. AGRIC. ECON. EXTENSION REP., RANKING CONSUMER BEEF PREFERENCES: SUMMARY REPORT PREPARED FOR THE KANSAS BEEF COUNCIL 5 (Nov. 2, 2023), https://www.kansasbeef.org/Media/KSBeef/Docs/kbc_summary_report_1.pdf [<https://perma.cc/9MRC-HDTG>] (“A surprising 57% of our respondents placed [l]ow carbon beef as [the] least important” of nine beef product attributes.)).

54. Silje Kristiansen et al., *Animal Agriculture and Climate Change in the US and UK Elite Media: Volume, Responsibilities, Causes and Solutions*, 15 ENV’T COMM. 153, 165 (2021); Constanza Arévalo et al., *Animal Agriculture Is the Missing Piece in Climate Change Media Coverage*, SENTIENT MEDIA (May 2023), <https://osf.io/q4evn> [<https://perma.cc/QY4C-54CR>].

actors driving the bulk of these emissions are readily identifiable: five of the world's largest meat and dairy companies combined have been estimated to account collectively for more GHG emissions annually than either Exxon Mobil, Shell, or BP.⁵⁵ Three of them—Tyson Foods, Cargill, and Dairy Farmers of America—are headquartered in the United States, as is the industry's sixth-largest emitter, National Beef.⁵⁶ Tyson's methane emissions alone rival those of Russia, while Dairy Farmers of America emits about as much methane as the United Kingdom.⁵⁷ And if global meat production continues to rise as it has for decades,⁵⁸ emissions are likely to rise as well.⁵⁹ One analysis of major meat and dairy companies found “a clear lack of leadership and commitment when it comes to reducing methane emissions and contributing to global efforts to avoid the worst impacts of climate change.”⁶⁰

These corporate actors have dodged scrutiny in part due to industry-funded efforts to influence government policy and public opinion. Front groups and trade associations have lobbied to prevent meaningful regulation, funded research to downplay the industry's emissions, and conducted sophisticated marketing campaigns to

55. EMISSIONS IMPOSSIBLE MEAT AND DAIRY, *supra* note 24, at 5.

56. Oliver Lazarus et al., *The Climate Responsibilities of Industrial Meat and Dairy Producers*, 165 CLIMATIC CHANGE, at 6 (2021).

57. EMISSIONS IMPOSSIBLE METHANE, *supra* note 15, at 19.

58. Hannah Ritchie, *Meat and Dairy Production*, OUR WORLD IN DATA (Dec. 2023), <https://ourworldindata.org/meat-production> [<https://perma.cc/2FCH-J52U>].

59. A recent analysis showed that twenty of the largest listed meat and dairy producers in the world emitted 3.28% more GHGs in 2023 than in 2022. FAIRR, COLLER FAIRR PROTEIN PRODUCER INDEX 2023/24 at 18 (Nov. 2023), <https://go.fairr.org/2023-Coller-FAIRR-Protein-Producer-Index-Report> [on file with the Journal]. But that figure is incomplete due to companies' limited emissions disclosures. *Id.* at 18. While improvements in the efficacy and uptake of emissions “mitigation measures” could theoretically help reduce emissions even if overall production expands, *see id.* at 21–22, many such measures remain untested and their feasibility uncertain. Daina Bray, *The Climate Problem of Animal Agriculture: What Can Law, Technology, and We Do About It?*, 20 ABA SCITECH LAWYER 12, 15 (Fall 2023); *see also* Julie Creswell, *For Many Big Food Companies, Emissions Head in the Wrong Direction*, N.Y. TIMES (Sept. 22, 2023), <https://www.nytimes.com/2023/09/22/business/food-companies-emissions-climate-pledges.html> [on file with the Journal] (“[T]here are bigger questions hanging over the [beef] industry, including whether existing technologies to reduce emissions in cows actually help or whether they are too costly.”).

60. CHANGING MARKETS FOUND., BLINDSPOT: HOW LACK OF ACTION ON LIVESTOCK METHANE UNDERMINES CLIMATE TARGETS 11 (Oct. 2021), https://changingmarkets.org/wp-content/uploads/2021/10/Blindspot_final.pdf [<https://perma.cc/XF8N-CQMT>] [hereinafter BLINDSPOT].

shape public perceptions of their operations.⁶¹ These tactics have likely delayed the uptake of alternative protein sources,⁶² which could dramatically reduce GHG emissions.⁶³

The industry's negative externalities also include other forms of environmental pollution, biodiversity loss, public health risks, animal cruelty, and the exploitation of workers and farmers.⁶⁴ Solutions to any one of these problems should be considered holistically with attention to the interests of all stakeholders, including nonhuman animals, to avoid "trading off" one harm for another. Climate change is likely to exacerbate each of these other challenges. For example, climate change, like animal agriculture itself, threatens to exacerbate the risk of zoonotic disease outbreaks.⁶⁵ Meanwhile, the interaction of extreme weather (made more likely by climate change) and indus-

61. See, e.g., Viveca Morris & Jennifer Jacquet, *The Animal Agriculture Industry, US Universities, and the Obstruction of Climate Understanding and Policy*, 177 CLIMATIC CHANGE 1, 8–41 (2024); Joe Fassler, *Inside Big Beef's Climate Messaging Machine: Confuse, Defend and Downplay*, GUARDIAN (May 3, 2023), <https://www.theguardian.com/environment/2023/may/03/beef-industry-public-relations-messaging-machine> [<https://perma.cc/2WLX-R2RC>].

62. See Jessica Scott-Reid, *The Backlash to Plant-Based Meat Has a Sneaky, if Not Surprising, Explanation*, SENTIENT MEDIA (July 24, 2023), <https://sentientmedia.org/plant-based-backlash-explained> [<https://perma.cc/DLJ8-2J89>].

63. See Eisen & Brown, *supra* note 41, at 7; see also Peter Scarborough et al., *Vegans, Vegetarians, Fish-Eaters and Meat-Eaters in the UK Show Discrepant Environmental Impacts*, 4 NATURE FOOD 565, 566 (2023) (estimating that, compared to plant-based diets, diets high in meat consumption produce 15.3 times more methane and 3.6 times more nitrous oxide).

64. See generally *Water Contamination from Animal Feeding Operations*, CTRS. FOR DISEASE CONTROL & PREVENTION, <https://www.cdc.gov/healthywater/emergency/sanitation-wastewater/animal-feeding-operations.html> [<https://perma.cc/7SBT-9Z23>] (last visited Feb. 6, 2024); Dani Repogle & Delcianna J. Winders, *Accelerating Catastrophe: Slaughter Line Speeds and the Environment*, 51 ENV'T L. 1277, 1285–92 (2021) (environmental impacts of slaughterhouses); U.N. FOOD & AGRIC. ORG., *THE IMPACT OF LIVESTOCK ON BIODIVERSITY 1* (2019), <https://www.fao.org/3/ca4960en/ca4960en.pdf> [<https://perma.cc/5KL6-CZM7>]; Matthew N. Hayek, *The Infectious Disease Trap of Animal Agriculture*, 8 SCI. ADVANCES 44 (2022); David J. Wolfson & Mariann Sullivan, *Foxes in the Hen House: Animals, Agribusiness, and the Law*, in ANIMAL RIGHTS 205 (Cass R. Sunstein & Martha C. Nussbaum eds., 2005) (cruelty to farmed animals); JOHNS HOPKINS CTR. FOR A LIVABLE FUTURE ET AL., *ESSENTIAL & IN CRISIS: A REVIEW OF THE PUBLIC HEALTH THREATS FACING FARM WORKERS IN THE US* (May 2021), https://clf.jhsph.edu/sites/default/files/2021-05/essential-and-in_crisis-a-review-of-the-public-health-threats-facing-farmworkers-in-the-us.pdf [<https://perma.cc/45LR-XAT7>].

65. ANN LINDER ET AL., ANIMAL MARKETS AND ZOOBOTIC DISEASE IN THE UNITED STATES 26 & n.158 (2023), <https://animal.law.harvard.edu/wp-content/uploads/Animal-Markets-and-Zoonotic-Disease-in-the-United-States.pdf> [<https://perma.cc/TYM4-WC2U>]. The increasing clustering of industrial pig and chicken facilities is especially dangerous: pigs, being "susceptible to both avian and human influenza strains, can serve as mixing vessels to create new viruses" capable of infecting humans. *Id.* at 149–50; Jenny L. Mace & Andrew Knight, *Influenza Risks Arising from Mixed Intensive Pig and Poultry Farms, with a Spotlight on the United Kingdom*, 10 FRONTIERS VETERINARY SCI. 1, 9 (2023).

trial animal agriculture raises troublesome environmental justice implications because large-scale animal agriculture facilities are often sited in low-income communities and communities of color.⁶⁶ Neighbors of such facilities face serious health risks during and after heavy rainfall events, which can cause manure overflow and other discharges that contaminate surface and groundwater.⁶⁷

Despite its significant climate responsibility and the availability of lower-emission alternatives, animal agriculture has so far avoided public condemnation and meaningful regulatory oversight of its climate impacts, preserving itself as “the biggest source of emissions that doesn’t have a target on its back.”⁶⁸ A new generation of climate litigation seeks to change that.

III. THE GLOBAL VANGUARD OF CLIMATE CHANGE AND ANIMAL AGRICULTURE LITIGATION

In many jurisdictions, the persistently inadequate regulation of GHG emissions has inspired a “turn to the courts,” with advocates looking to climate litigation as a “regulatory tool” to increase the urgency and ambition of government and private-sector action.⁶⁹ This strategy has proven effective. To date, more than half of judicial decisions rendered in climate cases around the world have been favorable to climate action.⁷⁰ Moreover, climate litigation may have bene-

66. See Ji-Young Son, et al., *Distribution of Environmental Justice Metrics for Exposure to CAFOs in North Carolina, USA*, 195 ENV’T RSCH. 4 (2021).

67. See, e.g., Arbor J.L. Quist et al., *Hurricane Flooding and Acute Gastrointestinal Illness in North Carolina*, 809 SCI. TOTAL ENV’T 1, 9 (2022); CARRIE HRIBAR, NAT’L ASSOC. OF LOC. BDS. OF HEALTH, UNDERSTANDING CONCENTRATED ANIMAL FEEDING OPERATIONS AND THEIR IMPACT ON COMMUNITIES 7–8 (2010), https://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf [<https://perma.cc/7R2E-PNFF>].

68. Georgina Gustin, *Big Banks Make a Dangerous Bet on the World’s Growing Demand for Food*, INSIDE CLIMATE NEWS (Mar. 7, 2021), <https://insideclimatenews.org/news/07032021/agriculture-banks-climate-change-emissions-meat-dairy-blackrock> [<https://perma.cc/2XWS-9QEA>] (quoting Bruno Sarda, a former executive of CDP, an NGO that facilitates corporate climate disclosures).

69. Jacqueline Peel & Hari M. Osofsky, *Litigation as a Climate Regulatory Tool*, in INTERNATIONAL JUDICIAL PRACTICE ON THE ENVIRONMENT 311, 311 (Christina Voigt ed., 2019).

70. JOANA SETZER & CATHERINE HIGHAM, GRANTHAM RSCH. INST. ON CLIMATE CHANGE AND THE ENV’T & CTR. FOR CLIMATE CHANGE ECON. AND POL’Y, GLOBAL TRENDS IN CLIMATE CHANGE LITIGATION: 2023 SNAPSHOT 4–5 (June 2023), https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2023/06/Global_trends_in_climate_change_litigation_2023_snapshot.pdf [<https://perma.cc/VY3K-JNEA>]; see also Dana Drugmand, *2023 Has Been A Big Year for Climate Accountability in the Courts*, DESMOG (Dec. 26, 2023), <https://www.desmog.com/2023/12/26/2023-has-been-a-big-year-for-climate-accountability-in-the-courts> [<https://perma.cc/X6YP-3J8T>] (“Climate litigation had a momentous year in 2023. Courts worldwide heard evidence

ficial “indirect impacts” even when courts ultimately reject plaintiffs’ claims.⁷¹ Litigation can raise awareness and shape public narratives, thereby encouraging action by policymakers and markets.⁷² The adjudication of a lawsuit may reveal or generate actionable information about climate change’s causes, costs, and solutions.⁷³ The ongoing development of attribution science to prove causation of and allocate liability for climate harms is likely to facilitate additional growth and courtroom success.⁷⁴

At the same time that increasingly creative lawsuits relating to the climate impacts of fossil fuels and other heavy emitting sectors are multiplying around the world,⁷⁵ animal agriculture has come into focus as a major emissions contributor in its own right.⁷⁶ Although climate activists and lawyers in the United States and abroad are paying increasing attention, the range of potentially effective legal challenges to animal agriculture firms and their backers remains underexplored. This is especially notable given that litigation targeting

and arguments at pivotal trials and hearings. Landmark rulings marked progress in holding governments to account for climate inaction or denial, and new climate cases continued to be filed.”).

71. SETZER & HIGHAM, *supra* note 70, at 5. To the extent litigation is “multidimensional” and involves “a variety of audiences” from activists and consumers to students and elected officials, even “litigation loss” may generate new opportunities for advocates to mobilize public support or “appeal to other potential social-change agents.” Douglas NeJaime, *Winning Through Losing*, 96 IOWA L. REV. 941, 947–48 (2010).

72. SETZER & HIGHAM, *supra* note 70, at 4–5; *see also* Robert L. Rabin, *Lawyers for Social Change: Perspectives on Public Interest Law*, 28 STAN. L. REV. 207, 252–54 (1976) (noting litigation’s potential value as a “pedagogical tool” or “educational vehicle” irrespective of a given suit’s outcome); L. Delta Merner, *Climate Litigation and UN Climate Talks: An Important Symbiosis*, UNION OF CONCERNED SCIENTISTS: THE EQUATION (Nov. 6, 2023), <https://blog.ucsusa.org/delta-merner/climate-litigation-and-un-climate-talks-an-important-symbiosis> [<https://perma.cc/BND6-Y4ZU>] (“While [climate litigators and UN climate negotiators] may seem like separate pieces of the climate puzzle, they interact in a symbiotic and mutually reinforcing manner in the collective effort to combat global warming.”).

73. Aisha I. Saad, *Attribution for Climate Torts*, 67 BOSTON COLLEGE L. REV. 867, 923 (2023).

74. *Id.* at 972; *see also* Wentz et al., *supra* note 4, at 3.

75. *See supra* notes 4–8 and accompanying text; *cf.* B. Ekwurzel et al., *The Rise in Global Atmospheric CO₂, Surface Temperature, and Sea Level from Emissions Traced to Major Carbon Producers*, 144 CLIMATIC CHANGE 579, 588 (2017) (building on the Carbon Majors emissions analysis by modeling those emissions’ climate impacts, while noting that “ethical, legal, and historical considerations may further inform discussions about carbon producer responsibilities to contribute to limiting climate change through investment in mitigation, support for adaptation, and compensation for climate damages”).

76. *See discussion supra* Part II.

fossil fuels has already found success and attracted significant philanthropic support.⁷⁷

Several factors may help explain the disparity. Perhaps most fundamentally, “CO₂ from fossil fuels combustion and industrial processes” remains the largest source of GHG emissions driving anthropogenic warming.⁷⁸ Though animal agriculture has been publicly and reliably linked to climate change since at least 2006,⁷⁹ scientific understanding and public awareness of the role of fossil fuels are even more robust and longstanding.⁸⁰ And even though the mechanisms by which animal agriculture emits GHGs have long been understood, some lawyers may perceive those pathways as more difficult to explain to a trier of fact than those of fossil fuels.⁸¹ At the same time, the cultural meaning ascribed to animal agriculture and its products makes challenges to the industry fraught. Some environmental groups may be wary of alienating either courts or the public with what might be seen as a too-close-to-home condemnation of personal dietary choices.⁸² Likewise, ubiquitous narratives of

77. See *supra* note 70 and accompanying text; Camilla Hodgson, *The Money Behind the Coming Wave of Climate Litigation*, FINANCIAL TIMES (June 5, 2023), <https://www.ft.com/content/055ef9f4-5fb7-4746-bebd-7bfa00b20c82> [<https://perma.cc/64EC-V6HT>].

78. See INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2023 SYNTHESIS REPORT 4 (2023), https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_FullVolume.pdf [<https://perma.cc/968X-VL7W>].

79. LIVESTOCK’S LONG SHADOW, *supra* note 26.

80. For example, from its inception, the U.N. Intergovernmental Panel on Climate Change underscored fossil fuel combustion’s outsized contributions to anthropogenic GHG emissions. See INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE: THE IPCC 1990 AND 1992 ASSESSMENTS 57 (1992), https://www.ipcc.ch/site/assets/uploads/2018/05/ipcc_90_92_assessments_far_full_report.pdf [<https://perma.cc/ZN7U-RPP9>]. Scientists had already linked climate change to fossil fuels decades earlier. See Ian Sample, *The Father of Climate Change*, GUARDIAN (June 30, 2005), <https://www.theguardian.com/environment/2005/jun/30/climatechange.climatechangeenvironment2> [<https://perma.cc/QTH8-6CVQ>].

81. Cf. New York Times Climate Desk, *Have Climate Questions? Get Answers Here.*, N.Y. TIMES (updated Sept. 6, 2023), <https://www.nytimes.com/interactive/2023/climate/climate-change-faq.html> [on file with the Journal] (discussing how “ranching and animal agriculture affect climate change,” with no analogous explanation dedicated to fossil fuels).

82. Linnea I. Laestadius et al., *No Meat, Less Meat, or Better Meat: Understanding NGO Messaging Choices Intended to Alter Meat Consumption in Light of Climate Change*, 10 ENV’T COMM. 84, 88 (2014) (summarizing literature suggesting that “NGOs may be reluctant to promote the message that environmentalists should not eat meat” given “the potential unpopularity of messages focused on meat-free diets” and “the cultural significance” and “symbolic nature of meat consumption”); DAVID ROONEY & COURTNEY DILLARD, MERCY FOR ANIMALS, WILLING BUT UNCERTAIN: EXPLORING HESITATIONS, MOTIVATIONS AND PERCEPTIONS OF ANIMAL AGRICULTURE ADVOCACY FROM A NATIONWIDE SURVEY OF ENVIRONMENTAL ORGANIZATIONS (Nov. 2023), https://go.mercyforanimals.org/1/939853/2023-11-30/4945y/939853/1701366193YwInkysU/Willing_but_Uncertain.pdf [on file with the Journal].

traditional, small-scale, widespread, and decentralized agriculture have obscured the true extent of mechanization and market concentration in the industry,⁸³ potentially dissuading would-be plaintiffs who fear antagonizing largely mythic family farmers and prefer the dualistic satisfaction of suits against more thoroughly unsympathetic fossil fuel defendants.⁸⁴

Scholarly literature analyzing climate change litigation globally reflects animal agriculture's relatively minor role in climate lawsuits to date,⁸⁵ but the landscape is starting to change. As Table 2 suggests, climate change and animal agriculture litigation, while still nascent, is diverse and wide-ranging. In recent years, plaintiffs around the world have brought climate-focused claims against private actors involved in animal agriculture.⁸⁶ Allegations related to animal agriculture also feature in a variety of complaints against inadequate policy responses to climate change, which plaintiffs often characterize as violations of constitutional or statutory rights or international legal obligations.⁸⁷ Future litigants concerned with animal agriculture and climate change are likely to derive important strategic insights from these early cases, which are discussed in greater detail below.

To delineate the scope of this discussion, this Article relies first on the same criterion used by the Sabin Center for Climate Change Law

83. See INGOLF VOGELER, *THE MYTH OF THE FAMILY FARM: AGRIBUSINESS DOMINANCE OF U.S. AGRICULTURE* 6 (1981); cf. Hannah Ritchie, *How Many Animals Are Factory Farmed?*, OUR WORLD IN DATA (Sep. 25, 2023), <https://ourworldindata.org/how-many-animals-are-factory-farmed> [<https://perma.cc/88G9-H3T8>] (citing estimates based on USDA data that 99% of U.S. livestock animals are raised on industrial-scale concentrated animal feeding operations, or "CAFOs," as defined by the EPA, including 70% of cows, 98% of pigs and egg-laying hens, 99.9% of turkeys, and 99.97% of broiler (meat) chickens).

84. In a 2023 Gallup poll, 59% of respondents expressed a positive view of the U.S. "farming and agriculture" sector, versus just 24% for the "oil and gas industry." *Business and Industry Sector Ratings*, GALLUP (Aug. 2023), <https://news.gallup.com/poll/12748/business-industry-sector-ratings.aspx> [<https://perma.cc/XVV9-F5GM>].

85. See, e.g., Benoit Mayer, *Prompting Climate Change Mitigation Through Litigation*, 72 INT'L & COMPAR. L.Q. 233 (2023); Pau de Vilchez & Annalisa Savaresi, *The Right to a Healthy Environment and Climate Litigation: A Game Changer?*, 32 YEARBOOK INT'L ENV'T L., no.1 at 18-19 (2023) (collecting cases); Jacqueline Peel & Jolene Lin, *Transnational Climate Litigation: The Contribution of the Global South*, 113 AM. SOC. INT'L L. 679, 682 (2019); Catherine Higham & Honor Kerry, *Taking Companies to Court over Climate Change: Who Is Being Targeted?*, GRANTHAM RSCH. INST. ON CLIMATE CHANGE & THE ENV'T (May 3, 2022), <https://www.lse.ac.uk/granthaminstitute/news/taking-companies-to-court-over-climate-change-who-is-being-targeted> [<https://perma.cc/TJ4N-AZJM>] (briefly noting an increase in "cases against the food and agriculture sector" as evidence of climate litigation's potential role as a "gap filler" where climate action is lacking").

86. See *infra* Sections III(A)-(C), IV(C).

87. See *infra* Sections III(D), IV(A)-(B).

and UNEP, defining climate change litigation to include “cases that raise material issues of law or fact relating to climate change mitigation, adaptation or the science of climate change.”⁸⁸ To be included here, such cases must *also* implicate animal agriculture—for example, as an activity the defendant benefits from or participates in, or as the subject of contested government action (or inaction).⁸⁹ Given the novel character of the field, this Article errs on the side of overinclusion, though it generally excludes litigation that makes “only a passing reference” to climate change or animal agriculture.⁹⁰

Table 2: Early Examples of Climate Change and Animal Agriculture Litigation*

Case (Jur., Year Filed)	Category [^]	Claims	Latest Status
<i>Smith v. Fonterra Coop.</i> (N.Z., 2019)	Tort	Common law torts based on dairy firms’ GHG emissions, including negligence, public nuisance, and breach of a “novel” climate duty	Proceeding to trial after Supreme Court reinstated plaintiff’s claims in 2024
<i>Envol Vert v. Casino Guichard-Perrachon</i> (Fr., 2021)	Cross-Border Theories	Inadequate environmental (including climate) and human-rights due diligence of beef supply chains, violating statutory “duty of vigilance”	Mediation declined; hearings began in 2023
<i>Vegetarian Society of Denmark v. Danish Crown</i> (Den., 2021)	Consumer Protection	Misrepresenting climate impact of pork products in violation of Marketing Practices Act	In 2024, High Court deemed “climate-controlled pig” claim to have violated marketing laws
<i>Global Feedback Ltd. v. Secretary of State</i> (U.K., 2022)	Claims Against Government	Procedural defects in the development of the National Food Strategy, which did not address GHG emissions associated with meat and dairy	Appeals Court ruled in the government’s favor in 2023

88. See BURGER ET AL., *supra* note 5, at 3 (Box 1: Defining Climate Change Litigation).

89. In addition to livestock production itself, animal agriculture as understood in this Article includes other elements of the animal product supply chain, such as public and private investment, feed production, slaughter and processing, and retail distribution.

90. Sabin Ctr. for Climate Change L., CLIMATE CASE CHART, <https://climatecasechart.com/about> [<https://perma.cc/MZ8X-CXLP>] (last visited Oct. 22, 2023).

<i>Comissão Pastoral da Terra v. BNP Paribas</i> (Fr., 2022)	Cross-Border Theories; Financial Claims	Deficient due diligence by major bank in financing foreign meatpacker despite its history of environmental and human-rights abuses	Deemed inadmissible on procedural grounds; related complaint seeking criminal enforcement pending with French national prosecutor
<i>People v. JBS USA Food Co.</i> (U.S., 2024)	Consumer Protection	Inadequately supported climate mitigation (including net-zero) commitments in violation of New York State consumer protection laws	Lawsuit recently filed by N.Y. Attorney General; industry self-regulatory bodies previously found against JBS on related greenwashing complaints

* Each of the cases listed in Table 2 is discussed in more detail *infra* Parts III and IV.

^ Categories correspond to Section headings in Part V.

Each legal system is distinct; a comparative survey is unlikely to deliver easy solutions ready for immediate implementation in the United States, though some “legal transplants” can and do succeed.⁹¹ Nonetheless, as a means of illuminating possibilities and potential obstacles that may emerge (however modified) in U.S. jurisdictions, comparative study is an essential point of departure—*especially* in the dynamic realm of climate litigation.⁹²

As described in this Part, courts have generally been willing to recognize animal agriculture as a significant source of GHG emissions, particularly in suits applying existing regulatory and statutory provisions. Recognition of associated liability could follow, especially if advocates continue to adapt promising litigation strategies to new jurisdictions. We return to this latter prospect in Parts IV and V, which together show that key legal theories remain underutilized, if not entirely untested, in the United States.

In light of litigation’s limitations, this Article also looks beyond the courtroom to consider non-judicial legal mechanisms for encouraging industry reform or demanding government enforcement action, which climate advocates are already using. These alternatives,

91. See Bernhard Grossfeld, *Geography and Law*, 82 MICH. L. REV. 1510, 1519 (1984).

92. See Michael Mehling, *The Comparative Law of Climate Change: A Research Agenda*, 24 REV. EUROPEAN, COMPAR. & INT’L ENV’T L. 341, 346–47 (2015) (“[J]ust as no single jurisdiction can solve climate change alone, it stands to reason that no particular legal system will yield all the insights that can potentially be garnered from academic study . . . [I]f law is to expand our understanding of the possibilities for addressing climate change, we should broaden the analysis to encompass as many different experiences and circumstances as possible, fostering a high level of policy learning and diffusion, and helping avoid costly mistakes.”).

though usually voluntary and non-binding on the firms or agencies targeted, may still allow participants to exert influence over public discourse and market conduct.

A. Correcting Meat and Dairy's Climate Misrepresentations

In a few early cases, animal agriculture companies have started to face consumer protection claims aimed at their climate misrepresentations. The earliest major lawsuit in this arena targeted Danish Crown,⁹³ a major processor of pork (the European Union's largest⁹⁴) and beef, whose global emissions are the equivalent of nearly one-third of Denmark's national total.⁹⁵ In May 2021, in response to a "climate-controlled pig" promotional campaign, three Danish non-governmental organizations (NGOs) sued Danish Crown for misleading consumers by allegedly misrepresenting the carbon footprint of its products in violation of Denmark's Marketing Practices Act.⁹⁶ Following the lawsuit's filing, Danish Crown announced it was ending the use of the "climate-controlled pig" label on its packaging, though it continued to use that terminology on its website⁹⁷ and to defend the campaign as an effort to communicate that its pig suppliers were "actively working to lower their CO₂ footprint."⁹⁸

93. Sabin Ctr. for Climate Change L., *Vegetarian Society of Denmark v. Danish Crown*, CLIMATE CASE CHART, <http://climatecasechart.com/climate-change-litigation/non-us-case/vegetarian-society-et-al-of-denmark-v-danish-crown> [<https://perma.cc/Y3KM-D9AC>] [hereinafter *Danish Crown*].

94. Sanne Wass, *Europe's Biggest Pork Producer Loses in Greenwashing Case*, BLOOMBERG (Mar. 1, 2024 6:34 AM EST), <https://www.bloomberg.com/news/articles/2024-03-01/europe-s-biggest-pork-producer-loses-in-greenwashing-court-case> [on file with the Journal].

95. Lazarus et al., *supra* note 56, at 6.

96. *Danish Crown*, *supra* note 93. The Marketing Practices Act includes what appears to be a capacious prohibition on "misleading actions," extending to the use of "factually correct" information "likely to deceive the average consumer." Lov om markedsføring, LOV nr 426 af 03/05/2017 [Marketing Act] § 5 (Den.), *translated in* Danish Marketing Practices Act § 5(1), <https://www.en.kfst.dk/media/54005/mfl-english.pdf> [<https://perma.cc/62DN-KLAM>].

97. See Danish Crown, *FAQ About Climate-Controlled Pigs*, <https://www.danishcrown.com/usa/sustainability/themes/farmers/faq-about-climate-controlled-pigs> [<https://perma.cc/5GGS-BM7N>] (last visited Nov. 24, 2023).

98. Ryan McCarthy, *Danish Crown Drops "Climate-Controlled" Phrase from Pork Packaging*, MEAT & POULTRY (Oct. 19, 2021), <https://www.meatpoultry.com/articles/25664-danish-crown-drops-climate-controlled-phrase-from-pork-packaging> [<https://perma.cc/BGB7-AUJE>]. In its 2020–2021 annual report, the company acknowledged the pending "climate lawsuit" (as well as a related complaint lodged against it with the Danish Consumer Ombudsman) and claimed to be "actively" participating with authorities and other producers to develop "a code of good climate communication." DANISH CROWN, ANNUAL REPORT 2020/21 at 35 (n.d.) <https://www.danishcrown.com/media/17187/annual-report-2020-2021-en.pdf?6383620472>

Despite Danish Crown's efforts to have the case heard by the lower, more specialized Maritime and Commercial Court, proceedings began in January 2022 in the intermediate Western High Court, which characterized the case as significant "for the application and development of the law."⁹⁹ Testifying at trial in November 2023, a former Danish Crown director revealed that the firm had launched the "climate-controlled pig" campaign without being able to guarantee that products bearing that label had actually been produced using special climate mitigation measures.¹⁰⁰ Another witness, the firm's sustainability director, "admitted that the soy feed given to animals is not all deforestation-free."¹⁰¹ In a March 2024 ruling, the High Court found that Danish Crown had unlawfully misled consumers with its "climate-controlled pig" campaign, though it suggested that future uses of the term might be permissible if adequately supported by emissions reductions.¹⁰²

Danish Crown appears to have been the first in a trend. Sweden's consumer protection agency subsequently brought a case against major European dairy producer Arla Foods, whose global GHG emissions are projected to amount to more than 60 percent of Denmark's entire Nationally Determined Contribution under the Paris Agreement in 2030.¹⁰³ The Swedish Patent and Market Court enjoined the firm from marketing dairy products as having a "net-zero climate footprint."¹⁰⁴ The court found that "the expression 'net zero climate

60000000 [https://perma.cc/4WGY-VXYH] (last visited Feb. 6, 2024). The following year, Danish Crown's contingent liabilities disclosure noted management's view that the litigation's outcome "will not have any significant impact on the group's financial position." DANISH CROWN, ANNUAL REPORT 2021/22 at 69 (n.d.), https://www.danishcrown.com/media/13183/2021-2022_en.pdf?638362047250000000 [https://perma.cc/Z9U8-6CL5] (last visited Feb. 6, 2024).

99. *Danish Crown*, *supra* note 93.

100. See Monica Jørgensen, *Tidligere Direktør fra Danish Crown: Kunne Ikke Klima-Kontrollere Den Enkelte Flæskesteg* [Former Director from Danish Crown: Couldn't Climate Control the Single Roast Pork], DR (Nov. 21, 2023), https://www.dr.dk/nyheder/penge/tidligere-direktoer-fra-danish-crown-kunne-ikke-klima-kontrollere-den-enkelte [https://perma.cc/YJM5-JRMC]; Daniela de Lorenzo, *Danish Pork Firm Sued for 'Greenwashing' in Legal First*, EU OBSERVER (Nov. 24, 2023), https://euobserver.com/inneso/157736 [on file with the Journal].

101. De Lorenzo, *supra* note 100.

102. Vestre Landsret, *Dom i sag om "greenwashing"* (Mar. 1, 2024), https://domstol.dk/vestrelandsret/aktuelt/2024/3/dom-i-sag-om-greenwashing [https://perma.cc/GF2D-74FL]; see also Wass, *supra* note 94 (discussing the decision in English).

103. Lazarus et al., *supra* note 56, at 13.

104. Andy Coyne, *Swedish Court Bans Arla's Net-Zero Advertising Claim*, JUST FOOD (Feb. 6, 2023), https://www.just-food.com/news/swedish-court-bans-arlans-net-zero-advertising [https://perma.cc/G29W-9T2W].

footprint' and similar claims in the marketing of dairy products" misled consumers, notwithstanding Arla's claim that its "promise of net zero [was] based on climate-compensating activities."¹⁰⁵ Arla, which under the Swedish court's judgment faces a fine of nearly 100,000 U.S. dollars if it violates the injunction, has discontinued its net-zero advertising.¹⁰⁶ As discussed below, after some delay, a similar case has now emerged in the U.S. context against JBS,¹⁰⁷ another major emitter.¹⁰⁸

B. Animal Agriculture's Climate Liability at Common Law

Given the vast number of contributors, past and present, to climate change, asserting the direct liability of any individual emitter is a serious but not insurmountable challenge.¹⁰⁹ Of particular relevance to this discussion, a recent decision from the Supreme Court of New Zealand rejected an effort to dismiss climate tort claims against a group of major emitters that includes two animal agriculture companies, allowing the claims to proceed to the merits.

In *Smith v. Fonterra Co-operative Group Limited*, filed in New Zealand in 2019, the climate change spokesperson for the Iwi Chairs' Forum (a Māori advocacy coalition) challenges New Zealand's seven largest greenhouse gas emitters for their contributions to climate change, including two animal agriculture firms: Fonterra Co-operative Group Limited and Dairy Holdings Limited.¹¹⁰ The former is a New Zealand-based, multinational, publicly traded manufacturer and distributor of dairy products, the ninth largest dairy company in

105. *Id.* A Dutch-based self-regulatory body of the advertising industry had already deemed Arla's climate neutrality claims untrue and recommended the company stop so labeling its products in 2022. RECLAME CODE COMMISSIE, 2021/00472 – CVB (July 6, 2022), <https://www.reclamecode.nl/uitspraken/arla/voeding-en-drank-2021-00472-cvb/335095> [<https://perma.cc/FVK9-WQRJ>].

106. Coyne, *supra* note 104.

107. See *infra* notes 262–263 and accompanying text.

108. Lazarus et al., *supra* note 56, at 13 (predicting JBS's global emissions will be equivalent to about 19% of Brazil's Nationally Determined Contribution (NDC) under the Paris Agreement by 2030).

109. Cf. *The People vs. Shell Case*, FRIENDS OF THE EARTH INT'L (May 26, 2021), https://www.foei.org/news/climate_litigation_shell [<https://perma.cc/58AD-SJRE>] (describing a Dutch court ruling that "held Shell liable for causing dangerous climate change").

110. *Smith v. Fonterra Coop.* [2024] NZSC 5; Siena Yates, *Michael Versus the Goliaths*, E-TANGATA (Feb. 18, 2024), <https://e-tangata.co.nz/comment-and-analysis/michael-versus-the-goliaths> [<https://perma.cc/2FZ9-MRAB>]. Researchers expect Fonterra's emissions to exceed New Zealand's entire NDC by 2030, assuming the company continues business as usual. Lazarus et al., *supra* note 56, at 1, 13.

the world; the latter is New Zealand's largest dairy farm operator and Fonterra's primary milk supplier and shareholder.¹¹¹ Smith's allegations against Dairy Holdings are explicitly based on emissions from livestock.¹¹²

Emphasizing the risks posed by climate change to Māori communities' customary interests in coastal lands, Smith pled three tort causes of action: negligence, public nuisance, and a novel "proposed climate system tort" entailing a legally cognizable duty "to cease materially contributing to: damage to the climate system; dangerous anthropogenic interference with the climate system; and the adverse effects of climate change."¹¹³ In addition to declarations of liability, Smith sought injunctions "requiring the respondents to produce or cause a peaking of their emissions by 2025, a particularised reduction in their emissions by the ends of 2030 and 2040 . . . and zero net emissions by 2050"—or, in the alternative, "a (potentially suspended) injunction requiring the respondents to immediately cease" their "net emissions."¹¹⁴

In response to defendants' application to "strike out" (i.e., dismiss) the proceeding, the trial court held that the novel breach of duty claim (but not the negligence or nuisance claims) should be explored at trial.¹¹⁵ The Court of Appeal, however, subsequently dismissed all three causes of action.¹¹⁶ The appellate court reasoned that the negligence claim failed for want of "causal proximity" between Smith and the respondents, noting its wariness of subjecting a potentially "limitless" class of defendants "to indeterminate liability . . . on an

111. FONTERRA, <https://www.fonterra.com/nz/en.html> [https://perma.cc/9K6C-BCA7] (last accessed Mar. 3, 2024); DAIRY HOLDINGS LIMITED, <https://www.dairyholdings.co.nz/about-us> [https://perma.cc/VR64-9S[JZ] (last accessed Mar. 3, 2024); RABOBANK, GLOBAL DAIRY TOP 20, at 1 (Aug. 2023), https://research.rabobank.com/far/en/documents/787790_Rabobank_Global-Dairy-Top-20-2023_Ledman_Aug2023.pdf [https://perma.cc/EM4Q-JGYU].

112. *Smith v. Fonterra Coop.* [2020] NZHC 419 at [6c] ("[Dairy Holdings] operates a large number of dairy farms . . . Livestock on its farms release greenhouse gases as a result of enteric fermentation. Nitrogen dioxide is also released from nitrogen-based fertiliser use."). As to Fonterra, Smith's complaint focused instead on the cooperative's coal-powered factories. *Id.* at [6a] ("Fonterra owns and operates dairy factories . . . that burn coal to generate energy. Fonterra will continue to burn coal in its factories for the foreseeable future. The combustion of coal releases greenhouse gases.").

113. *Smith v. Fonterra Coop.* [2024] NZSC 5 at [4, 7].

114. *Id.* at [12].

115. *Smith v. Fonterra Coop.* [2020] NZHC 419 at [103].

116. *Smith v. Fonterra Coop.* [2021] NZCA 552.

unprecedented scale.”¹¹⁷ A similar concern guided the Court of Appeal in its dismissal of the public nuisance claim, which it found was “untenable”—even under a relatively permissive “nuisance due to many” framework—given the practically infinite and not readily identifiable number of contributors to Smith’s claimed harm.¹¹⁸ Finally, although the trial court had declined to rule out the proposed climate system damage tort as a possible “evolution of the law of torts,” the Court of Appeal dismissed that claim as a “bare assertion,” the recognition of which would be “contrary to the common law tradition.”¹¹⁹ Instead, the Court of Appeal asserted, climate change requires “a sophisticated regulatory response at a national level.”¹²⁰

In a “breakthrough” decision issued in February 2024,¹²¹ the Supreme Court differed, reinstating Smith’s suit and allowing all three causes of action to proceed to trial.¹²² In its decision, the Court focused primarily on the public nuisance cause of action, finding that Smith had a tenable claim to standing under the “special damage” rule based on alleged “damage to coastal land . . . in which he and others he represents claim both a legal interest and distinct tikanga interests.”¹²³ That conclusion has dual significance. First, it affirms the notion—central to much climate litigation across diverse jurisdictions—that, “[w]hile the effects of human-caused climate change are ubiquitous and grave for humanity, their precise impact is distributed and different.”¹²⁴ Second, it reinforces the legitimacy and

117. *Id.* at [103, 116]. The lower court had attributed its rejection of the negligence claim to a lack of “reasonable foreseeability,” but the Court of Appeal disagreed, holding the foreseeability of emissions’ climate impacts to be (unlike proximity) “a trial issue.” *Id.* at [100].

118. *Id.* at [88–93]. The lower court had relied on the “special damage” rule, which precludes advancement of a public nuisance claim absent “particular” and “direct” harm, but the Court of Appeal rejected the lower court’s “but for” causal analysis as unduly restrictive. Compare *Smith v. Fonterra Coop.* [2020] NZHC 419 at [62–63] with *Smith v. Fonterra Coop.* [2021] NZCA 552 at [88–93].

119. *Smith v. Fonterra Coop.* [2021] NZCA 552 at [15, 121–125].

120. *Id.* at [16].

121. Sam Bookman, *Smith v Fonterra: A Common Law Climate Litigation Breakthrough*, CLIMATE L.: A SABIN CTR. BLOG (Feb. 12, 2024), <https://blogs.law.columbia.edu/climatechange/2024/02/12/smith-v-fonterra-a-common-law-climate-litigation-breakthrough> [<https://perma.cc/7F2J-MLGR>] (“Litigation against major corporate [GHG] emitters has proven extremely tough. . . . In *Smith v Fonterra* . . . we have perhaps the biggest common law breakthrough.”).

122. *Smith v. Fonterra Coop.* [2024] NZSC 5 at [2]. As the court repeatedly noted, its “refusal to strike out a cause of action is not a commentary on whether or not the claim ultimately will succeed.” *Id.* at [143].

123. *Id.* at [151–52].

124. *Id.* at [152].

indeed necessity of judicial “engage[ment]” with “tikanga,” or Māori customary law, in Smith’s case and in New Zealand common law more generally.¹²⁵

The Supreme Court concluded its public nuisance analysis by addressing the question of causation that had so vexed the Court of Appeal. The Supreme Court analogized climate change to the industrial revolution, “another existential crisis, albeit one of lesser scale,” with which the common law previously grappled, and drew on a series of “waterway cases suggest[ing] . . . that in the case of public nuisance, a defendant must take responsibility for its contribution to a common interference with public rights” notwithstanding “co-contribution or . . . the equivalent acts of others.”¹²⁶ The Court also intimated that, although “Mr. Smith may face obstacles in obtaining any remedy requiring cessation (by injunction),” his claim for *equitable* (not compensatory) relief might require “a somewhat different approach to connection and causation” than the traditional “attribution of particular loss to a particular action or omission.”¹²⁷ Satisfied that the public nuisance cause of action ought not be struck out, the Court deemed it “neither necessary nor appropriate” for it to “traverse the remaining claims.”¹²⁸ Thus, the negligence claim and the proposed climate system damage tort claim will also proceed to trial.

Throughout the judgment, the Supreme Court appeared to accept—without fanfare—animal agriculture’s presence among the significant sources of anthropogenic GHG emissions complained of in the suit, citing “as common ground” the IPCC’s observations regarding, *inter alia*, atmospheric methane, land use change, and “lifestyle and patterns of consumption and production.”¹²⁹ When the Supreme Court addressed agricultural emissions explicitly, it was to recapitulate Smith’s claim that these emissions “are actually or effectively unconstrained by the current regulatory regime,” since they “are not part of” New Zealand’s Emissions Trading Scheme.¹³⁰ At the time the case was originally filed, methane from agricultural sources—which

125. *Id.* at [182].

126. *Id.* at [164].

127. *Id.* at [171].

128. *Id.* at [174–76].

129. *Smith v. Fonterra Coop.* [2024] NZSC 5 at [13, 16–17] (quoting INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2022: MITIGATION OF CLIMATE CHANGE 40 (2022), https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf [<https://perma.cc/37ZR-4KME>]).

130. *Smith v. Fonterra Coop.* [2024] NZSC 5 at [57].

represented over a third of New Zealand's 2020 GHG emissions¹³¹—was indeed categorically excluded from the government's statutory climate change response, leaving a major gap especially ripe for judicial intervention.¹³² A since-proposed tax that would narrow the gap by effectively imposing a price on agricultural emissions, including both methane and nitrous oxide,¹³³ is now delayed until at least 2026.¹³⁴ Even if it becomes effective, however, “a pathway” will likely remain “open for the common law to operate, develop and evolve,” because the tax proposal arises under New Zealand's 2002 Climate Change Response Act—one of the statutes the Supreme Court specifically found in this decision not to have “displaced the law of torts in the realm of climate change.”¹³⁵

C. Duty of Vigilance: Demanding Supply-Chain Due Diligence

In Europe, national and EU laws increasingly recognize private actors' obligation to conduct supply-chain due diligence. In addition to several commodity-specific due diligence laws proposed or already in force,¹³⁶ the European Union may soon impose broad due dili-

131. See NEW ZEALAND GOVERNMENT, AOTEAROA NEW ZEALAND'S METHANE EMISSIONS REDUCTION ACTION PLAN 6 (2022), <https://www.mfat.govt.nz/assets/Climate-Change-Programme-images/Aotearoa-New-Zealands-Methane-Emissions-Reduction-Action-Plan-Full-Version.pdf> [<https://perma.cc/42UC-TJNH>].

132. Maria Hook et al., *Tort to the Environment: A Stretch Too Far or a Simple Step Forward?* *Smith v. Fonterra Co-operative Group Ltd and Others* [2020] NZHC 419, 33 J. ENV'T L. 195, 197 (2021).

133. MINISTRY FOR THE ENV'T & MINISTRY FOR PRIMARY INDUSTRIES, PRICING AGRICULTURAL EMISSIONS: REPORT UNDER SECTION 215 OF THE CLIMATE CHANGE RESPONSE ACT 2002 4–7 (2022), <https://environment.govt.nz/assets/publications/Pricing-agricultural-emissions-report-under-section-215-of-the-CCRA.pdf> [<https://perma.cc/7ANX-3XHZ>].

134. *Deferral of NZ ETS Reporting Obligations for Animals-Farmer Activities*, N.Z. MINISTRY FOR THE ENV'T, <https://consult.environment.govt.nz/climate/deferral-nz-ets-reporting-for-animals-farmers> [<https://perma.cc/TUC6-PBEK>] (last visited Mar. 19, 2023).

135. *Smith v. Fonterra Coop.* [2024] NZSC 5 at [100–01].

136. *Corporate Due Diligence Laws and Legislative Proposals in Europe: Comparative Table*, EUR. COAL. FOR CORP. JUST. (Mar. 2022), <https://corporatejustice.org/wp-content/uploads/2022/03/Corporate-due-diligence-laws-and-legislative-proposals-in-Europe-March-2022.pdf> [<https://perma.cc/4KUS-STWN>] [hereinafter *Corporate Due Diligence Laws*]; U.K. Dep't for Env't, Food & Rural Affs. et al., *Supermarket Essentials Will No Longer Be Linked to Illegal Deforestation*, GOV'T OF THE U.K. (Dec. 9, 2023), <https://www.gov.uk/government/news/supermarket-essentials-will-no-longer-be-linked-to-illegal-deforestation> [<https://perma.cc/7BPL-95LT>] (announcing corporate due diligence obligations applicable to “beef, leather and soy,” among other commodities); Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the Making Available on the Union Market and the Export from the Union of Certain Commodities and Products Associated with Deforestation and Forest Degradation and Repealing Regulation (EU) No 995/2010, 2023 O.J. (L

gence obligations on the largest EU companies, requiring them to take steps to avoid adverse human rights and environmental impacts throughout their global operations, including by planning for climate change mitigation.¹³⁷

In 2018, France's sweeping "duty of vigilance" law was the first such law to enter into force.¹³⁸ The law requires large companies located in France to establish, implement, and publish an annual "vigilance" plan addressing any risks posed by activities undertaken or controlled by the company to human rights, fundamental liberties, and the health and security of persons and the environment.¹³⁹ The

150) 206 (imposing due diligence requirements on importers of covered commodities, including cattle); Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the Making Available on the Union Market and the Export from the Union of Certain Commodities and Products Associated with Deforestation and Forest Degradation and Repealing Regulation (EU) No 995/2010, 2023 O.J. (L 150) 206 (imposing due diligence requirements on importers of covered commodities, including cattle). Recent bills proposing similar supply chain due diligence measures have attracted bipartisan support in the United States but have thus far fallen short of enactment. *See* FOREST Act of 2023, S. 3371, 118th Cong. (2023) (requiring importers to declare that they have "exercised reasonable care to assess and mitigate the risks that any covered commodity," including cattle, "was produced on land subject to illegal deforestation"); H.R. 6515, 118th Cong. (2023) (same); New York Tropical Deforestation-Free Procurement Act, S.B. S4859A, 2023–2024 Leg. Sess. (N.Y. 2023) (banning the use of tropical hardwoods by state actors and requiring state contractors to certify that certain "tropical forest-risk commodities" in their supply chains, including beef, did not contribute to deforestation); New York Fashion Sustainability & Accountability Act, S. B. 4746, 2023–2024 Leg. Sess. (N.Y. 2023) (requiring major fashion companies that operate in New York to map their supply chains, mitigate negative impacts to human rights and the environment, and disclose and reduce their GHG emissions); *see also* Jenni Ramos & Chancery Lane Project, *The Role of Contracts to Address Environmental Impacts in Supply Chains*, in *CONTRACTS FOR RESPONSIBLE AND SUSTAINABLE SUPPLY CHAINS* 183, 191 (Susan A. Maslow & David V. Snyder eds., 2023) (noting the growth of legislative supply chain due diligence proposals in the European Union and United States).

137. *See* Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and Amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859, 2022/0051 (COD) (Mar. 15, 2024), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CONSIL:ST_6145_2024_INIT [<https://perma.cc/4FW5-72MB>].

138. Loi 2017-399 du 27 mars 2017 relative au devoir de vigilance des sociétés mères et des entreprises donneuses d'ordre (1) [Law 2017-399 of March 27, 2017 related to the duty of vigilance of parent companies and sourcing companies], *JOURNAL OFFICIEL DE LA RÉPUBLIQUE FRANÇAISE* [J.O.] [OFFICIAL GAZETTE OF FRANCE], Mar. 28, 2017, p.1.

139. *Id.* art. 1. The plan must include five statutorily mandated components: "a risk mapping; procedures for a regular assessment of the situation of subsidiaries, subcontractors or suppliers; measures to mitigate risks and prevent serious harm; a mechanism for alerting and collecting reports; a mechanism to monitor and evaluate the effectiveness of measures taken." *See* MATTHIAS DE JUVENEL, MINISTÈRE DE L'ÉCONOMIE DES FINANCES ET DE LA SOUVERAINETÉ INDUSTRIELLE ET NUMÉRIQUE, MISSION TO MONITOR THE IMPLEMENTATION OF THE DUTY OF VIGILANCE ACT, https://www.economie.gouv.fr/files/files/directions_services/cge/Duty-of-Vigilance.pdf [on file with the Journal] (last visited Feb. 6, 2024).

law, which allows concerned parties to sue to enjoin compliance, requires companies to consider not only their own operations but also those of their subsidiaries, subcontractors, and suppliers.¹⁴⁰ Regulated firms may incur fault-based civil liability for injuries that can be causally linked to inadequate vigilance,¹⁴¹ from the climate and human-rights harms invoked in the cases discussed below to the health and environmental impacts of global plastic pollution alleged in an analogous suit against consumer-goods conglomerate Danone.¹⁴²

In March 2021, nearly a dozen NGOs, including the environmental group Envol Vert and Indigenous representatives, sued the French retail group Casino. The claimants cited numerous deficiencies in the company's vigilance plans and alleged the "implication" of Casino and its subsidiaries in systematic environmental and human rights violations caused by livestock operations in Brazil and Colombia.¹⁴³ An Envol Vert investigation had shown that Casino's meat suppliers were involved in "illegal deforestation and land grabbing practices," leading to the service of "formal notice to Casino" demanding the adoption of "adequate and effective vigilance measures . . . in its beef supply chains."¹⁴⁴ According to the complaint, Casino's vigilance plans remained insufficient, both in terms of specificity and substance, to address the heightened human, climatic, and ecological risks associated with the cattle industry, including deforestation, forced labor, and the appropriation of Indigenous lands.¹⁴⁵ Along with other relief, the claimants seek an injunction requiring Casino

140. DG TRÉSOR, MINISTÈRE DE L'EUROPE ET DES AFFAIRES ÉTRANGÈRES, NEW LAW ON THE DUTY OF VIGILANCE OF PARENT COMPANIES AND ON ITS AFFILIATED ENTITIES (2017), https://www.diplomatie.gouv.fr/IMG/pdf/law_on_the_duty_of_vigilance_cle8b1211.pdf [<https://perma.cc/F44Y-TSRU>].

141. *Corporate Due Diligence Laws*, *supra* note 136, at 2.

142. *See We're Taking Danone to Court over Plastic Pollution*, CLIENTEARTH (May 10, 2023), <https://www.clientearth.org/latest/latest-updates/news/we-ve-issued-legal-warnings-to-nestle-danone-and-others-over-plastic> [<https://perma.cc/5YGY-YCZ3>].

143. Assignment at 8, *Envol Vert v. Casino Guichard-Perrachon*, Saint-Étienne Judicial Court (2021) (Fr.).

144. ALEJANDRO GARCÍA ESTEBAN & CHRISTOPHER PATZ, EUR. COAL. FOR CORP. JUST., *SUING GOLIATH* 32 (2021), <https://corporatejustice.org/wp-content/uploads/2021/09/Suing-Goliath-FINAL.pdf> [<https://perma.cc/M72E-WKNY>].

145. Assignment at 42, *Envol Vert v. Casino Guichard-Perrachon*, Saint-Étienne Judicial Court (2021) (Fr.). In addition to the "duty of vigilance" statute, the complaint rests on France's Environmental Charter (which has been interpreted by the Constitutional Council to impose a general obligation of environmental vigilance) and on provisions of France's civil code imposing liability for damages caused by an affirmative act or by negligence or recklessness. *Id.* at 63.

to develop and publish a more robust vigilance plan, with monetary penalties in case of delay,¹⁴⁶ and a court-ordered moratorium on the distribution of Amazonian beef by Casino's subsidiaries.¹⁴⁷

At the judge's behest, the parties considered mediation, but in late 2022 the plaintiff coalition declined alternative dispute resolution in order "to avoid unnecessary delays in reaching a judicial decision," which the coalition characterized as the "only way to force the Casino group to take real measures to stop more damage."¹⁴⁸ Hearings began in early 2023, with additional Indigenous representatives having joined the plaintiff coalition.¹⁴⁹ In the meantime, the lawsuit has already heightened scrutiny of Casino's operations. A more recent investigation revealed that the firm's supply chain remains tainted with animals farmed on indigenous and protected lands, undercutting Casino's claims in court that it exercises adequate due diligence.¹⁵⁰

Another animal agriculture-related climate action arising under the same law began in October 2022, when French NGO Notre Affaire à Tous and the Brazilian NGO Comissão Pastoral da Terra sent a notice of intent to sue the European banking giant BNP Paribas (BNP) for financing cattle operations in Brazil, which the demand characterized as having "dramatic" climate consequences.¹⁵¹ The case focuses in particular on BNP's financing of Marfrig, Brazil's second-largest meatpacker, despite Marfrig's history of environmental and human-rights abuses¹⁵² and BNP's own public commitments to

146. *Id.* at 81–82.

147. *Id.* at 82–83.

148. *Deforestation in the Amazon: Organisations Refuse the Mediation Proposal in the Legal Action Against Casino*, SHERPA (Dec. 1, 2022), <https://www.asso-sherpa.org/deforestation-in-the-amazon-organisations-refuse-the-mediation-proposal-in-the-legal-action-against-casino> [https://perma.cc/SS6A-9EJL].

149. *Casino Case: The Uru-Eu-Wau-Wau Indigenous Community Joins the Legal Action*, SHERPA (Jan. 12, 2023), <https://www.asso-sherpa.org/casino-case-uru-eu-wau-wau-join-legal-action> [https://perma.cc/WYD7-Y5X8].

150. Fábio Bispo, *Despite Lawsuit, Casino Group Still Sells Beef from Amazonian Indigenous Territory*, MONGABAY (July 13, 2023), <https://news.mongabay.com/2023/07/despite-lawsuit-casino-group-still-sells-beef-from-an-amazonian-indigenous-land> [https://perma.cc/5BCW-JGF6].

151. Assigment at 3, 7, *Comissão Pastoral da Terra v. BNP Paribas*, Paris Judicial Court (2023) (Fr.).

152. *Comissão Pastoral da Terra, Notre Affaire à Tous, & Rainforest Action Network, BNP Paribas Receives a Formal Notice for Financing Major Brazilian Beef Producer, Marfrig, Implicated in Illegal Deforestation, Indigenous Land Rights Violations, and Slave Labor*, BANKTRACK (Oct. 17, 2022), https://www.banktrack.org/article/bnp_paribas_receives_a_formal_notice_for

net-zero goals.¹⁵³ As the demand recounts, Marfrig is one of the world's top emitters of methane.¹⁵⁴ After this action was deemed inadmissible for lack of formal notice, another group of NGOs filed a new complaint with the French national prosecutor, seeking *criminal* enforcement against BNP and other French banks alleged to have financed illegal deforestation and thereby engaged in money laundering.¹⁵⁵

These efforts join challenges brought within Brazil seeking to address the deleterious impacts of cattle supply chains on forests and the climate. In December 2023, Brazil's Rondônia State brought suits against JBS, a group of cattle suppliers, and three slaughterhouses, seeking damages and fines for the alleged purchase of cattle linked to illegal deforestation.¹⁵⁶ These high-profile provincial cases follow several federally led climate-damage actions against ranchers implicated in similar activities. For example, in April 2021, Brazil's Ministério Público Federal (MPF) filed a public civil action against the de facto owner of an illicit cattle-ranching operation responsible for the deforestation of thousands of hectares of the Amazon.¹⁵⁷ The MPF, invoking Brazilian forest conservation laws, argued that the defendant should be held strictly liable,¹⁵⁸ not only for deforestation

[_financing_major_brazilian_beef_producer_marfrig_implicated_in_illegal_deforestation_indigenous_land_rights_violations_and_slave_labor](https://perma.cc/7HJE-L7RT) [https://perma.cc/7HJE-L7RT].

153. Maxwell Radwin, *Climate Change Lawsuits Take Aim at French Bank BNP Paribas*, MONGABAY (Mar. 3, 2022), <https://news.mongabay.com/2023/03/deforestation-lawsuits-take-aim-at-french-bank-bnp-paribas> [https://perma.cc/F56L-EXKQ].

154. Assignment at 19, *Comissão Pastoral da Terra v. BNP Paribas*, Paris Judicial Court (2023) (Fr.).

155. Dimitri Selibas, *French Banks Accused of Money Laundering Linked to Amazon Deforestation*, MONGABAY (Nov. 16, 2023), <https://news.mongabay.com/2023/11/french-banks-accused-of-money-laundering-linked-to-amazon-deforestation> [https://perma.cc/8LYF-VAJP]; see also Isabella Kaminski, *How Money Laundering Rules Could Be Used to Tackle Deforestation*, WAVE (Mar. 6, 2024), <https://www.the-wave.net/money-laundering-rules-tackle-deforestation> [https://perma.cc/WHT2-W8U5] (quoting advocate's view that the banks' conduct "was illegal because they did not implement due diligence processes that would have allowed them to be aware that the companies were actually laundering the proceeds of deforestation").

156. Manuela Andreoni, *Brazilian State Seeks Millions in Environmental Damages from Giant Meatpacker*, N.Y. TIMES (Dec. 20, 2023), <https://www.nytimes.com/2023/12/20/climate/amazon-deforestation-jbs.html> [on file with the Journal].

157. Petition at 3, TRF-1, Ação Civil Pública Cível No. 1005885-78.2021.4.01.3200, Relator: Ministério Público Federal, 07.04.2021 (Braz.) [hereinafter Brazil Petition].

158. Article 225 § 3 of Brazil's federal constitution, pertaining to civil liability for environmental degradation, enshrines the "polluter-pays" principle; per Law No. 6938/1981 (Brazil's National Environmental Policy). The liability is strict. CONSTITUIÇÃO FEDERAL [C.F.] [Constitution] art. 225 § 3 (Braz.); Brazil Petition, *supra* note 157, at 22–23.

but also for the nearly 1.5 million tons of CO₂ emissions released as a result.¹⁵⁹ Soon after the petition's filing, the federal court in Amazonas State granted a preliminary injunction ordering the removal of all cattle from the affected area and precluding issuance to the defendant of any new licenses for the movement of cattle onto other rural properties.¹⁶⁰ MPF celebrated the decision in a public statement that characterized the civil action as an "unprecedented" effort to ensure accountability for climate damage.¹⁶¹ The Brazilian federal environment agency has filed several similarly climate-focused public civil actions, including a September 2023 case against a rancher alleged to have caused climate damages by illegally degrading the Amazon.¹⁶²

D. Litigation Against Governments¹⁶³

Governments worldwide have faced litigation demanding climate action.¹⁶⁴ Outside of the United States, plaintiffs have linked animal agriculture to climate change in a variety of complaints against governments, typically in the context of broader challenges to insufficiently ambitious climate change policies. For example, when one French environmental NGO filed a *contribution extérieurement* (roughly analogous to an amicus brief) asking France's Constitutional Council to invalidate a 2019 energy and climate change statute, it cited as a key shortcoming the law's failure to extend its carbon neutrality goals to domains beyond energy, including the agro-industrial sec-

159. Brazil Petition, *supra* note 157, at 21. The prosecutor's emissions estimate does not appear to have included emissions released by the cattle-ranching operation itself. *See id.* at 20.

160. TRF-1, Ação Civil Pública Cível No. 1005885-78.2021.4.01.3200, Relator: Ministério Público Federal, 16.04.2021 (Braz.).

161. MPF (@mpf_oficial), INSTAGRAM (June 2, 2021), <https://www.instagram.com/p/CPnkqK1jOAK> [<https://perma.cc/SCF8-UZCQ>]. Final disposition of the case was still pending as of 2022. Antonio Augusto Reis et al., *Litigância Climática: Veja a Retrospectiva de 2021*, MATTOS FILHO (Jan. 12, 2022), <https://www.mattosfilho.com.br/unico/litigancia-climatica-retrospectiva-2021> [<https://perma.cc/EE2D-M4JC>].

162. TRF-1, Ação Civil Pública Cível No. 1037196-19.2023.4.01.3200, Relator: Procuradora Federal Junto ao IBAMA, 12.09.2023 (Braz.); MARIA ANTONIA TIGRE & MARGARET BARRY, SABIN CTR. FOR CLIMATE CHANGE L., CLIMATE CHANGE IN THE COURTS: A 2023 RETROSPECTIVE 10 (Dec. 2023), https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=1213&context=sabin_climate_change [on file with the Journal].

163. This Section focuses on litigation against governments outside of the United States, whereas Part IV, *infra*, describes relevant lawsuits involving U.S. government entities.

164. *See* BURGER ET AL., *supra* note 5, at 12–22.

tor, France's second-largest source of GHG emissions.¹⁶⁵ The Council upheld the challenged provisions of the law in November 2019.¹⁶⁶

In December 2022, the United Kingdom's Administrative Court denied a request¹⁶⁷ for judicial review of the latest National Food Strategy, which advocates argued had improperly failed to recommend reductions in meat and dairy consumption in light of "the contribution to greenhouse gas emissions made by the livestock and dairy sectors."¹⁶⁸ The plaintiff NGO Global Feedback had challenged the UK Department for Environment, Food and Rural Affairs' decision to ignore advice and recommendations from a government-commissioned independent review, including a finding that meat production contributed significantly to global GHG emissions.¹⁶⁹ Though the Court of Appeal granted permission for judicial review in June 2023, it later ruled that the Climate Change Act on which plaintiffs relied had not obligated the government to take such advice into account.¹⁷⁰ Meanwhile, Global Feedback brought a separate challenge to the government's inadequate consideration of emissions attributable to meat production in its environmental assessment of the UK Australia Free Trade Agreement, which the High Court has agreed to hear.¹⁷¹

165. Notre Affaire à Tous, Contribution extérieure dans le cadre du contrôle constitutionnel *a priori* du projet de loi relatif à l'énergie et au climat, Conseil constitutionnel [CC] [Constitutional Court] decision No. 2019-791DC (Fr.). at 13 (Oct. 15, 2019) ("L'absence de transversalité de l'objectif de neutralité carbone... semble contraire à l'obligation de vigilance.").

166. Decision, Loi relative à l'énergie et au climat, Conseil constitutionnel [CC] [Constitutional Court] decision No. 2019-791DC, Nov. 7, 2019 (Fr.).

167. See Damien Gayle, *Campaigners Take Legal Action over Failings of England's Food Strategy*, GUARDIAN (July 11, 2022), <https://www.theguardian.com/environment/2022/jul/11/campaigners-legal-action-government-food-strategy-england-judicial-review> [<https://perma.cc/W8BJ-YQKF>].

168. Global Feedback Ltd. v. Secretary of State [2022] EWHC (Admin) 3269 [4] (U.K.).

169. *Id.* The Irish High Court (the court of first instance) dismissed an analogous case concerning alleged climate-related deficiencies in Ireland's "Food Vision 2030" in October 2023. See Friends of the Irish Environment CLG v. Government of Ireland [2023] IEHC 562 (Ir.).

170. Global Feedback Ltd. v. Secretary of State [2023] EWCA Civ. 1549 [4]–[10] (U.K.).

171. See Christina O'Sullivan, *Application Filed for Judicial Review of the Australian Free Trade Agreement over Its Inadequate Environmental Impact Assessment*, FEEDBACK (Jul. 7, 2023), <https://feedbackglobal.org/campaign-group-feedback-file-an-application-for-judicial-review-of-the-implementing-legislation-of-the-australian-free-trade-agreement-over-its-inadequate-environmental-impact-assessment> [<https://perma.cc/3XQT-YHWJ>]; Maria Gonçalves, *Environmental Campaigners to Take Government to Court over Australia Trade Deal*, GROCER (Feb. 20, 2024), <https://www.thegrocer.co.uk/politics/environmental-campaigners-to-take-government-to-court-over-australia-trade-deal/688462.article> [<https://perma.cc/UP6T-YLLB>].

Plaintiffs made similar claims in an action brought against the European Parliament and the Council of the European Union seeking nullification of climate regulations which, according to the plaintiffs, set inadequate emissions reduction targets. The application included an attack on the regulations' "lack of ambition in the agricultural sector" and argued that, given the magnitude of the European Union's agriculture emissions (including "nitrous oxide emissions . . . from application and storage of manure, and methane emissions from enteric fermentation from cattle and sheep"), the regulations ought to have placed a higher priority on "reducing livestock and cropland" and facilitating a "change in consumption patterns."¹⁷² The Court of Justice of the European Union (CJEU) ultimately dismissed the case as inadmissible for lack of standing.¹⁷³ The European Court of Human Rights similarly declared "manifestly inadmissible" a case brought against the United Kingdom for alleged failures "to regulate and take all reasonable steps to safeguard against the risks of factory farming."¹⁷⁴ That too was a procedural decision; the Court did not reach the case's substantive merits.

In contrast to the just-mentioned cases that were stymied by procedural obstacles, the CJEU issued a decisive substantive judgment in response to a request for a preliminary ruling made by the Dutch Council of State, the highest administrative court in the Netherlands.¹⁷⁵ The case began when a Dutch NGO, Mobilisation for the Environment, sued the Dutch government for its failure to adequately address what the U.N. Economic Commission for Europe once called "a typically Dutch problem"¹⁷⁶: the densely urbanized country's massive amount of nitrogen waste, nearly half of which is attributable to concentrated animal agriculture operations.¹⁷⁷ The

172. Application ¶¶ 339–45, Case T-330/18, *Carvalho v. Parliament* (May 23, 2018).

173. Case C-565/19, *Carvalho v. Parliament*, ECLI:EU:C:2021:252, ¶ 106 (Mar. 25, 2021).

174. The inadmissibility decision in this "Stop Factory Farming" case, *Humane Being v. United Kingdom* (no. 36959/22), was rendered on the grounds that "the applicants were not sufficiently affected by the alleged breach." Press Unit, Eur. Ct. of Hum. Rts., Fact Sheet—Climate Change 4 (Jan. 2024), https://www.echr.coe.int/Documents/FS_Climate_change_ENG.pdf [<https://perma.cc/56L4-2ZTD>].

175. See generally Case C-293/17, *Coöperatie Mobilisation for the Environment UA v. College van Gedeputeerde Staten van Limburg*, ECLI:EU:C:2018:882 (Nov. 7, 2018).

176. Karl Mathiesen, *Protecting Nature, Destroying Lives: The Chemist vs. the Dutch Farmers*, POLITICO (Mar. 9, 2023), <https://www.politico.eu/article/johan-vollenbroek-netherlands-nitrogen-pollution-climate-change-farming> [<https://perma.cc/D32M-25X2>].

177. Erik Stokstad, *Nitrogen Crisis from Jam-Packed Livestock Operations Has 'Paralyzed' Dutch Economy*, SCIENCE (Dec. 4, 2019), <https://www.science.org/content/article/nitrogen>

CJEU judgment noted that the majority of Dutch natural protected areas “face a problem of excessive nitrogen deposition,” of which the agricultural sector is the principal source, and held that the EU Habitats Directive precluded the Netherlands from allowing “the application of fertilisers on the surface of land or below its surface and the grazing of cattle” without requiring permits issued pursuant to an “individualised appropriate assessment” of potential environmental consequences.¹⁷⁸

In May 2019, in accordance with the CJEU judgment, the Council of State ruled that the Dutch government’s strategy for mitigating nitrogen emissions violated EU law, including by improperly assuming that the animal agriculture sector, along with other sources, could adequately reduce nitrogen pollution without significant reductions in operational scale.¹⁷⁹ The decision “effectively put the granting of permits for . . . enlarging farms on hold.”¹⁸⁰ Although primarily aimed at local concerns associated with nitrogen deposition, such as habitat protection, the Dutch government’s responses to the judgment and to the larger problem of nitrogen pollution also explicitly seek to advance national “agriculture-related climate goals.”¹⁸¹ The majority of anthropogenic nitrous oxide emissions are produced when soil or aquatic microbes process excess nitrogen from livestock excreta and synthetic nitrogen fertilizer,¹⁸² so the same

crisis-jam-packed-livestock-operations-has-paralyzed-dutch-economy [on file with the Journal].

178. Case C-293/17, *Coöperatie Mobilisation for the Environment UA v. College van Gedeputeerde Staten van Limburg*, ECLI:EU:C:2018:882, ¶¶ 69, 120 (Nov. 7, 2018). The CJEU more recently issued a ruling condemning Ireland’s failure to adhere to the Habitats Directive, noting among other things the challenges of “overgrazing” and “agricultural activities causing nitrogen deposition.” Case C-444/21, *European Commission v. Ireland*, ECLI:EU:C:2023:524, ¶ 117 (June 29, 2023).

179. ABRvS 29 mei 2019, ECLI:NL:RVS:2019:1603 (*Stichting Werkgroep Behoud de Peel/College van Gedeputeerde Staten van Noord-Brabant*) (Neth.).

180. National Institute for Public Health and the Environment, *Nitrogen and PFAS Suddenly Big Societal Issues in the Netherlands*, RIVM INT’L NEWSL. (Jan. 16, 2020), <https://www.rivm.nl/en/newsletter/content/2020/issue1/nitrogen-pfas-in-NL> [<https://perma.cc/G2FP-9MKB>].

181. See Daan Boezeman et al., *Less Livestock in North-western Europe? Discourses and Drivers Behind Livestock Buyout Policies*, 22 *EUROCHOICES* 4, 6–7, 11 (2023); MARIT VAN DER HOEK & CHRISTOPHER RIKER, U.S. DEP’T OF AGRIC. FOREIGN AGRIC. SERV. & GLOBAL AGRIC. INFO. NETWORK, GOVERNMENT PRESENTS NATIONAL PROGRAM TO REDUCE NITROGEN GREENHOUSE GAS EMISSIONS IN RURAL AREAS (2022), <https://www.fas.usda.gov/data/netherlands-government-presents-national-program-reduce-nitrogen-greenhouse-gas-emissions> [on file with the Journal].

182. Klaus Butterbach-Bahl et al., *Nitrous Oxide Emissions from Soils: How Well Do We Understand the Processes and Their Controls?*, 368 *PHIL. TRANSACTIONS ROYAL SOC’Y LONDON, SERIES B, BIOLOGICAL SCI.* 1, 1 (2013) (explaining that dominant sources of both anthropogenic and

measures that reduce nitrogen pollution also reduce nitrous oxide emissions.

National regulations to cut the number of farmed animals in the country sparked heated protests by Dutch farmers; with a substantial minority of the Dutch public supporting their cause,¹⁸³ that mobilization led to significant electoral success.¹⁸⁴ The controversy, which has jeopardized the timely achievement of the Dutch government's nitrogen targets, typifies the political conflicts that climate-realist agricultural policies may provoke throughout Europe and beyond.¹⁸⁵

In Latin America, plaintiffs have invoked animal agriculture's contributions to climate change frequently in claims against governments for failure to prevent deforestation. One sweeping submission to the International Criminal Court seeking an investigation of crimes against humanity allegedly committed in the Brazilian Amazon by the Bolsonaro Administration called cattle ranching "the most important driver of Amazonian deforestation."¹⁸⁶ A report by climate experts appended to the submission discussed the "attribution of greenhouse gas emissions to the Bolsonaro administration" and argued that "the replacement of forest land with cattle ranch-

natural nitrous oxide are "closely related to microbial production processes in soils, sediments and water bodies"); Alfi Syakila & Carolien Kroeze, *The Global Nitrous Oxide Budget Revisited*, 1 GREENHOUSE GAS MEASUREMENT & MGMT. 17, 18–19 (2011) (quantifying global nitrous oxide sources).

183. ASHER VAN DER SCHELDE, I&O RSCH., LICHT DALENDE STEUN VOOR BOERENPROTESTEN 4 (2022), <https://065.wpcdnnode.com/ioresearch.nl/wp-content/uploads/2022/07/stikstof-nos-1.pdf> [<https://perma.cc/K6WF-M5WM>] (showing a decline in public support for farmer protests, from a known peak of 45% in June 2022 to 39% the following month).

184. Nicolas Camut, *Dutch Pro-Farmers Party Wins Big in Provincial Elections*, POLITICO (Mar. 16, 2023), <https://www.politico.eu/article/dutch-farmers-party-bbb-mark-ruttenetherlands-big-winner-in-provincial-elections> [<https://perma.cc/B8EV-87B6>].

185. Ben Coates, *Why Dutch Farmers Turned Their Flag Upside Down*, N.Y. TIMES (Apr. 3, 2023), <https://www.nytimes.com/2023/04/03/opinion/why-dutch-farmers-turned-their-flag-upside-down.html> [on file with the Journal]; Ashoka Mukpo, *In the Clash over Dutch Farming, Europe's Future Arrives*, MONGABAY (Sept. 8, 2023), <https://news.mongabay.com/2023/09/in-the-clash-over-dutch-farming-europes-future-arrives> [<https://perma.cc/C7R2-ZTXR>].

186. MAUD SARLIÈVE ET AL., LEGAL EXPERTS' REPORT TO THE OFFICE OF THE PROSECUTOR OF THE INTERNATIONAL CRIMINAL COURT, COMMUNICATION UNDER ARTICLE 15 OF THE ROME STATUTE REGARDING THE COMMISSION OF CRIMES AGAINST HUMANITY AGAINST ENVIRONMENTAL DEPENDENTS AND DEFENDERS IN THE BRAZILIAN LEGAL AMAZON FROM JANUARY 2019 TO PRESENT, ¶ 84 (Oct. 2021), https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2021/20211012_14633_na.pdf [<https://perma.cc/D9BS-6GKH>].

es . . . contributes substantially to global carbon dioxide and methane emissions.”¹⁸⁷

A lawsuit filed by Peruvian youth, arguing that Peru’s insufficient climate action violated the government’s regulatory, constitutional, and international obligations, cited land use change and agriculture as two of the country’s three largest sources of emissions. The lawsuit emphasized the significance of emissions from agriculture-driven deforestation and enteric fermentation.¹⁸⁸ No judgment has been issued in that lawsuit,¹⁸⁹ but a 2016 decision by Colombia’s Constitutional Court ruled favorably on similar claims against the Colombian government’s National Development Plans, provisions of which the Court invalidated as insufficiently protective of páramos—high-altitude ecosystems noted for their significant capacity for CO₂ sequestration—threatened by livestock operations, among other industrial activities.¹⁹⁰

As a final example, in the Yucatán, Mayan youth have invoked rights to a healthy environment and Indigenous autonomy in a constitutional challenge to the issuance of a permit to a massive industrial pig farm, which the Supreme Court of Justice of Mexico ordered closed in May 2021 pending final resolution of the case.¹⁹¹ In an amicus brief filed in the Second District Court in the State of Yucatán in February 2022, a coalition of environmental and public-health NGOs emphasized the causal connection between pig farming’s significant methane and nitrous oxide emissions and the public health and environmental damage inflicted by climate change.¹⁹² In Febru-

187. RUPERT F. STUART-SMITH ET AL., CLIMATOLOGICAL EXPERTS’ REPORT TO THE OFFICE OF THE PROSECUTOR OF THE INTERNATIONAL CRIMINAL COURT, GLOBAL CLIMATE CHANGE IMPACTS ATTRIBUTABLE TO DEFORESTATION, DRIVEN BY THE BOLSONARO ADMINISTRATION 12 (Aug. 2021), http://climatecasechart.com/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2021/20211012_14633_na.pdf [<https://perma.cc/C9RM-X4YM>].

188. Constitutional Complaint, Corte Superior de Justicia de Lima, *Álvarez v. Peru*, Dec. 16, 2019, at 11.

189. See Vilchez & Savaresi, *supra* note 85, at 18.

190. Corte Constitucional [C.C.] [Constitutional Court], Febrero 8, 2016, Sentencia C-035/16 (Colom.); cf. S.T.F., *Arguição de Descuprimto de Preceito Fundamental 934 No. 0112562-91.2022.1.00.0000*, Relator: Min. Nunes Marques, 08.01.2022 (Braz.) (alleging constitutional violations by the Brazilian federal government in failing to fund sufficient monitoring of livestock-linked deforestation in the Cerrado).

191. Nydia Gutiérrez, *Mexican Supreme Court Ruled in Favor of Mayan Community, Suspends 49,000 Hog Farm*, EARTHJUSTICE (May 20, 2021), <https://earthjustice.org/news/press/2021/mexican-supreme-court-ruled-in-favor-of-mayan-community-suspends-49-000-hog-farm> [<https://perma.cc/FZN3-LMB4>].

192. Ref. Presentación de Amicus Curiae en relación con el Juicio de Amparo Caso Homún, Juzgado Segundo de Distrito en el Estado de Yucatán, Número de Expediente 1757/2019, at 16

ary 2024, the Second District Court revoked the permit based on irregularities in the environmental impact assessment process and on the evidence presented about the environmental risks the farm poses, including deforestation, the pollution of a culturally and ecologically significant ring of subterranean pools (the *Anillo de Cenotes*¹⁹³), and other air and water pollution from manure.¹⁹⁴

E. Non-Judicial Challenges

Although lawyers generally view litigation as the quintessential lever of accountability, non-judicial grievance mechanisms may also provide viable pathways to change, including at the international level.¹⁹⁵ The Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises offer one such avenue.¹⁹⁶ Any interested party may submit a “specific instance of alleged misconduct” in violation of the Guidelines to the OECD National Contact Point (NCP), which is empowered to conduct preliminary investigations, facilitate dialogue, and make recommendations. Participation in the process is voluntary, and the NCP lacks authority to order or enforce any remedies.¹⁹⁷

In late 2021, the Italian Rete Legalità per il Clima (Climate Legality Network) submitted a case detailing alleged misconduct by “multinational companies that manage intensive livestock farms in Italy” in a manner that is incompatible with national and European public policies aimed at addressing climate change.¹⁹⁸ The network’s filing cit-

(Feb. 25, 2022) (“Entre muchos otros daños, el cambio climático exacerbará el daño que las mega granjas infligen a la salud humana y al medio ambiente.”).

193. *Ring of Cenotes of Chicxulub Crater, Yucatan*, UNESCO WORLD HERITAGE FOUND., <https://whc.unesco.org/en/tentativelists/5784> [<https://perma.cc/78F6-SG5V>] (last visited Mar. 13, 2024).

194. Patricio Eleisegui, *¡Adiós a la megagránja de cerdos de Homún! Sentencia histórica revoca permisos ambientales a la porcícola*, PIE DE PÁGINA (Feb. 15, 2024), <https://piedepagina.mx/adios-a-la-megragranja-de-cerdos-en-homun-sentencia-revoca-permisos-ambientales-a-la-porcicola> [<https://perma.cc/SJE3-W5MY>].

195. See, e.g., Christopher Ewell, Oona A. Hathaway, & Ellen Nohle, *Has the Alien Tort Statute Made a Difference?: A Historical, Empirical, and Normative Assessment*, 107 CORNELL L. REV. 1205, 1287–1294 (2022) (discussing alternative dispute resolution in the context of international human rights abuses, including those committed by corporate actors).

196. See *How Do NCPs Handle Cases?*, OECD, <http://mneguidelines.oecd.org/ncps/how-do-ncps-handle-cases.htm> [<https://perma.cc/H4GW-P9EZ>].

197. *Id.* The OECD commonly refers to these “specific instances” as “cases.” See *id.*

198. Summary of the Instance by the Applicants, Automatic English Translation at 1, Rete Legalità per il Clima v. Intensive Livestock Farming Multinational Companies Operating in Italy

ed “systemic violations” of OECD guidelines, including insufficient transparency of information and failure to identify and manage risks associated with the release of methane and other GHGs “in the midst of a climate emergency.”¹⁹⁹ According to the filing, the Network hoped the NCP process would result in the release of information about the companies’ emissions and any policies or practices adopted to mitigate them—a degree of transparency that might ultimately lead to significant emissions reductions.²⁰⁰ However, the NCP appears not to have accepted the case, in which participation by the targeted multinationals (which declined to respond to the Network’s direct request for information, sent prior to the filing of the case) would in any case be at their discretion.²⁰¹

Meanwhile, environmental NGOs have submitted repeated requests to the Inter-American Commission on Human Rights (IACHR), a consultative organ of the intergovernmental Organization of American States, for a thematic hearing focused on human rights violations associated with concentrated animal feeding operations (CAFOs) in the Americas.²⁰² The requests have explicitly argued that

(Dec. 6, 2021), https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2021/20211206_15717_points-of-claim-1.pdf [<https://perma.cc/H2UW-5PND>].

199. *Id.* at 3.

200. *Id.* at 4.

201. National Contact Points (NCPs) have discretion to determine whether cases merit further examination. *See, e.g., BP and Client Earth*, OECD, <http://mneguidelines.oecd.org/database/instances/uk0054.htm> [<https://perma.cc/CF6X-YZ5V>] (noting the UK NCP’s refusal, following a six-month initial assessment, to proceed with a climate-related claim filed by ClientEarth against BP). A Climate Legality Network lawyer stated that the Network is prepared to proceed to court if its effort at NCP “dialogue” ultimately fails. Marta Facchini, *L’azione della “Rete legalità per il clima” contro gli allevamenti intensivi in Italia*, ALTRECONOMIA (Dec. 15, 2021), <https://altreconomia.it/lazione-della-rete-legalita-per-il-clima-contro-gli-allevamenti-intensivi-in-italia> [<https://perma.cc/C5M8-JDPA>]. In another OECD complaint, the NGO Survival International alleges an Italian leather supplier’s complicity in illegal deforestation in Paraguay. Though the complaint focuses on human rights violations against Indigenous people, it also notes deforestation’s role in the “emergenza climatica.” Complaint at 49, *Survival International Italia ETS v. Pasubio* (Dec. 13, 2022) (OECD), https://assets.survivalinternational.org/documents/2418/Istanza_PCN_-_Survival_International_Italia_ETS_131222.pdf [<https://perma.cc/TXT4-LV5C>].

202. *See, e.g.,* Request to the Inter-Am. Comm’n H.R. for a Thematic Hearing on the Human Rights Situation of Individuals and Communities Affected by Concentrated Animal Feeding Operations in the Hemisphere (Oct. 11, 2021), https://www.biologicaldiversity.org/campaigns/industrial_animal_agriculture/pdfs/ENGRegionalCAFOandHR.pdf [<https://perma.cc/8YTQ-89LY>] [hereinafter Request to the IACHR] (focusing on Argentina, Chile, Ecuador, Mexico, and the United States). The IACHR is a quasi-judicial body with discretion to accept or reject requests for “thematic” hearings, which can serve to increase understanding and public awareness of particular human rights abuses in the region. *See International Coalition Petitions Inter-American Commission on Human Rights to Investigate Factory-Farm Abuses*, EARTHJUSTICE (Oct.

CAFOs contribute to climate change through high methane and nitrous oxide emissions²⁰³ and contended that storms exacerbated by climate change increase the likelihood of CAFO waste pit overflows and breaches, which contaminate surface and groundwater.²⁰⁴ In March 2023, at an informal hearing before the IACHR, advocates testified to “the massive harms that CAFOs in the United States cause.”²⁰⁵

IV. EMERGENT CLIMATE CHALLENGES TO ANIMAL AGRICULTURE IN U.S. COURTS

The United States is conspicuously absent from the set of standard-bearing cases discussed in the preceding Part. Yet, even in the United States, climate litigants have begun to raise animal agriculture’s climate harms, most frequently—but not exclusively²⁰⁶—in litigation against government actors. Some U.S. courts have in turn proved receptive to recognizing the link between animal agriculture and climate change.

A. Federal Agencies

The largest group of relevant U.S. lawsuits includes suits alleging government support for, or regulatory acquiescence to, animal agriculture. This is unsurprising in the United States, where an array of statutory protections exempting animal agriculture firms from direct liability for environmental harm—including so-called “right to farm” laws²⁰⁷—may lead litigants instead to challenge agencies’ permitting decisions or rulemakings in an effort to compel affirmative regulatory action. Given their broad rulemaking and adjudicatory enforce-

11, 2021), <https://earthjustice.org/news/press/2021/international-coalition-petitions-inter-american-commission-on-human-rights-to-investigate-factory-farm-abuses> [<https://perma.cc/5G8Y-M6JH>].

203. Request to the IACHR, *supra* note 202, at 5–6.

204. *Id.* at 6.

205. Press Release, Ctr. for Biological Diversity, Inter-American Commission on Human Rights to Hear Testimony Friday on Abuses at U.S. Factory Farms (Mar. 9, 2023), <https://biologicaldiversity.org/w/news/press-releases/inter-american-commission-on-human-rights-to-hear-testimony-friday-on-abuses-at-us-factory-farms-2023-03-09> [<https://perma.cc/P9PU-T2S2>].

206. *See infra* Section IV(C).

207. Tiffany Dowell, *Understanding and Interpreting Right to Farm Laws*, 26 NAT. RES. & ENV’T 39, 40 (2011) (discussing laws, adopted in all fifty U.S. states, that shield agricultural operations from some tort liability); *see also* discussion *infra* Section V(B)(2).

ment authority, U.S. federal government agencies are perennial targets of litigation efforts mounted by animal welfare, environmental, and other NGOs seeking regulation of industrial animal agriculture under statutes including the National Environmental Policy Act (NEPA) and the Administrative Procedure Act (APA), among others.²⁰⁸ Historically, the threat of climate change has played only a limited role compared to more direct and immediate forms of environmental damage from industrial animal agriculture. However, as the following cases show, a growing number of plaintiffs have cited GHG emissions as an important component of animal agriculture's overall environmental impact.

One early and prominent example began with a petition for rule-making filed in 2009 by several NGOs, including the Humane Society of the United States, requesting that EPA regulate CAFOs as a category of emissions sources under the CAA.²⁰⁹ After more than five years without agency acknowledgement, the petitioners sued EPA in an effort to compel a response, alleging a violation of the APA's "unreasonable delay" provision.²¹⁰ The district court, applying the relatively stringent notice requirements of the CAA instead of those applicable to actions arising under the APA, granted EPA's motion to dismiss without any comment on the petition's merits.²¹¹ In 2017, EPA finally responded with a letter denying the petition, ostensibly because the agency lacked the "accurate methodologies for estimating [CAFO] emissions" that would be required to effectively regulate

208. Though the specifics of each statutory scheme vary, NGOs are often able to file "petitions for review' . . . against agencies for noncompliance with statutory mandates," i.e., "challenges to substantively or procedurally deficient agency actions . . . brought under the judicial review provisions of environmental statutes" or the Administrative Procedure Act. David E. Adelman & Robert L. Glicksman, *The Limits of Citizen Environmental Litigation*, 33 NAT. RES. & ENV'T 17, 17 (2019).

209. Humane Soc'y of the United States et al., Petition to List Concentrated Animal Feeding Operations Under Clean Air Act Section 111(b)(1)(a), at 3 (EPA Sept. 21, 2009), <https://www.regulations.gov/document/EPA-HQ-OAR-2017-0638-0002> [<https://perma.cc/V95G-Y754>]. The petition was filed after the Supreme Court confirmed EPA's authority to regulate GHGs under the CAA in *Massachusetts v. EPA*, 549 U.S. 497 (2007).

210. Complaint For Declaratory and Injunctive Relief at 3, *Humane Soc'y of the United States v. McCarthy*, 209 F. Supp. 3d 280 (D.D.C. 2016) (No. 15-cv-0141).

211. *Humane Soc'y of the U.S. v. McCarthy*, 209 F. Supp. 3d 280 (D.D.C. 2016). The petitioners next attempted to litigate the matter in accordance with the CAA. See Complaint for Declaratory and Injunctive Relief, *Humane Soc'y of the U.S. v. Pruitt*, No. 17-1719 (D.D.C. Aug. 23, 2017). The suit was ultimately rendered moot by EPA's long-delayed rejection of the petition (discussed below).

the industry.²¹² EPA's letter left open the possibility that "EPA may initiate a process to determine whether to list CAFOs under CAA section 111(b)(1)(A)" in the future.²¹³

Climate change also played a key role in an action brought in 2020 by a coalition of rural, environmental, and animal advocacy organizations against the Council of Environmental Quality (CEQ)²¹⁴ aiming to enjoin a rule change that had exempted federal financial assistance to CAFOs from NEPA analysis and review.²¹⁵ Along with allegations of other environmental harms, the complaint argued that CAFOs "cause and exacerbate climate change" and pointed to previously submitted public comments that "detailed how the CAFO industry . . . spur[s] climate change."²¹⁶ The plaintiffs redoubled their climate change claims in opposition to the defendants' motion to dismiss,²¹⁷ but ultimately consented to stay the case after an executive order issued by the newly inaugurated Biden Administration prompted CEQ to initiate its own review of the challenged rule.²¹⁸

The use of federal public lands to subsidize animal agriculture has also attracted climate litigants' attention. In 2018, for example, plaintiffs sought a "phase out" of "fossil fuel extraction, animal agriculture, and commercial logging of old-growth forests on federal

212. E. Scott Pruitt, Adm'r, EPA, Letter to Jonathan Lovvorn & Daniel Lutz, Humane Soc'y of the United States at 4 (Dec. 15, 2017), <https://www.regulations.gov/document?D=EPA-HQ-OAR-2017-0638-0003> [<https://perma.cc/8T5E-8K8Y>].

213. *Id.* at 2. For further analysis see Katrina Tomas, *Manure Management for Climate Change Mitigation: Regulating CAFO Greenhouse Gas Emissions Under the Clean Air Act*, 73 U. MIAMI L. REV. 531 (2019).

214. The Council on Environmental Quality, part of the Executive Office of the U.S. President, coordinates federal environmental policy. WHITE HOUSE: COUNCIL ON ENV'T QUALITY, <https://www.whitehouse.gov/ceq> [<https://perma.cc/5M6R-HU6N>] (last visited Dec. 5, 2023).

215. Complaint, *Iowa Citizens for Cmty. Improvement v. Council on Env't Quality*, No. 20-cv-2715 (D. D.C. Sept. 23, 2020).

216. *Id.* at 2, 18; *see also* Press Release, Animal Legal Defense Fund, *Lawsuit Challenges New NEPA Regulations that Shield CAFOs from Environmental Review*, (Sept. 23, 2020) <https://aldf.org/article/lawsuit-challenges-new-nepa-regulations-that-shield-cafos-from-environmental-review> [<https://perma.cc/7URQ-W3JD>].

217. Plaintiffs' Opposition to Defendants' Motion to Dismiss at 24 n.15, *Iowa Citizens for Cmty. Improvement v. Council on Env't Quality*, No. 20-CV-2715-TJK (D.D.C. Nov. 12, 2020) ("Indeed, the far-reaching and cumulative effects of any new or expanding CAFO—including its contribution to climate change—demonstrates that . . . it is guaranteed to affect Plaintiffs' members[.]").

218. *See* Exec. Order No. 13,990, 86 Fed. Reg. 7,037 (Jan. 25, 2021) (directing federal agencies to review Trump-era regulations to ensure they promote objectives like public health, emissions reductions, and environmental justice); Minute Order, *Iowa Citizens for Cmty. Improvement v. Council on Env't Quality*, No. 20-CV-2715 (D.D.C. Feb. 28, 2023) (extending the original February 2021 stay).

lands,” claiming these activities cumulatively threatened an expansive constitutional “right to wilderness.”²¹⁹ While “acknowledg[ing] the ‘serious’ and ‘well recognized’ harms associated with climate change,” the district court granted the federal defendants’ motion to dismiss based on plaintiffs’ lack of “particularized” injury pursuant to Article III standing, invoking as well the political question doctrine.²²⁰ However, in concluding that the claimed right to wilderness was not “clearly established,” the court stopped short of rejecting a “narrower” “right to a ‘stable climate system.’”²²¹

Similar but less sweeping challenges premised on statutory rather than constitutional violations have continued under the Biden Administration. In January 2022, a trio of environmental NGOs filed one such lawsuit objecting to the National Park Service’s (NPS) 2021 decision to extend and expand ranching in Point Reyes National Seashore and Golden Gate National Recreation Area.²²² The dispute began in 2016, when the same plaintiffs sued to force NPS to update its management plans, citing “newer science and data [that] identified methane emissions from dairy wastes (or manure) as the overwhelming source of greenhouse gas emissions at the National Seashore.”²²³ The parties settled in 2017, with the plaintiffs acquiescing to interim extensions of existing leases in exchange for NPS updating the applicable management plan and environmental impact statement within four years.²²⁴

In the renewed suit, in addition to contending that NPS “ignored how ranching will exacerbate” the local consequences of climate change, including “water quality and quantity problems,” the complaint noted that NPS had failed to adopt a “climate action plan that addresses [GHG] emissions from ranching” prior to issuing its decision.²²⁵ To remedy these alleged violations of the APA and various

219. *Animal Legal Def. Fund v. United States*, 404 F. Supp. 3d 1294, 1298 (D. Or. 2019).

220. *Id.* at 1300.

221. *Id.* at 1302. The prospect of such a right had previously been raised in the *Juliana* youth climate litigation. *See infra* notes 478–481 and accompanying text.

222. Complaint (Administrative Procedure Act Case), *Res. Renewal Inst. v. Nat’l Park Serv.*, No. 22-cv-145 (N.D. Cal. Jan. 10, 2022). Individual ranchers and the Point Reyes Seashore Ranchers Association have since moved to join as intervenor-defendants. *Id.*

223. First Amended Complaint at 21, *Res. Renewal Institute v. Nat’l Park Serv.*, No. 16-CV-0688 (N.D. Cal. Aug. 5, 2016).

224. Stipulated Settlement Agreement and Order at 5–6, *Res. Renewal Institute v. Nat’l Park Serv.*, No. 16-CV-0688 (N.D. Cal. July 14, 2017).

225. Complaint (Administrative Procedure Act Case) at 21, 24, *Res. Renewal Institute v. Nat’l Park Serv.*, No. 22-cv-145 (N.D. Cal. Jan. 10, 2022).

substantive statutes, the plaintiffs seek vacatur and remand of the decision and an injunction precluding expansion of ranching and other commercial operations within the public lands in question.²²⁶

While that litigation remains pending, an early victory for ranching interests in another suit involving the park's Tule elk herd²²⁷ was effectively undone in June 2023, when NPS officials announced plans to expand the area of the park open to the elk regardless of the outcome of the litigation, "cit[ing] climate change as a primary driver" of the decision to allow the elk access to water.²²⁸ The next month, a new lawsuit filed in Arizona challenged federal agencies' authorization of livestock grazing in the Coronado National Forest, which the plaintiffs alleged "exacerbate[s]" the "significant threat that climate change poses" to critical habitats in violation of the Endangered Species Act (ESA).²²⁹

A variety of suits implicate other forms of federal support for animal agriculture or challenge federal agencies' relatively permissive regulation thereof. In 2019, a group of animal welfare and environmental NGOs sought judicial review and vacatur of a "modernized" *Slaughter Rule*, newly promulgated by the U.S. Department of Agriculture's (USDA's) Food Safety and Inspection Service, which revoked the maximum line speed limits that had previously applied to pig slaughter.²³⁰ Alleging violations of the APA, the Humane Methods of Slaughter Act, and the Federal Meat Inspection Act, plaintiffs argued that the "increase in pig demand and slaughter numbers" facilitated by the rule would "likely cause significant adverse environmental effects," including increased "risks of climate change, largely as a result of the industry's significant production of methane and

226. *Id.* at 39.

227. In the suit, brought by animal advocates to remedy the plight of Tule elk living at the National Seashore who had been blocked by cattle fencing from reaching water and were dying in large numbers, the court granted the government defendants' motion for summary judgment, interpreting the statute not to have imposed a nondiscretionary duty and concluding that the court could not compel the agency to revise its management plans. *Gescheidt v. Haaland*, 2023 WL 2250268 (N.D. Cal. Feb. 27, 2023).

228. Kurtis Alexander, *Protesters Hate the Elk Fence at This Bay Area National Park. Now It Might Come Down*, S.F. CHRONICLE (June 15, 2023), <https://www.sfchronicle.com/climate/article/bay-area-national-park-remove-controversial-elk-18152240.php> [on file with the Journal].

229. Complaint for Declaratory and Injunctive Relief at 23, *Center for Biological Diversity v. Moore*, No. 4:23CV00354 (D. Ariz. July 28, 2023); see also *infra* notes 500–506 and accompanying text (discussing climate change and the Endangered Species Act).

230. Complaint for Vacatur, Declaratory, and Injunctive Relief, *Farm Sanctuary v. U.S. Dep't of Agric.*, 545 F.Supp.3d 50 (W.D.N.Y. 2019) (6:19-CV-06910).

nitrous oxide,” which USDA had failed to appropriately analyze as required by NEPA.²³¹ While the federal district court initially denied the USDA’s motion to dismiss and affirmed the plaintiffs’ standing,²³² the court later granted the government’s motion for summary judgment and dismissed the case on grounds unrelated to climate.²³³

An incidental climate allegation also featured in a 2020 suit challenging the FDA’s approval of a drug purported to reduce the amount of ammonia gas released from cattle waste.²³⁴ The plaintiffs—a trio of animal and food-safety advocacy organizations—argued (among other claims for relief) that the FDA had violated NEPA and the APA by failing to consider the potential environmental impacts of its decision, including the exacerbation of GHG emissions likely to result from the drug “enabl[ing] CAFO operators to confine more cows per feedlot concentration.”²³⁵ The case remains pending after the district court denied the FDA’s motion to dismiss for plaintiffs’ lack of standing.²³⁶

More recently, in a 2022 APA challenge subsequently dismissed for lack of standing, a predominantly Black community of farmers²³⁷ objected to “the federal government’s illegal practice of subsidizing industrial chicken operations through a federal lending program expressly reserved for ‘family farms’ . . . without thoroughly analyzing their environmental impacts,” including “climate impacts from greenhouse gas emissions.”²³⁸

231. *Id.* at 38, 46.

232. The court’s holding on standing was based primarily on the organizations’ “‘core’ animal protection and rescue work” and made no mention of their climate-related claim. *Farm Sanctuary v. U.S. Dep’t of Agric.*, 545 F.Supp.3d 50, 66 (W.D.N.Y. 2021).

233. *Farm Sanctuary v. U.S. Dep’t of Agric.*, No. 6:19-cv-06910, 2023 WL 8602134 (W.D.N.Y. Dec. 12, 2023), *appeal docketed*, No. 6:19-CV-06910 (W.D.N.Y. Feb. 12, 2024).

234. *Animal Legal Def. Fund v. Azar*, No. 20-CV-03703, 2021 WL 4477901 (N.D. Cal. Feb. 23, 2021).

235. First Amended Complaint for Declaratory and Injunctive Relief at 27, *Animal Legal Def. Fund v. Azar*, No. 3:20-cv-03703-RS (N.D. Cal. Sept. 29, 2020).

236. *Animal Legal Def. Fund*, 2021 WL 4477901, at *4.

237. *Concerned Citizens of West Tenn. v. U.S. Dep’t of Agric.*, No. 1:22-CV-01274, 2024 WL 313647, at *12–13 (W.D. Tenn. Jan. 26, 2024); Anita Wadhvani, *In West Tennessee, a Group of Black Farmers Take on Tyson Foods*, TENN. LOOKOUT (Dec. 19, 2022), <https://tennesseelookout.com/2022/12/19/in-west-tennessee-a-group-of-black-farmers-take-on-tyson-foods> [<https://perma.cc/Q4TF-HU69>].

238. Complaint for Declaratory and Injunctive Relief at 1, 47, *Concerned Citizens of West Tenn. v. U.S. Dep’t of Agric.*, 2024 WL 313647 (W.D. Tenn. Jan. 26, 2024) (No. 1:22-CV-01274). Plaintiffs had alleged that, although the lending program is “intended to help ‘family farms,’” it is giving “seven figure loans” to “construct large industrial chicken operations affiliated with Tyson, [a] multi-billion-dollar, international conglomerate[.]” *Id.* at 3.

Advocates have also sought to influence federal agencies using non-judicial requests for regulatory enforcement or dispute resolution, which can function as precursors or alternatives to litigation.²³⁹ These cases often take aim at private firms indirectly, by urging agency action against them. For example, in 2021, Food & Water Watch and other NGOs filed a letter with the Federal Trade Commission (FTC) alleging violations of the FTC Act and seeking an injunction to prevent pork producer Smithfield Foods from “deceiving consumers with false claims of environmentally sustainable production practices.”²⁴⁰

Although the FTC appears not to have responded yet, pressure on the FTC and other agencies to act may increase if “similar claims against meat processors . . . continue to be filed.”²⁴¹ Indeed, soon after Food & Water Watch’s Complaint, another NGO petitioned the FTC “to stop the National Cattlemen’s Beef Association from . . . downplay[ing] the beef industry’s impact on the climate crisis.”²⁴² And in 2023, the Environmental Working Group (EWG) petitioned USDA’s Food Safety and Inspection Service to regulate “climate-friendly” claims and prohibit such claims outright for beef products.²⁴³ EWG later filed a Freedom of Information Act (FOIA) lawsuit against the agency, seeking unredacted records related to its

239. See *Allen v. Grand Cent. Aircraft Co.*, 347 U.S. 535, 553 (1954); see also Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950, 997 (1979) (discussing various types of administrative proceedings and noting that many result in consensual settlement in lieu of a judicial trial).

240. Complaint for Action to Stop False or Deceptive Advertising Submitted by Food & Water Watch to the FTC Against Smithfield Foods, Inc., (Feb. 4, 2021), <https://www.foodandwaterwatch.org/wp-content/uploads/2021/08/2021.02.03.Smithfield-FTC-complaint-filed.pdf> [<https://perma.cc/8A78-WWMA>] [hereinafter Food & Water Watch Complaint]; see also *id.* at 2 (“Smithfield’s particularly egregious environmental record and adoption of anaerobic manure digesters to produce and sell dirty, polluting biogas is inconsistent with how reasonable consumers understand the company’s [environmental and sustainability] claims.”).

241. Pooja S. Nair & Cate Veeneman, *False Advertising Lawsuits Are Ramping Up in Food and Beverage*, FOOD DIVE (Aug. 23, 2021), <https://www.fooddive.com/news/false-advertising-lawsuits-are-ramping-up-in-food-and-beverage/604615> [<https://perma.cc/JZ5Z-43CG>].

242. *Doctors Group Petitions FTC to Stop National Cattlemen’s Beef Association from Placing Ads that Downplay Beef’s Impact on Climate Crisis*, PHYSICIANS COMM. FOR RESPONSIBLE MED. (Aug. 31, 2021), <https://www.pcrm.org/news/news-releases/doctors-group-petitions-ftc-stop-national-cattlemens-beef-association-placing> [<https://perma.cc/5RJM-BKFT>].

243. See Petition from Env’t Working Grp. to U.S. Dep’t of Agric. to Prohibit “Climate-Friendly” Claims on Beef Products (July 11, 2023), https://static.ewg.org/upload/pdf/EWG_FSYS_Petition_on_Tyson_Climate-Friendly_Beef_Claims.pdf [<https://perma.cc/9X8F-GTVT>] [hereinafter EWG Petition].

“decision to allow Tyson Foods,” a major beef producer, “to market industrially produced beef as ‘climate friendly.’”²⁴⁴

Investors, like consumers, can also be misled by environmental misrepresentations; in recent years, the Securities & Exchange Commission (SEC) has shown an increased interest in combating misleading ESG claims, as well as a deeper commitment to its whistleblower award program as an enforcement tool.²⁴⁵ As discussed below, some advocates have already sought to leverage this tool against SEC-regulated animal agriculture firms.²⁴⁶

B. State and Local Government

State agency actions have also been subject to challenge. In North Carolina, for example, a coalition of environmental justice advocates is seeking state administrative review of a recently finalized Department of Environmental Quality (NCDEQ) general permit allowing pig CAFOs to develop biogas projects while continuing to use waste lagoon and sprayfield systems.²⁴⁷ In an earlier complaint, the coalition had contended that anaerobic digesters—designed to capture methane emissions and convert them into biogas as a purported climate mitigation measure—entrench rather than resolve CAFOs’ harmful effects on the environment and neighboring communities, especially communities of color.²⁴⁸

244. Complaint for Injunctive Relief at 1, *Env’t Working Grp. v. Food Safety & Inspection Serv.*, No. 1:23-cv-03806 (D.D.C. Dec. 22, 2023).

245. See Matthew C. Solomon et al., *US SEC Enforcement 2022 Year in Review*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Dec. 27, 2022), <https://corpgov.law.harvard.edu/2022/12/27/us-sec-enforcement-2022-year-in-review> [<https://perma.cc/X4LV-388L>].

246. See *infra* note 264 and accompanying text.

247. See Press Release, Southern Env’t L. Center, *We’re Challenging the NC Permit for Hog Waste Operations Causing Pollution and Harm to Communities* (Aug. 4, 2022), <https://www.southernenvironment.org/news/were-challenging-the-n-c-permit-for-hog-waste-operations-causing-pollution-and-harm-to-communities> [<https://perma.cc/S5R2-UACJ>].

248. Complaint submitted by Southern Env’t Law Center to EPA against N.C. Dep’t Env’t Quality’s Issuance of Permits, at 2 (Sept. 27, 2021), <https://www.southernenvironment.org/wp-content/uploads/2021/09/2021-09-27-Title-VI-Complaint-Index-DEQ-Biogas-Permits.pdf> [<https://perma.cc/V25Z-4M8S>]. Anaerobic digesters have been widely criticized for “increas[ing] CAFOs’ social license to operate [and] divert[ing] resources from more sustainable methods of emissions reduction.” Ruthie Lazenby, *Rethinking Manure Biogas: Policy Considerations to Promote Equity & Protect the Climate & Environment*, VT. L. & GRAD. SCH. CTR. FOR AGRIC. & FOOD SYS. 24–25 (Aug. 2022), https://www.vermontlaw.edu/sites/default/files/2022-08/Rethinking_Manure_Biogas.pdf [<https://perma.cc/B6CF-TUVF>]; Alexander Weiss et al., *Let’s Talk About Biogas . . . Even If We Think It Stinks*, YALE CLIMATE, ANIMAL, FOOD & ENV’T L. &

State and local agencies may be called to defend their decisions in litigation based on procedural claims analogous to those made under the APA, NEPA, and other federal statutes. In one example, the Washington State Court of Appeals reviewed the state Department of Ecology's issuance of dairy-industry CAFO waste discharge permits under the Water Pollution Control Act, Washington's counterpart to the federal Clean Water Act (CWA).²⁴⁹ Concluding that the agency had failed "to consider the effects of climate change," the court ordered the permits to be rewritten in light of those impacts.²⁵⁰ This decision was made possible by the court's relatively expansive interpretation of the State Environmental Policy Act as imposing on the Department of Ecology a "responsibility to consider the impacts of climate change" in issuing waste discharge permits to animal agriculture operations.²⁵¹

In another example, in 2018 the Minnesota Center for Environmental Advocacy sued the Minnesota Pollution Control Agency (MPCA) for deciding to permit a major expansion of Daley Farms, a large dairy CAFO, without first requiring an environmental impact statement (EIS).²⁵² The Minnesota Court of Appeals reversed the agency's approval of the permit. After evaluating the approval under Minnesota's administrative review and environmental review statutes, the court found that MPCA had failed to consider adequately the project's GHG emissions and ordered MPCA to do so.²⁵³

Following a supplemental inquiry that incorporated, as ordered, an assessment of the dairy farm's climate impacts, the MPCA again decided that the proposed expansion did not require an EIS.²⁵⁴ Even

POL'Y LAB 3 (2020), https://law.yale.edu/sites/default/files/area/center/leap/document/lets_talk_about_biogas_-_cafe_lab_-_spring_2020.pdf [<https://perma.cc/H9E2-VT3M>].

249. Washington State Dairy Federation v. State, 18 Wash. App. 2d 259, 269–70 (2021).

250. *Id.* at 265.

251. *Id.* at 316. The court did not make clear, however, whether the Department was obliged to consider only the projected impacts of climate change on the operations in question or to take account also of the additional climate change-inducing emissions that will be released as a consequence of the permitting decision.

252. *In re Daley Farms of Lewiston LLP*, No. A19-0207, 2019 WL 5106666 (Minn. Ct. App. Oct. 14, 2019). MPCA had granted the permit based on a feedlot-specific, less exhaustive form of environmental review—an "environmental assessment worksheet"—which did not require information concerning GHG emissions, even though (according to plaintiff) the proposed expansion would make the dairy farm in question "the 43rd-largest greenhouse-gas emitter" in Minnesota. *Id.* at *7.

253. *Id.* at *4, *8.

254. See Chris Rogers, *State OKs Daley Farm Expansion*, WINONA POST (Apr. 24, 2020), https://www.winonapost.com/news/state-oks-daley-farm-expansion/article_64722159-

so, the expansion continued to face county-level barriers.²⁵⁵ Then, in 2022, Minnesota revised its environmental review process to require new livestock feedlots, as well as other types of projects, to analyze climate impacts—including expected GHG emissions and potential mitigation measures—during environmental review.²⁵⁶ In public comments submitted in 2021 urging the state to implement this change (which had been under consideration since at least 2019),²⁵⁷ climate advocates cited the Court of Appeals’ decision in *Daley Farms* as evidence of the “risk of litigation” associated with “delaying the incorporation of climate consequences into environmental review.”²⁵⁸

Meanwhile, the government of Tulare County, California, home to Sequoia National Park, has also been forced to confront the climate consequences of animal agriculture. Environmentalists sued the county in 2018 alleging that the county’s plans to streamline the approval of dairy openings and expansions violated the California Environmental Quality Act by failing to provide for adequate consideration and mitigation of the facilities’ GHG emissions.²⁵⁹ The parties negotiated a settlement in 2019 that required the county to strengthen the permitting plan’s climate-related measures and en-

7099-57bf-81fb-d5965e54b978.html; Minn. Pollution Control Agency, Supplemental Findings of Fact, Conclusions of Law, and Order on the Daley Farms Expansion Project (Apr. 24, 2020) [on file with the Journal].

255. See Greg Stanley, *Winona County Feedlot Sues Nonprofit Members, Public Officials Over Expansion Denial*, STAR TRIBUNE (Feb. 10, 2023), <https://www.startribune.com/winona-county-feedlot-lawsuit-expansion-minnesota-environment/600250349> [https://perma.cc/NX89-FVH5].

256. Kirsti Marohn, *Minnesota Changes Environmental Review to Measure Climate Impacts*, MPR NEWS (Dec. 26, 2022), <https://www.mprnews.org/story/2022/12/26/minnesota-changes-environmental-review-to-measure-climate-impacts> [on file with the Journal].

257. *Id.*

258. See Written Public Comment of the Minn. Ctr. For Env’t Advocacy, September 2021 Environmental Quality Board Meeting, MINN. ENV’T QUAL. BD., at 55 (Sept. 15, 2021), <https://www.eqb.state.mn.us/sites/default/files/documents/September%202021%20Environmental%20Quality%20Board%20Packet.pdf> [https://perma.cc/8HVV-MTVT] (“Indeed, the Minnesota Court of Appeals has *already ruled against an RGU* [Responsible Government Unit] for failing to include climate analysis in an [environmental assessment].”).

259. Petition for Peremptory Writ of Mandate and Complaint for Declaratory and Injunctive Relief, Sierra Club et al. v. County of Tulare, No. 272380 (Cal. Super. Ct. Jan. 11, 2018), http://climatecasechart.com/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2018/20180111_docket-VCU272380-_petition-for-writ-of-mandate.pdf [https://perma.cc/DAB7-GTSX].

sure rigorous oversight, annual public reporting, and enforcement of dairies' compliance.²⁶⁰

C. The Private Sector

Relative to some of their foreign counterparts, U.S. climate litigants have delayed bringing challenges to private-sector participants in animal agriculture. However, there are early signs of accelerating interest in mounting such challenges, using both litigation and nonjudicial tools.

Most notably, days before the High Court's decision in the seminal consumer protection lawsuit against Danish Crown,²⁶¹ New York State brought a similar suit against JBS, accusing the company of violating the state's consumer protection statutes with "sweeping representations to consumers about [JBS's] commitment to reducing its greenhouse gas emissions" that the firm "has had no viable plan to meet" and "could not feasibly meet . . . because there are no proven agricultural practices to reduce its greenhouse gas emissions to net zero at the JBS Group's current scale, and offsetting those emissions would be a costly undertaking of an unprecedented degree."²⁶²

New York's lawsuit, which seeks a variety of judicially enforceable remedies, including injunctive relief, civil penalties, and disgorgement, builds on prior nonjudicial advocacy efforts.²⁶³ In 2023, the environmental NGO Mighty Earth submitted a whistleblower complaint to the SEC, seeking an investigation into "Sustainability-Linked Bonds" issued by JBS. The complaint alleged that the bonds were misleading because, among other things, the company's GHG emissions continue to grow.²⁶⁴ A month after the complaint was submit-

260. Stipulated Settlement, *Sierra Club et al. v. County of Tulare*, Case No. 272380 (Cal. Super. Ct., Aug. 2, 2019), https://www.biologicaldiversity.org/programs/environmental_health/pdfs/Settlement-Agreement-Sierra-Club-et-al-v-Tulare.pdf [<https://perma.cc/9SDN-YV4Q>].

261. See *supra* note 102 and accompanying text.

262. Complaint at 2–3, *People v. JBS USA Food Co.*, No. 450682/2024 (N.Y. Sup. Ct. Feb. 28, 2024); Press Release, Attorney General James Sues World's Largest Beef Producer for Misrepresenting Environmental Impact of Their Products, N.Y. State Attorney General (Feb. 28, 2024), <https://ag.ny.gov/press-release/2024/attorney-general-james-sues-worlds-largest-beef-producer-misrepresenting> [<https://perma.cc/C7EG-WC23>]. The JBS complaint extensively discusses the National Advertising Division proceedings discussed *infra* at notes 265–267.

263. See Complaint at 3–4, 24–27, *People v. JBS USA Food Co.*, No. 450682/2024 (N.Y. Sup. Ct. Feb. 28, 2024).

264. *Mighty Earth Files Complaint with US Securities and Exchange Commission Against JBS 'Green Bonds'*, MIGHTY EARTH, (Jan. 18, 2023), <https://mightyeearth.org/article/mighty-earth-has-filed-a-whistleblower-complaint-to-the-securities-and-exchange-commission-against-the->

ted, JBS sought to appeal a parallel finding by the National Advertising Division (NAD) of the nongovernmental Better Business Bureau, which had “determined that JBS’ ‘net zero’ claims reasonably create[d] consumer expectations that the advertiser’s efforts [we]re providing environmental benefits,” and held that JBS’s “preliminary efforts” fell short of its claims.²⁶⁵ The appellate body rejected JBS’s appeal and recommended that the firm stop making the net-zero claims at issue.²⁶⁶

JBS had claimed in part that “the SBTi [Science Based Targets initiative] recognized” its “Net Zero Commitment.”²⁶⁷ NAD recommended that JBS discontinue that claim because it did not have an SBTi “approved strategy.”²⁶⁸ After NAD’s decision, a group of NGOs wrote to the SBTi to highlight JBS’s misrepresentations about the process:

JBS... has been found to be using SBTi to make misleading green claims. The company continues to appear on SBTi’s company dashboard, even though the period (24 months) for it to get its plan approved had expired. *SBTi should urgently act to remove JBS from the committed list . . .*²⁶⁹

In March 2024, SBTi changed JBS’ status on its dashboard to “commitment removed.”²⁷⁰ Given the apparent potency of this layered, multistakeholder approach to contesting JBS’s climate representations, future climate advocates may deploy similar strategies of confluence, drawing on the full variety of advocacy channels available rather than resorting to courts in isolation.

worlds-largest-meat-processor-jbs-we-are-calling-for-the-sec-the-usas-primary-financial-re/
[<https://perma.cc/3SVG-XF8H>].

265. BBB NATIONAL PROGRAMS, *JBS Appeals National Advertising Division Recommendation to Discontinue “Net Zero” Emissions by 2040 Claims* (Feb. 15, 2023), <https://bbbprograms.org/media-center/dd/jbs-net-zero-emissions> [<https://perma.cc/NAW7-UCWX>] [hereinafter *JBS NAD Appeal*].

266. BBB NATIONAL PROGRAMS, *National Advertising Review Board Recommends JBS Discontinue “Net Zero” Emissions by 2040 Claims* (June 20, 2023), <https://bbbprograms.org/media-center/dd/narb-jbs-net-zero-emissions> [<https://perma.cc/3832-UKJ4>].

267. *JBS NAD Appeal*, *supra* note 265; see also *The Corporate Net-Zero Standard*, SCIENCE BASED TARGETS, <https://sciencebasedtargets.org/net-zero> [<https://perma.cc/6SN9-Q2U6>] (last visited Mar. 9, 2024).

268. *JBS NAD Appeal*, *supra* note 265.

269. Letter from Nusa Urbancic, CEO, Changing Markets Foundation et al., to Lila Karbassi, Chair, Science Based Targets Initiative 3 (July 12, 2023), <https://ecostandard.org/wp-content/uploads/2023/07/Letter-to-SBTi-July-2023.pdf> [<https://perma.cc/WT25-8ZT9>] (citations omitted).

270. Press Release, Mighty Earth, JBS Barred from Gold Standard for Corporate Climate Action over its “Bogus” Net Zero Plans (Mar. 7, 2024), <https://mightyearth.org/article/jbs-barred-from-gold-standard-for-corporate-climate-action-over-its-bogus-net-zero-plans> [<https://perma.cc/NFJ6-KEKX>].

* * *

Early developments in climate change and animal agriculture litigation and nonjudicial advocacy are promising. Many of these efforts have unfolded in non-U.S. jurisdictions but are adaptable to the U.S. legal context. Moreover, a growing body of U.S. cases is challenging animal agriculture's climate impacts in lawsuits directed at government policies and decisions, sometimes successfully. The following Part explores which legal theories may be available to litigants looking to bring even more ambitious animal agriculture climate lawsuits in U.S. courts.

V. FUTURE DIRECTIONS IN U.S. COURTS

In the United States, efforts to address the climate impacts of animal agriculture continue to be muted, even as compared to the still-inadequate actions taken in regard to other major sources of emissions. Just as the climate impacts of animal agriculture have not been sufficiently addressed by regulators and are not well understood by the public,²⁷¹ climate litigation also has yet to focus on the industry in earnest. Yet, for climate advocates, U.S. litigation may be especially appealing because of the failure of U.S. regulators to address the animal agriculture industry's emissions and because of the scale of the industry²⁷²: the United States exports a surplus of meat and dairy in addition to having exceptionally high domestic per capita consumption.²⁷³

This Part explores the legal claims that could fill this void, which include consumer protection, tort, financial theories, public trust and other claims directed at government, and cross-border approaches. Table 3 below provides a simplified overview of these possibilities. Also described throughout the following Sections are potential non-judicial challenges, such as administrative complaints, which may complement or fill gaps left by litigation.

In surveying many different types of claims, this Part seeks only to identify, not to develop in full, various threads that others may attempt to implement in practice in the future. Nor is this Part intended to hierarchize these possibilities or to discuss comprehensively the merits, pitfalls, or practical considerations that bringing any of

271. See discussion *supra* Part II.

272. *Id.*

273. EMISSIONS IMPOSSIBLE MEAT AND DAIRY, *supra* note 24, at 6.

these claims might entail. Those inquiries are entrusted to future scholars and practitioners.

Table 3: Overview of Potential U.S. Climate Change and Animal Agriculture Litigation

Category	Doctrinal Bases	Example Claims	Representative Case*
Consumer Protection	Common law; state and federal statutes	Fraud; failure to warn; unfair trade practices; "climate-washing"	<i>California v. Exxon Mobil Corp.</i>
Tort	Common law	Nuisance; negligence; trespass	<i>California v. Exxon Mobil Corp.</i>
Financial Claims	Common law; state and federal statutes	Derivative lawsuits; securities litigation	<i>Ramirez v. Exxon Mobil Corp.</i>
Claims Against Governments	Common law; state and federal statutes; state constitutions	Public trust; right to a healthy environment; APA; NEPA	<i>Held v. State of Montana</i>
Other Statutory Claims	State and federal statutes	Violations of environmental statutes (e.g., ESA, CWA); FOIA litigation; RICO	<i>Puerto Rico v. Exxon Mobil Corp.</i>
Cross-Border Theories	Foreign law; state and federal statutes	Claims based on multinational activities, foreign ownership, or heightened regulation in other jurisdictions; claims before multilateral institutions	<i>Comissão Pastoral da Terra v. BNP Paribas</i>

* Each of the cases listed in Table 3 is discussed as an example in this Part.

A. Consumer Protection

Consumer-centered litigation focused on an industry's deception can offer opportunities to publicly demonstrate realities previously and perhaps deliberately obscured from the broader consuming public and policymakers, as exemplified by litigation and debate surrounding the tobacco industry in the 1990s.²⁷⁴ Possible common-law claims in these contexts include fraud or misrepresentation and

274. See Angela Lipanovich, *Smoke Before Oil: Modeling a Suit Against the Auto and Oil Industry on the Tobacco Tort Litigation Is Feasible*, 35 GOLDEN GATE U. L. REV. 429, 442 (2005); Caroline Christen, *Investigation: How the Meat Industry is Climate-Washing its Polluting Business Model*, DESMOG (Jul. 18, 2021), <https://www.desmog.com/2021/07/18/investigation-meat-industry-greenwash-climatewash> [<https://perma.cc/6PH7-WJ35>].

unjust enrichment.²⁷⁵ State consumer protection statutes often prohibit false advertising and deceptive trade practices, and federal statutes may offer avenues for litigation in limited circumstances.²⁷⁶ This Section considers consumer protection actions that might take aim at the misleading public statements and marketing campaigns that buttress meat and dairy sales and help shield companies' emissions from public scrutiny.

Consumer protection claims are increasingly important given growing interest in sustainable consumption. A 2021 U.S. consumer poll showed that more than 60% of people surveyed were willing to pay more for products they perceived to be sustainable, rising to 70% among ages 18–40.²⁷⁷ Significantly, around 37% of consumers also state that concerns about climate change impact their food purchases, and many look to terms like “natural,” “green,” and “locally produced” to determine the climate impacts of their food.²⁷⁸ Many companies, including purveyors of meat and dairy, respond to these concerns by marketing their products as in some way climate-friendly, but these claims are rarely quantified for consumers' benefit or subject to third-party verification.²⁷⁹ The change that consumers seek will remain elusive if companies are free to misrepresent their climate impacts.

275. Fraud generally requires a defendant to have made a fraudulent or material misrepresentation of fact that induced consumers' justified reliance. RESTATEMENT (SECOND) OF CONTRACTS § 164(1) (AM. L. INST. 1981). In alleging common law unjust enrichment, a plaintiff must assert that the offending party has obtained an economic benefit that would be unjust for the beneficiary to retain. RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 1 (AM. L. INST. 2011).

276. Though precise statutory requirements vary, a plaintiff generally must assert that the offending party (1) made false or misleading statements resulting in (2) actual and material deception and (3) actual or likely injury to the plaintiff. *E.g.*, Minn. Stat. § 325.F69, subdiv. 1; Conn. Gen. Stat. § 735-42; Del. Code tit. 6, § 2513. A deception is material when it is likely to influence purchasing decisions by reasonable consumers. Those consumers need not always bring the claim; many statutes invite a class, market competitors, or government enforcement authorities to file suit on consumers' behalf. *See* Elizabeth O'Connor Tomlinson, 79 CAUSES OF ACTION 2d 323 (2017). Because there is substantial overlap between the elements of these common law fraud and statutory claims, they are frequently asserted together.

277. *Sustainability Features that Sway US Consumers Are Changing*, CONF. BD. (Apr. 17, 2022), <https://www.conference-board.org/topics/consumers-attitudes-sustainability/perceptions-sustainability-efforts> [<https://perma.cc/JYG3-D4PC>].

278. *Consumer Survey: Climate Change and Food Production*, FOOD INSIGHT (Apr. 2020), <https://foodinsight.org/consumer-survey-climate-change-and-food-production> [<https://perma.cc/8ZNP-LCUC>].

279. *See* EWG Petition, *supra* note 243, at 6–8.

As discussed below, animal welfare advocates have successfully utilized consumer protection claims against animal agriculture producers with respect to their claimed “humane” treatment of animals for more than a decade.²⁸⁰ Environmental advocates have done the same against food producers and other companies, from SeaWorld to Windex, for “greenwashing,” or falsely marketing their products as environmentally friendly.²⁸¹

Most recently, both prosecutors and civil plaintiffs have deployed consumer protection strategies against fossil fuel producers, alleging “climate-washing” in violation of state deceptive trade practice statutes.²⁸² The cases brought against Danish Crown and Arla Foods in Denmark and Sweden,²⁸³ as well as the NAD decision against JBS,²⁸⁴ suggest that similar climate-washing claims could prevail against animal agriculture producers.

1. Animal Welfare

In the absence of regulatory oversight, advocates have utilized litigation to challenge animal agriculture producers’ treatment of animals. These suits target misleading labels, false certifications of compliance, and failures to disclose facts about production processes, all of which misrepresent to consumers the actual animal welfare standards associated with a given product.²⁸⁵ The complaints allege violations of state consumer protection law for false advertising or deceptive trade practices, frequently alongside violations of common

280. *See, e.g.*, U.S. ex rel. Humane Soc. of U.S. v. Hallmark Meat Packing Co., No. 5:2008cv00221, 2013 WL 5753784 (C.D. Cal. 2013); U.S. ex rel. Compassion Over Killing v. Transhumance Holding Co., No. 2-17-cv-00210-MCE-CKD (E.D. Cal. 2017).

281. *Companies Accused of Greenwashing*, TRUTH ADVERT. (June 28, 2022), <https://truthinadvertising.org/articles/six-companies-accused-greenwashing> [<https://perma.cc/VP4D-QGHY>].

282. Silverman-Roati, *supra* note 7; TIGRE & BARRY, *supra* note 162, at 6 (noting “an uptick in 2023 in the number of climate change-focused greenwashing cases” in the United States).

283. *See supra* Section III(A).

284. *See supra* notes 265–268 and accompanying text.

285. *See, e.g.*, Animal Legal Def. Fund v. Hormel Foods Corp., 258 A.3d 174 (D.C. 2017); Claybaugh v. Trader Joe’s, No. RG18897085 (Ca. Sup. Ct. Mar. 15, 2018). The animal welfare cases are part of a larger trend of consumer protection litigation around food labelling. *See, e.g.*, Andrew Jacobs, *Lawsuits Over ‘Misleading’ Food Labels Surge as Groups Cite Lax U.S. Oversight*, N.Y. TIMES (Sept. 15, 2021), <https://www.nytimes.com/2021/09/07/science/food-labels-lawsuits.html> [on file with the Journal] (reporting that 110 false advertising and labeling lawsuits were filed against food and beverage producers in 2020 alone).

law fraudulent misrepresentation.²⁸⁶ Many of these cases have produced monetary awards, declaratory relief, and other favorable resolutions. Though still described as “frivolous” by some of their targets, such lawsuits have influenced companies as well known as Ben & Jerry’s and Butterball to withdraw misleading claims about their “humane” treatment of animals.²⁸⁷

In addition to animal advocates, market competitors²⁸⁸ and even the U.S. government have filed or intervened in these suits, including at the federal level. While individual consumers are typically denied standing under the Lanham Act—the federal statute that governs trade-and service-marks and unfair competition—market competitors are authorized to bring suit to prevent false product claims.²⁸⁹ The False Claims Act functions similarly with respect to contracts to which the federal government is a party. For example, in *United States ex rel. Humane Society v. Westland/Hallmark Meat Co.*, the Humane Society of the United States sued Hallmark Meat in relation to a contract for sale of beef to the national school lunch program, alleging fraud and false certification under the False Claims Act and common law fraud and negligent misrepresentation for violations of contract provisions on the treatment of animals.²⁹⁰ After the United States intervened, the suit settled, ending with a \$155 million consent judgment against Hallmark Meat.²⁹¹ The increasing incorporation of climate-related provisions in contracts creates potential for contractual claims relating to climate harms.²⁹²

286. A few also claim unjust enrichment, seeking equitable relief. *See, e.g.*, Complaint at 35, *Bohr v. Tillamook Cnty. Creamery*, No. 19CV36208 (Or. Ct. App. Mar. 5, 2021).

287. *See* Jacobs, *supra* note 285.

288. *E.g.*, *Thornton v. Tyson Foods Inc.*, 28 F.4th 1016 (10th Cir. 2022).

289. *See* Jean Wegman Burns, *Confused Jurisprudence: False Advertising Under the Lanham Act*, 79 B.U. L. REV. 807, 844 (1999).

290. *U.S. ex rel. Humane Soc. of U.S. v. Hallmark Meat Packing Co.*, No. 5:2008cv00221, 2013 WL 5753784 at *1 (C.D. Cal. 2013).

291. James Barragan, *Meatpacking Firms Reach Settlement on Animal Cruelty Charges*, L.A. TIMES (Nov. 27, 2013), <http://articles.latimes.com/2013/nov/27/local/la-me-ln-beef-school-lunch-program-20131127> [<https://perma.cc/K7L8-4DKA>]; *see also* Settlement Agreement, *U.S. ex rel. Compassion Over Killing v. Transhumance Holding Co.*, No. 2-17-cv-00210-MCE-CKD (E.D. Cal. 2017) <https://www.publicjustice.net/wp-content/uploads/2019/05/Fully-Executed-SA1.pdf> [<https://perma.cc/N8XT-XCW6>] (by which Superior Farms agreed to a \$200,000 settlement and additional federal investigation and oversight).

292. *See* *Climate Clauses: USA*, CHANCERY LANE PROJECT, <https://chancerylaneproject.org/jurisdictions/usa> [<https://perma.cc/G4DG-3K7L>]; Tom Lotshaw, *Nonprofit Launches Free Climate-Oriented Contract Clauses*, LAW360 (Sept. 19, 2023), <https://www.law360.com/articles/1722179/nonprofit-launches-free-climate-oriented-contract-clauses> (quoting nonprofit executive’s observation that “[m]any lawyers now recognize the power of contracts to make or

2. The Rise of Greenwashing Litigation

While companies were accused of misrepresenting their environmental commitments as early as the 1990s,²⁹³ significant consumer litigation about corporate greenwashing began in the early 2010s.²⁹⁴ The majority of these claims have been brought either by private individuals, as class actions, or as regulatory complaints. Like the animal welfare suits, many have resulted in the removal of misleading claims.²⁹⁵

In one prominent example, more than 100 class actions were filed against Audi and Volkswagen in the wake of 2015's "Dieselgate" scandal, alleging that the carmakers had made false representations about emissions, used "defeat devices" to evade federal and state pollution standards,²⁹⁶ and misleadingly marketed certain vehicles as "clean," selling them at substantially higher prices.²⁹⁷ The companies eventually recalled millions of vehicles worldwide and offered U.S. class members full cash refunds.²⁹⁸ Separate actions brought by state attorneys general were also settled for substantial monetary and injunctive relief.²⁹⁹

Other claims challenged through litigation range from Keurig's statements that its coffee pods are recyclable—despite there being few facilities in the United States that would recycle them³⁰⁰—to Kirkland's marketing of cleaning products that contained known tox-

break climate goals and manage climate risk and are gearing up their teams to take action"). *But see* Ramos & Chancery Lane Project, *supra* note 136, at 206–07 (noting "debate about the enforceability of climate clauses" and that "ability to enforce climate clauses depends on numerous factors, including the specifics of each contract, the relationship between the parties, and the jurisdiction").

293. *See Mobil Settles on Hefty Bags*, N.Y. TIMES D4 (June 28, 1991).

294. *See Companies Accused of Greenwashing*, *supra* note 281; Nick Feinstein, *Learning from Past Mistakes: Future Regulation to Prevent Greenwashing*, 40 B.C. ENV'T. AFF. L. REV. 229, 232 (2013).

295. *See Companies Accused of Greenwashing*, *supra* note 281.

296. *In Re: Volkswagen "Clean Diesel" Mktg., Sales Pracs., and Prods. Liab. Litig.*, 148 F. Supp. 3d 1367, 1369 (J.P.M.L. 2015).

297. Complaint at 3, *Aguilar v. Volkswagen Grp. of America, Inc.*, No. 15-cv-7741 (C.D. Cal. 2015).

298. *E.g., In Re: Volkswagen "Clean Diesel" Mktg., Sales Pracs., and Prods. Liab. Litig.*, MDL No. 2672, 2016 WL 6248426, at *4 (N.D. Cal. Oct. 25, 2016).

299. For example, Volkswagen settled with the state of New Jersey for \$72.2 million. *NJ Reaches Settlement with Volkswagen*, COURIER POST (Nov. 23, 2017), <https://www.courierpostonline.com/story/news/local/south-jersey/2017/11/23/nj-reaches-settlement-volkswagen/891826001> [<https://perma.cc/2YBL-UJT4>].

300. *Smith v. Keurig Green Mountain, Inc.*, 393 F. Supp. 3d 837, 841 (N.D. Cal. 2018).

ins as “environmentally responsible.”³⁰¹ In addition to targeted companies changing or removing individual false or misleading claims, proactively avoiding greenwashing is now a recognized element of corporate governance and risk management.³⁰²

3. Fossil Fuel Climate-Washing Litigation

Most recently, “climate-washing”³⁰³ litigation has been brought against fossil-fuel producers for advertising strategies that allegedly misrepresent their products or practices as climate-friendly.³⁰⁴ The U.S. “Carbon Majors” suits discussed above³⁰⁵ allege three major types of misrepresentation: (1) denial of climate change harms, (2) omission of knowledge about the harms of fossil fuel use, and (3) the greenwashing of defendants’ own activities.

For example, California’s 2023 suit against Exxon, Shell, Chevron, and others invokes three state-law causes of action relating to the defendants’ allegedly untrue or misleading advertising, misleading environmental marketing, and other unlawful, unfair, or fraudulent business practices.³⁰⁶ California seeks injunctions, compensatory damages, and civil penalties, asserting that the defendants sought to induce increased fossil-fuel consumption using deceptive marketing practices and “[a]ffirmatively promot[ed] the use of fossil fuels while knowing that fossil fuels would lead to devastating consequences on the climate.”³⁰⁷ As part of this decades-long “disinformation cam-

301. *Mattero v. Costco Wholesale Corp.*, 336 F.Supp.3d 1109, 1112–13 (N.D. Cal. 2019).

302. See Rashmi Dubé, *Mitigating the Risk of Greenwashing Claims*, 70 RISK MGMT. 8, 8–9 (2023). Commentators have warned companies over the last decade that a “flood” of litigation regarding green advertising could be on the horizon, and that companies must balance truth in marketing with taking advantage of the eco-conscious consumer market. See Joseph W. Price et al., *Even Courts Are Going Green: How to Protect Yourself from Greenwashing Litigation*, 48 ARK. L. 22 (Winter 2013); see also Tanya C. Nesbitt, *Rise in Greenwashing Cases: What Companies Need to Know*, THOMPSON HINE (Nov. 17, 2022), <https://www.thomsonhine.com/insights/rise-in-greenwashing-cases-what-companies-need-to-know> [<https://perma.cc/G4EK-YR9P>].

303. See Lisa Benjamin et al., *Climate-Washing Litigation: Legal Liability for Misleading Climate Communications*, CLIMATE SOC. SCI. NETWORK 4 (2022).

304. SETZER & HIGHAM, *supra* note 70, at 39–42 (“Cases concerned with mis- and disinformation on climate change are far from new, but the last few years have seen an explosion of ‘climate-washing’ cases filed before both courts and administrative bodies such as consumer protection agencies.”).

305. *Supra* notes 6–8 and accompanying text.

306. Complaint at 125–27, *California v. Exxon Mobil Corp.*, No. CGC23609134 (Cal. Super. Ct. Sept. 15, 2023), <https://oag.ca.gov/system/files/attachments/press-docs/FINAL%209-15%20COMPLAINT.pdf> [<https://perma.cc/F9NS-HSHZ>].

307. *Id.* at 126, 132–34.

paign,” California claims the defendants “falsely and misleadingly portray [fossil fuel] products as ‘green’” and “portray themselves as climate-friendly energy companies” despite “continu[ing] to primarily invest in, develop, promote, and profit from fossil fuel products,” thereby “exploit[ing] California consumers’ concerns about climate change and their desire to purchase ‘green’ products”—textbook “greenwashing,” as California’s complaint describes it.³⁰⁸

4. Toward Animal Agriculture Climate-Washing Litigation

There are several similarities that make it possible to draw from the fossil fuel cases in considering potential claims against animal agriculture producers. First, like the Carbon Majors, animal agriculture companies have known for decades—dating at least to the FAO’s 2006 report, *Livestock’s Long Shadow*³⁰⁹—that animal agriculture is a major driver of climate change.³¹⁰ Thus, as in the fossil fuel context, animal agriculture companies’ and industry groups’ pronouncements about their climate impacts can be tested against a growing body of reliable public information.

Moreover, animal agriculture producers and fossil fuel producers have utilized some similar advertising strategies. For example, the Brazilian meat producer JBS—the largest emitter of GHGs among meat and dairy producers—has stated it is working to “lower” its per-animal emissions. Yet at the same time, JBS projects growth in the number of animals it will produce (around 30% by 2030)—which will result in a rise in total emissions far outpacing these per-animal reductions.³¹¹ This initiative parallels a challenged campaign by BP advertising that it is producing “clean” petroleum products that will emit less CO₂ than its competitors’ products.³¹² At the time of that campaign, BP was simultaneously projecting that its fossil fuel sales would continue to grow by 1.6% annually up to 2035.³¹³

308. *Id.* at 79–80.

309. *LIVESTOCK’S LONG SHADOW*, *supra* note 26.

310. *See also, e.g., Emissions Impossible Series*, INST. AGRIC. & TRADE POL’Y, <https://www.iatp.org/emissions-impossible-series> [<https://perma.cc/5X6A-R7G5>].

311. *EMISSIONS IMPOSSIBLE MEAT AND DAIRY*, *supra* note 24, at 3, 11.

312. *See generally*, Complaint, *City of Annapolis v. BP P.L.C.*, No. 1:21-cv-00772, 2021 WL 2000469 (D. Md. May 19, 2021).

313. BP, *BP ENERGY OUTLOOK 96* (2017), <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/energy-outlook/bp-energy-outlook-2017.pdf> [on file with the journal].

Fossil fuel corporations also frequently advertise their investments in other forms of energy (e.g., renewables) and “cutting edge” technologies as evidence of their climate commitments. For instance, BP projects that renewable energy sources will make up more than 50% of its portfolio by 2050,³¹⁴ and Exxon regularly features its “algae biofuel” production.³¹⁵ However, as the Carbon Majors complaints point out, the relatively minute levels of actual investment allocated to these initiatives (less than one percent of annual revenue in Exxon’s case, and about 2.3 percent for BP) undercut these sustainability claims.³¹⁶ Animal agriculture firms have made headlines with similar pronouncements about their use of technological fixes like feed additives and biogas digesters—the benefits and feasibility of which are disputed³¹⁷—as well as their investments in plant-based alternatives.³¹⁸ It is currently difficult to determine whether these investments make up a significant portion of the companies’ overall spending, as most companies do not provide comprehensive financial reporting about them.³¹⁹

314. BP, BP ENERGY OUTLOOK 32 (2022), <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/energy-outlook/bp-energy-outlook-2022.pdf> [on file with the Journal].

315. Complaint at 33, *State v. Exxon Mobil Corp.*, No. HHD-CV-20-6132568-S (Conn. Super. Ct. Sept. 14, 2020).

316. *Id.* at 33; Complaint at 151, *Delaware v. BP Am. Inc.*, No. N20C-09-097, 2022 WL 58484 (Del. Super. Ct. Sept. 10, 2020).

317. See generally, e.g., Lazenby, *supra* note 248; see also, e.g., BLINDSPOT, *supra* note 60, at 37 (“[A]n action plan that relies on future, not yet commercial methane abatement technologies does not address the urgent need to reduce methane emissions.”); SASAN SAADAT ET AL., EARTHJUSTICE & SIERRA CLUB, RHETORIC VS. REALITY: THE MYTH OF “RENEWABLE NATURAL GAS” FOR BUILDING DECARBONIZATION 8–9 (July 2020), https://earthjustice.org/wp-content/uploads/report_building-decarbonization-2020.pdf [<https://perma.cc/YVF7-7B7Z>]; Jan Dutkiewicz & Matthew Hayek, *Want Carbon-Neutral Cows? Algae Isn’t the Answer*, WIRED (Mar. 17, 2021), <https://www.wired.com/story/carbon-neutral-cows-algae> [on file with the Journal]; Ben Elgin, *Why Won’t Companies Use This Quick Fix to Reduce Cow Methane Emissions?*, BLOOMBERG (June 28, 2023), <https://www.bnnbloomberg.ca/why-won-t-companies-use-this-quick-fix-to-reduce-cow-methane-emissions-1.1938885> [<https://perma.cc/J52G-786H>] (identifying cost of feed additives as a barrier to their use, even by large companies that have made aggressive climate commitments).

318. See, e.g., Philip H. Howard, *Op-ed: Giant Meat and Dairy Companies Are Dominating the Plant-Based and Cellular Meat Market*, CIVIL EATS (Sept. 22, 2021), <https://civileats.com/2021/09/22/op-ed-giant-meat-and-dairy-companies-are-dominating-the-plant-based-protein-market> [<https://perma.cc/PYH9-3MD6>]; Laurie Bedord, *Cargill Acquires Delacon to Create Plant-Based Phyto-genetic Feed Additives*, SUCCESSFUL FARMING (June 23, 2022), <https://www.agriculture.com/news/livestock/cargill-acquires-delacon-to-create-plant-based-phyto-genetic-feed-additives> [<https://perma.cc/FVZ3-U9HK>].

319. BLINDSPOT, *supra* note 60, at 38. In fact, some meat and dairy executives have stated that plant-based products are “an addition to, not a subtraction from” meat production models.

As more information has emerged about the climate impacts of animal agriculture—including its outsize role in emitting the climate super-pollutant methane—animal agriculture companies and trade groups have engaged in communications strategies and advertisements that may expose them to consumer protection claims. For example, many animal agriculture companies do not publicly report their GHG emissions; even those that do may underreport their emissions (for example, by excluding “Scope 3” emissions produced by the animals themselves and feed production).³²⁰ Paired with public-facing positive statements about an animal product’s climate impacts, such under-reporting or non-reporting could expose these firms to legal risk. Moreover, animal agriculture companies—like other heavy emitters—have relied on carbon offsets to address their climate impacts.³²¹ Litigation is starting to challenge such reliance, especially when used to support positive climate pronouncements.³²² The recent lawsuit filed by the New York Attorney General against JBS explicitly alleges that, if JBS were to try to rely on carbon offset credits to underpin its net zero pledge, “it is unclear whether sufficient credits would be available or could feasibly be afforded by the JBS Group given the volume of [its] reported emissions and forecasted growth plans.”³²³

Some animal agriculture companies are also engaging in carbon “insetting,”³²⁴ or claiming to reduce GHG emissions within their own supply chains, for example by incorporating “regenerative” practices.³²⁵ Where poorly supported, such claims may also be chal-

DANIEL JONES ET AL., *FEEDBACK, IT’S BIG LIVESTOCK VERSUS THE PLANET* 23 (2020), <https://feedbackglobal.org/wp-content/uploads/2020/04/Feedback-Big-Livestock-versus-the-Planet-Final-April-2020.pdf> [<https://perma.cc/ENK4-3ZUF>].

320. *EMISSIONS IMPOSSIBLE MEAT AND DAIRY*, *supra* note 24, at 2, 5, 24; Lazarus et al., *supra* note 56, at 9.

321. *EMISSIONS IMPOSSIBLE MEAT AND DAIRY*, *supra* note 24, at 10–11; Lazarus et al., *supra* note 56, at 14.

322. *See, e.g.*, First Amended Complaint, *Berrin v. Delta Air Lines*, No. 2:23-cv-04150 (C.D. Cal. July 19, 2023); Christopher Cole, *Litigation Beginning to Challenge Carbon Offsets*, *JDSUPRA* (June 19, 2023), <https://www.jdsupra.com/legalnews/litigation-beginning-to-challenge-8894527> [<https://perma.cc/CQ8Z-U9KJ>].

323. Complaint at 32, *People v. JBS USA Food Co.*, No. 450682/2024 (N.Y. Sup. Ct. Feb. 28, 2024). For further discussion, see *supra* notes 262–263 and accompanying text.

324. *Explainer: Carbon Insetting vs Offsetting*, *WORLD ECON. F.* (Mar. 18, 2022), <https://www.weforum.org/agenda/2022/03/carbon-insetting-vs-offsetting-an-explainer> [<https://perma.cc/KJ79-2CAU>].

325. *See, e.g.*, Press Release, Smithfield Foods, Smithfield Foods to Become Carbon Negative by 2030 (Sept. 3, 2020), <https://www.smithfieldfoods.com/press-room/2020-09-03-Smithfield-Foods-to-Become-Carbon-Negative-by-2030> [<https://perma.cc/T95G-XH4H>] (iden-

lenged.³²⁶ As the animal welfare suits demonstrate, lawsuits against animal agriculture companies are no longer just for interested advocates; successful cases may also benefit industry competitors and governments, with significant monetary awards that could attract private law firms' attention.³²⁷

Cases of coordinated deception may also implicate consulting, advertising, or public relations firms.³²⁸ Fossil fuel producers have worked with the top five U.S. advertising agencies for decades, and their advertising is under increased scrutiny.³²⁹ Depending on the underlying facts, similar claims may exist against advertising and public relations firms linked to animal agriculture companies.

Non-judicial petitions—for example to federal agencies such as the SEC and FTC³³⁰—could urge agencies or state attorneys general to

tifying regenerative agriculture as one of its strategies to achieve “new carbon negative objective”); *JBS is Committing to be Net Zero by 2040*, JBS, <https://jbs.com.br/netzero/en> [<https://perma.cc/5W4K-5KJH>] (last visited Jan. 30, 2024) (describing research investments in “improvements in regenerative farming practices”).

326. See, e.g., Chris Casey & Shaun Lucas, *Regenerative Ag is Driving Food Sustainability Promises, But is it Greenwashing?*, FOOD DIVE (Apr. 27, 2023), <https://www.fooddive.com/news/regenerative-ag-is-driving-food-sustainability-promises-but-is-it-greenwas/648583> [<https://perma.cc/83XY-8ZTX>]; but see *Dwyer v. Allbirds, Inc.*, 598 F. Supp. 3d 137, 145, 149–51 (S.D.N.Y. 2022) (dismissing consumer protection challenge under New York law to marketing claims about the environmental impact of wool shoes as “a criticism of the [defendant’s chosen] methodology,” which had failed to consider land use changes and methane emissions from enteric fermentation, rather than as “a description of a false, deceptive, or misleading statement about the Product”).

327. See Christopher Doering, *Coca-Cola and Others Agree to \$21M Settlement for Fairlife Animal Abuse Lawsuits*, FOOD DIVE (May 3, 2022), <https://www.fooddive.com/news/fairlife-21m-animal-abuse-settlement-coca-cola/623045> [<https://perma.cc/RRT4-9VC5>]; see also discussion of *Hallmark Meat* and *Compassion Over Killing*, *supra* notes 290–291 and accompanying text.

328. See NAYANTARA DUTTA, CLEAN CREATIVES, SMOKE AND MIRRORS: THE LEGAL RISKS OF FOSSIL FUEL ADVERTISING 3 (Apr. 2022), <https://static1.squarespace.com/static/5f5aab4d184791593e07cd03/t/625df6d000adf6508b4c928e/1650325201119/Clean+Creatives+Smoke+And+Mirrors+Report+v3.pdf> [<https://perma.cc/ZPZ6-Z9UM>]. For example, in 2021, McKinsey & Co. paid nearly \$600 million for its role in promoting disinformation and overprescribing of opioids. Michael Forsythe & Walt Bogdanich, *McKinsey Settles for Nearly \$600 Million Over Role in Opioid Crisis*, N.Y. TIMES (Nov. 5, 2021), <https://www.nytimes.com/2021/02/03/business/mckinsey-opioids-settlement.html> [on file with the Journal].

329. See DUTTA, *supra* note 328, at 6.

330. Complaints to the FTC can rely on the agency’s “Green Guides,” which provide companies with general principles for environmental marketing. *Green Guides*, FED. TRADE COMM’N, <https://www.ftc.gov/news-events/topics/truth-advertising/green-guides> [<https://perma.cc/LNU9-K4YC>] (last visited Jan. 30, 2024). The FTC has the authority to initiate suits to prevent representations which do not align with the Guides. 16 C.F.R. § 260.1 (2012). The FTC is working on an updated version of the Green Guides that is expected to include substantial new environmental content, likely to be issued in 2024. Guides for the Use of Environmental Mar-

undertake their own investigations and enforcement actions (as New York has³³¹) or to engage in rulemaking.³³² Some private standard-setting bodies operate their own complaint mechanisms, like the Better Business Bureau's NAD (already successfully leveraged against JBS, as discussed above³³³), which may also shape industry behavior.³³⁴ In a recent example, complaints to the U.K.'s self-regulatory Advertising Standards Authority³³⁵ argue that ads supported with government funding breach advertising codes by promoting beef, lamb, and dairy consumption using natural imagery while omitting information about negative environmental impacts, including on the climate.³³⁶

* * *

As awareness about the role of animal agriculture in climate change grows, more information about the climate impacts,

keting Claims, 88 Fed. Reg. 7656 (proposed Feb. 6, 2023) (to be codified at 16 C.F.R. pt. 260); Latham & Watkins Env't, Social & Governance Prac., *The Future of Green Marketing: Anticipated Changes to the FTC's Green Guides*, 3124 CLIENT ALERT COMMENT 1-3 (June 27, 2023), <https://www.lw.com/admin/upload/SiteAttachments/The-Future-of-Green-Marketing-Anticipated-Changes-to-the-FTCs-Green-Guides.pdf> [<https://perma.cc/37MS-LEZ9>] (explaining that forthcoming Green Guide updates are likely to address "certain thorny environmental marketing claims that [the FTC] declined to weigh in on" in the current 2012 edition, including relating to climate change).

331. *Supra* notes 262-263 and accompanying text.

332. See Food & Water Watch Complaint, *supra* note 240 (asking the FTC to investigate and take enforcement action against Smithfield Foods for misleading consumers regarding the environmental impacts of its pork products); EWG Petition, *supra* note 243 (asking USDA to curtail "climate-friendly" claims on consumer meat products).

333. *Supra* notes 265-268 and accompanying text.

334. While the FTC dismisses the majority of complaints it receives and brings only a few major cases per year, the National Advertising Division (NAD) may be a more favorable body for greenwashing complaints, offering public recommendations in response to complaints nearly daily. *BBB National Programs Decision Summaries*, BETTER BUS. BUREAU (2022), <https://bbbprograms.org/media-center/decisions> [<https://perma.cc/VF4Y-4GJR>]. Because NAD also bases its determinations on the FTC Green Guides, the relevant standards for both bodies are roughly the same.

335. *About the ASA and CAP*, ADVERTISING STANDARDS AUTHORITY, <https://www.asa.org.uk/about-asa-and-cap/about-regulation/about-the-asa-and-cap.html> [<https://perma.cc/9V7N-YG7C>] (last visited Mar. 9, 2024).

336. *E.g.*, Complaint to the Advertising Standards Board re: Agriculture and Horticulture Development Board "Let's Eat Balanced" Adverts, AdFree Cities, 2, 6-8 (Jan. 6, 2024), https://adfreecities.org.uk/wp-content/uploads/2024/01/Lets-Eat-Balanced_AHDB_2024_AFC-complaint-to-ASA.pdf [<https://perma.cc/5ZQJ-YQ2F>]; *but see* ASA Ruling on Agriculture and Horticulture Development Board t/a AHDB, Complaint Ref. G21-1092229 Agriculture and Horticulture Development Board (Aug. 18, 2021), <https://www.asa.org.uk/rulings/agriculture-and-horticulture-development-board-g21-1092229-agriculture-and-horticulture-development-board.html> [<https://perma.cc/CY67-U86Y>] (dismissing prior complaints concerning similar advertisements).

knowledge, representations, and denials of major animal agriculture companies becomes available, and individuals continue to become more conscious about their consumption, consumer protection litigation may emerge as an important strategy. Future developments in the Carbon Majors cases will help clarify the relevant judicial landscape. Already, though, early indications suggest that consumer protection lawsuits may help hold companies in the animal agriculture supply chain responsible for statements about climate change. That in turn could incentivize animal agriculture firms to reduce their emissions or, at the very least, to forgo misleading eco-advertising strategies, allowing consumers to make more informed choices. However, consumer protection litigation is *not* well-suited to holding animal agriculture producers liable directly for their underlying climate contributions. Plaintiffs interested in obtaining such an outcome may turn instead to the common law of torts.

B. Tort

Climate tort litigation may implicate one or both of two broad categories of conduct: (1) contributions to climate change and its impacts; and (2) failure to adapt operations to mitigate climate change risks.³³⁷ Although U.S. litigation in this area has so far focused primarily on the Carbon Majors, animal agriculture could also be pursued in tort for its own contributions to climate change. And many animal agriculture operations also risk exposure to claims in the second category, especially as the urgency of adaptation to protect neighboring communities increases.³³⁸

Some scholars have expressed skepticism of tort litigation as a standalone climate mitigation strategy.³³⁹ Others have argued that tort law can and should be adapted to help address climate change, following examples of doctrinal innovation in prior contexts, such as toxic torts, in which courts were likewise presented with vast numbers of defendants, each accused of causing additive, difficult-to-

337. THOMAS MCGARITY ET AL., CTR. FOR PROGRESSIVE REFORM, CLIMATE JUSTICE: STATE COURTS AND THE FIGHT FOR EQUITY 11–12 (2019), <http://progressivereform.org/our-work/energy-environment/climate-justice-state-courts-and-fight-equity/> [<https://perma.cc/926A-RGJP>].

338. See HRIBAR, *supra* note 67, at 7–8 (detailing climate-related risks that exacerbate CAFO-associated harms, including heavy storms, floods, and heat).

339. See, e.g., Douglas A. Kysar, *What Climate Change Can Do About Tort Law*, 41 ENV'T L. 1, 4 (2011) (“[T]ort law is unlikely to play a substantial role in the ultimate effort to reduce greenhouse gas emissions.”).

measure harm over decades of operation.³⁴⁰ With the Carbon Majors cases yet to reach decisions on the merits, how courts might treat climate tort claims remains largely unknown.³⁴¹ New Zealand's trial-bound *Fonterra* case could offer valuable insight into how common law courts might grapple with innovative climate tort claims, including against animal agriculture.³⁴² For now, particularly in the United States, animal agriculture companies are untested—but, compared to fossil fuel companies, possibly even more vulnerable—climate tort defendants.³⁴³

1. Climate Tort Liability Theories

A review of climate tort litigation against fossil fuel producers reveals several causes of action that, by analogy, may be the basis of future claims against animal agriculture, including nuisance (public and private), negligence, and trespass.³⁴⁴

340. See Saad, *supra* note 73, at 903–07. Saad notes a doctrinal innovation made by some courts in toxic tort cases that has particular relevance to the “limitless defendants” problem raised by the New Zealand Court of Appeal in *Fonterra*: “a substantial factor test which recognizes liability for contributions to harm that exceed negligible or theoretical levels.” Compare Caroline E. Foster, *Novel Climate Tort? The New Zealand Court of Appeal Decision in Smith v Fonterra Co-operative Group Limited and Others*, 24 ENV'T L. REV. 224, 226 (2022) (summarizing the *Fonterra* court's concerns regarding “the potentially limitless classes of potential defendants” in climate tort suits) with Saad, *supra* note 73, at 906 n.225 (noting that a substantial factor test could “could distinguish a consumer's negligible contribution to the harm from a fossil fuel producer's substantial contribution”).

341. See *supra* notes 6–8 and accompanying text.

342. See *supra* Section II(B).

343. Jonathan Lovvorn, *Climate Change Beyond Environmentalism Part II: Near-Term Climate Mitigation in a Post Regulatory Era*, 30 GEO. ENV'T L. REV. 203, 250–52 (2018) (noting “it is now widely accepted that trying to apply tort theory to climate change is not likely to be a fruitful avenue of development,” with a possible exception for “factory farms” and relative optimism vis-à-vis litigation “at the state level”); Daniel E. Walters, *Animal Agriculture Liability for Climatic Nuisance: A Path Forward for Climate Change Litigation*, 44 COLUM. J. ENV'T. L. 299 (2019).

344. Claims of products liability (i.e., common law tort liability “for harm to persons or property” caused by a manufacturing defect, design defect, or failure to warn, see RESTATEMENT (THIRD) OF TORTS: PROD. LIAB. § 1–2 (AM. L. INST. 1998)), have also been asserted against fossil fuel producers in relation to the climate harms of their products. As the climate-related harms of animal agriculture become even better understood, and alternative proteins and emissions-mitigating technologies proliferate, analogous claims relating to animal products could conceivably be asserted.

a. Nuisance

Within the common law tradition, nuisance has long played an important role in remedying environmental problems.³⁴⁵ Unlike other torts, such as negligence—for which liability is determined in reference to the defendant’s conduct—nuisance depends in part on “the interest invaded.”³⁴⁶ Private nuisance suits have been used to address local environmental problems unresolved by regulation or statute; public nuisance claims have played a major role in imposing liability for widespread environmental harm, including interstate pollution.³⁴⁷ Thus, public nuisance is widely understood as the cause of action most suitable to litigation urging climate change mitigation, with private nuisance playing a more prominent role in suits regarding failures to adapt.³⁴⁸

Public nuisance encompasses “significant interference” with public health or safety, as well as conduct that knowingly produces a “long-lasting . . . significant effect upon the public right.”³⁴⁹ Whether conduct can be considered “knowing” is a question of its foreseeability “to a reasonable person.”³⁵⁰ To demonstrate reasonable foreseeability, suits against fossil fuel companies have referenced not only the scientific consensus on anthropogenic climate change but also evidence that specific defendants “knew or should have known of the dangers associated with the extraction, promotion, and sale of their fossil fuel products.”³⁵¹ Similar claims may be levied against animal agriculture actors who have long known of their climate contributions.³⁵²

345. See Roger Meiners & Bruce Yandle, *Common Law and the Conceit of Modern Environmental Policy*, 7 GEO. MASON L. REV. 923, 926–946 (1999); Andrew Jackson Heimert, *Keeping Pigs Out of Parlors: Using Nuisance Law to Affect the Location of Pollution*, 27 ENV’T L. 403, 406–08 & n.7 (1997).

346. RESTATEMENT (SECOND) OF TORTS § 822, comment a (AM. L. INST. 1979); see also Albert C. Lin, *Public Trust and Public Nuisance: Common Law Peas in a Pod?*, 45 U.C. DAVIS L. REV. 1075, 1077 (2012).

347. Walters, *supra* note 343, at 301.

348. See, e.g., P. Leigh Bausinger, *Welcome to the (Impenetrable) Jungle: Massachusetts v. EPA, the Clean Air Act and the Common Law of Public Nuisance*, 53 VILL. L. REV. 527 (2008); Thomas Merrill, *Global Warming as a Public Nuisance*, 30 COLUM. J. ENV’T L. 293 (2005).

349. RESTATEMENT (SECOND) OF TORTS § 821B (AM. L. INST. 1979); WOLFGANG KAHL & MARC-PHILIPPE WELLER, *CLIMATE CHANGE LITIGATION: A HANDBOOK* 251 (1st ed. 2021).

350. KAHL & WELLER, *supra* note 349, at 251.

351. Complaint at 6, *Pac. Coast Fed’n of Fishermen’s Ass’ns, Inc. v. Chevron Corp.*, No. CGC-18-571285 (Cal. Sup. Ct. Nov. 14, 2018).

352. *LIVESTOCK’S LONG SHADOW*, *supra* note 26.

Private nuisance, meanwhile, entails intentional or negligent harm to the use and enjoyment of land.³⁵³ Bringing a private nuisance claim in the climate change context, whether against a fossil fuel producer or a meat producer, raises additional difficulties associated with tracing the private harm at issue back to a particular defendant's emissions. Plaintiffs must be able to show causation, likely by linking their particular injury—which, even in a *public* nuisance suit, must be individually “distinguishable”—not only to climate change generally but to defendants' particular contributions to climate change.³⁵⁴

Private nuisance tort litigation against animal agriculture has succeeded in the past, though not yet on climate-related grounds.³⁵⁵ The well-known *Murphy Brown* judgment, in addition to its bracing acknowledgement of the harms attributable to intensive animal agriculture,³⁵⁶ highlights several issues relevant to possible climate tort litigation against similar defendants. In particular, the court dismissed Murphy-Brown's argument that its operations, being legal and appropriately permitted, could not be considered nuisances per se, holding that “lawful enterprises can constitute a nuisance in fact.”³⁵⁷ The court also noted that Murphy-Brown had known in the years “predating the lawsuit . . . of scientific studies and state government documents” detailing some of the harmful effects of industrial hog operations.³⁵⁸

A climate theory of private nuisance might achieve similar success with a localized claim concerning the failure of animal agricultural facilities “to adapt their operations to reasonably foreseeable harms induced or driven by climate change.”³⁵⁹ These include increased risks of extreme weather and flooding, which could result in the release of pollutants from agricultural facilities into neighboring communities' air and water.³⁶⁰ The Conservation Law Foundation (CLF) has brought a number of suits against fossil fuel companies for their

353. RESTATEMENT (SECOND) OF TORTS § 822 (AM. L. INST. 1979).

354. KAHL & WELLER, *supra* note 349, at 251.

355. McKiver v. Murphy-Brown, LLC, 980 F.3d 937 (4th Cir. 2020).

356. *See, e.g.*, Murphy-Brown, 980 F.3d at 978 (Wilkinson, J., concurring) (“What was neglected is that animal welfare and human welfare, far from advancing at cross-purposes, are actually integrally connected. The decades-long transition to [CAFOs] lays bare this connection, and the consequences of its breach, with startling clarity.”).

357. *Id.* at 967.

358. *Id.* at 947–48.

359. MCGARITY ET AL., *supra* note 337, at 11.

360. *Id.* at 11.

failures to adapt petroleum storage terminals to the threat of sea-level rise.³⁶¹ Although those suits arise under the citizen enforcement provisions of the Resource Conservation Recovery Act and the CWA, CLF has suggested that the “failure to act reasonably in the face of ascertainable climate risk” could also give rise to common law tort liability.³⁶² That risk is no less ascertainable to the animal agriculture industry. One could imagine such a claim against, for example, the owner of a large-scale hog operation that has failed to adapt its facility to protect neighboring property owners from harms that could be caused by climate-induced flooding.³⁶³

b. Negligence

Failures to adapt could also form the foundation of negligence claims against the fossil fuel and animal agriculture industries, as could other misconduct. Successful negligence claims require four key elements: duty, breach, causation, and injury. A breach of duty sounding in negligence occurs when one fails to “exercise reasonable care” despite the “foreseeable likelihood that [one’s] conduct will result in harm, the foreseeable severity of any harm that may ensue, and the burden of precautions to eliminate or reduce the risk of harm.”³⁶⁴

Plaintiffs have pointed to fossil fuel producers’ failures to adopt “available technologies, energy sources, and business practices that would have mitigated their greenhouse gas pollution” as breaches of this “duty of due care.”³⁶⁵ That GHG emissions are presently a legal, industry-wide phenomenon does not preclude their characterization

361. See, e.g., Complaint for Declaratory and Injunctive Relief and Civil Penalties, Conservation L. Found. v. ExxonMobil No. 1:16-CV-11950 (D. Mass. Sept. 29, 2016) ; Complaint for Declaratory and Injunctive Relief and Civil Penalties, Conservation L. Found. v. Shell Oil Prods. US, No. CV 17-396 (D. R.I. Oct. 8, 2019).

362. DEANNA MORAN & ELENA MIHALY, CONSERVATION L. FOUND. & BOSTON GREEN RIBBON COMM’N, CLIMATE ADAPTATION AND LIABILITY: A LEGAL PRIMER AND WORKSHOP SUMMARY REPORT 5–7 (Jan. 2018), https://www.clf.org/wp-content/uploads/2018/01/GRC_CLF_Report_R8.pdf [<https://perma.cc/DAE5-JSNA>].

363. For further discussion of the Conservation Law Foundation suits, the Clean Water Act, and the Resource Conservation and Recovery Act, see *infra* note 498 and accompanying text.

364. RESTATEMENT (THIRD) OF TORTS: PHYS. & EMOTIONAL HARM § 3 (AM. L. INST. 2010).

365. Complaint at 121–22, Mayor & City Council of Baltimore v. BP p.l.c., No. 24-C-18-004219, (Md. Cir. Ct. July 20, 2018); see also Complaint at 86, Pac. Coast Fed’n of Fishermen’s Ass’ns, Inc. v. Chevron Corp., No. CGC-18-571285 (Cal. Sup. Ct. Nov. 14, 2018) (making similar claims in near-verbatim terms). *Baltimore* makes these allegations under the cause of action “negligence (design defect),” while *Pacific Coast Federation* refers simply to “negligence.”

as negligent, since neither regulatory authorization nor industry custom is an absolute defense to liability.³⁶⁶

Allegations of a “negligent failure to warn” also appear in these suits in an effort to hold fossil fuel producers liable not only for harms caused by their products, but for their failure to inform consumers of those harms. That failure begins to appear negligent when cast in the light of “the grave dangers presented by the climate effects . . . of fossil fuel products,” of which, it is claimed, any “reasonable” producer would have warned consumers.³⁶⁷ These claims are most likely to prevail when supported by evidence that “the defendant actually knows of the relevant danger.”³⁶⁸

As noted above, the animal agriculture sector appears to have long had such knowledge of the harmful impact of its products on the climate.³⁶⁹ If a trier of fact is convinced that the fossil fuel industry acted negligently in continuing to market fossil fuel products, one might similarly accept analogous claims made against animal agriculture.

c. Trespass

This discussion of private-law possibilities cannot overlook trespass. Where sea level rise or other geographic changes induced by climate change harm a plaintiff’s land, a trespass claim may be tenable against those responsible for the “intrusion.” Trespass liability does not require defendants to have entered the land themselves; “causing” invasion or “entry of a thing” is sufficient.³⁷⁰ For example, Rhode Island has alleged that various fossil fuel producers “caused flood waters, extreme precipitation, landslides, saltwater, and other materials to enter [Rhode Island’s] property, by extracting . . . and[] selling fossil fuel products” despite “knowing those prod-

366. See Susan Rose-Ackerman, *Regulation and the Law of Torts*, 81 AM. ECON. REV. 54, 55 (1991) (“[C]ompliance with [a regulatory] standard is merely evidence for the jury to consider in determining reasonable conduct.”); T.J. Hooper v. Northern Barge Co., 60 F.2d 737, 740 (2d Cir. 1932) (“Courts must in the end say what is required; there are precautions so imperative that even their universal disregard will not excuse their omission.”).

367. Complaint at 89, Pac. Coast Fed’n of Fishermen’s Ass’ns, Inc. v. Chevron Corp., No. CGC-18-571285 (Cal. Sup. Ct. Nov. 14, 2018).

368. RESTATEMENT (THIRD) OF TORTS: PHYS. & EMOTIONAL HARM § 18 (AM. L. INST. 2010).

369. See *supra* notes 309–310 and accompanying text.

370. RESTATEMENT (FIRST) OF TORTS § 158 (AM. L. INST. 1934).

ucts . . . would cause global and local sea levels to rise . . .”³⁷¹ New York City’s Carbon Majors suit includes a similar trespass claim.³⁷²

Plaintiffs might prefer to bring preemptive claims under other causes of action based on failures of adaptation and prevention, rather than waiting until climate-induced intrusions have actually occurred before filing suit under a trespass theory. Moreover, like private nuisance, trespass is only available as a cause of action to landowners.³⁷³ Still, trespass claims appear well-suited to certain climate-related harms caused by animal agriculture facilities, such as storm-driven manure overflow.³⁷⁴ Trespass is less likely than other causes of action, including nuisance, to be addressed by states’ “right to farm” laws, which may otherwise be an obstacle to some climate change and agriculture tort claims in the United States.³⁷⁵

2. Potential Obstacles to Climate Tort Claims: Displacement, Preemption, and Right-to-Farm Laws

There are several potential federal and state law barriers to the success of climate tort claims. Notably, claims centered on animal agriculture differ from fossil-fuel claims in key respects in relation to these obstacles.

a. Federal Common Law Claims

The Supreme Court has interpreted federal environmental statutes—the CAA in particular—to displace certain fossil fuel-related climate tort claims that might otherwise be available under federal common law. In *American Electric Power*, the Court held that federal common law public nuisance claims against the electricity and transportation sectors were displaced because the CAA “speak[s] di-

371. Complaint at 133–34, *State v. Chevron Corp.*, No. PC-2018-4716 (R.I. Super. Ct. Aug. 13, 2020).

372. See Complaint at 1, *City of New York v. Chevron Corp.*, 993 F.3d 81 (2d Cir. 2021) (No. 18-cv-182).

373. RESTATEMENT (FIRST) OF TORTS § 158(a) (AM. L. INST. 1934).

374. See, e.g., *Aerie Point Holdings LLC v. Vorsteveld Farm LLC*, No. 22-AP-279, 2023 WL 2867097, at *1 (Vt. Apr. 7, 2023) (affirming trial court order following merits decision that “plaintiff proved its claims of trespass against defendant,” operator of a major dairy farm, “based on the disposal of wastewater from a tile drain system onto plaintiff’s land”).

375. See discussion *infra* notes 390–398 and accompanying text.

rectly” to the issue of GHG emissions in delegating authority thereover to EPA.³⁷⁶

The Court has not addressed, however, whether federal common law claims are displaced with respect to animal agriculture emissions, sources of which vary meaningfully across supply chains, from enteric methane released by grazing animals to manure methane associated with stationary CAFO lagoons. It is not clear that the CAA or any other “statutory framework . . . speaks directly” to any of these emissions.³⁷⁷ Nor does the CAA subject animal agriculture emissions (unlike motor vehicle emissions) to its exclusive regulatory jurisdiction.³⁷⁸ Indeed, animal agriculture and the GHG emissions it produces presently escape most CAA regulations, including because EPA has not designated such operations as a “major source” of pollution.³⁷⁹ That said, the broad text of some CAA provisions, including the New Source Performance Standards of Section 111, could be read to grant EPA the authority to regulate at least some animal agriculture emissions, such as those produced by domestic CAFOs.³⁸⁰ EPA itself has previously declined to determine whether or not Section 111 renders CAFO emissions regulable.³⁸¹

Whether the agency has actually exercised its power is formally immaterial to the Court’s displacement analysis, but Congress must in fact have made the statutory delegation.³⁸² Recent developments in administrative law jurisprudence tending to favor narrower in-

376. *Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 423–24 (2011).

377. Walters, *supra* note 343, at 300 (contending that “courts should be able to maneuver around the displacement barriers to hear a properly pled federal common law of nuisance action against offending meat producers”).

378. See § 209 of the Clean Air Act (CAA), 42 U.S.C. § 7401 *et. seq.* (1988).

379. See J. B. Ruhl, *Farms, Their Environmental Harms, and Environmental Law*, 27 *ECOLOGY L.Q.* 263, 293 (2000) (featuring an inventory of “safe harbors” for agriculture in environmental law, including the CAA); Ryan Levandowski, *Polluting ‘til the Cows Come Home: How Agriculture Exceptionalism Allows CAFOs Free Range for Climate Harm*, 33 *GEO. ENV’T L. REV.* 151, 163–66 (2020).

380. See Petition from the Assoc. of Irrigated Residents to U.S. Env’t Prot. Agency to List Industrial Dairy and Hog Operations as Source Categories under Section 111(b)(1)(A) of the Clean Air Act (Apr. 6, 2021), <https://food.publicjustice.net/wp-content/uploads/sites/3/2021/04/2021.04.06-Industrial-Dairy-and-Hog-CAA-111-Petition-FINAL.pdf> [<https://perma.cc/PJ9B-WAAP>]. Even on this reading, though, the CAA would still not regulate *foreign* emissions caused by animal agriculture firms. See *City of New York v. Chevron Corp.*, 993 F.3d 81, 101 (2d Cir. 2021) (finding that CAA does not apply extraterritorially).

381. See Letter from E. Scott Pruitt, Adm’r, U.S. Env’t. Prot. Agency, to Tom Frantz, President, Association of Irrigated Residents (Dec. 15, 2017), <https://www.regulations.gov/document?D=EPA-HQ-OAR-2017-0638-0003> [<https://perma.cc/NL6E-5E7D>].

382. See *City of Milwaukee v. Illinois (Milwaukee II)*, 451 U.S. 304, 324 (1981).

terpretations of statutes delegating regulatory power may lend support to the notion that Congress has not in fact “spoken directly” to animal agriculture emissions and thus that federal common law is not displaced with respect to the same.³⁸³

b. State Common Law Claims

State common law claims risk not displacement, but preemption. Under this doctrine, federal law preempts state laws covering the same subject matter.³⁸⁴ While the Supreme Court has not addressed whether the CAA preempts state common law tort claims related to climate change,³⁸⁵ the Third and Sixth Circuits have both held that the CAA does not preempt state nuisance, negligence, and trespass claims against emitters.³⁸⁶

In *City of New York v. Chevron*, however, the Second Circuit held that climate tort claims relating to interstate emissions could *not* proceed under state law. The court held that “a nuisance suit seeking to recover damages for the harms caused by global greenhouse gas emissions” was too “sprawling” to proceed under state common law, concluding that “federal common law preempts state law” and reaffirming that “the Clean Air Act displaces federal common law claims concerned with domestic greenhouse gas emissions.”³⁸⁷ A Delaware Superior Court judge recently held similarly in that state’s Carbon Majors suit while allowing state-law claims concerning air

383. See, e.g., *West Virginia v. Env’t Prot. Agency*, 597 U.S. 697, 732–35 (2022) (applying the “major questions doctrine” to invalidate EPA regulatory attempts to shift electricity generation away from coal); see also Zachary Hennessee, *Resurrecting a Doctrine on Its Deathbed: Revisiting Federal Common Law Greenhouse Gas Litigation After Utility Air Regulatory Group v. EPA*, 67 DUKE L.J. 1073 (2018) (arguing that “the Supreme Court’s decision in *Utility Air Regulatory Group v. EPA* [ARG] may have created a new opening for federal common law nuisance litigation as a means to address climate change”); see also *West Virginia*, 597 U.S. at 730–31 (reiterating *American Electric Power* without explicitly extending its displacement holding beyond “emissions from powerplants”).

384. See *Cipollone v. Liggett Grp., Inc.*, 505 U.S. 504 (1992).

385. See *Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 429 (2011) (declining to reach the issue).

386. *Bell v. Cheswick Generating Station*, 734 F.3d 188, 190, 192 (3d Cir. 2013); *Merrick v. Diageo Americas Supply, Inc.*, 805 F.3d 685, 691 (6th Cir. 2015) (“State common law standards are thus ‘requirements’ adopted by ‘States,’ such that the Clean Air Act states’ rights savings clause preserves them against preemption.”); see also *Freeman v. Grain Processing Corp.*, 848 N.W.2d 58, 63 (Iowa 2014) (reaching the same conclusion).

387. *City of New York v. Chevron Corp.*, 993 F.3d 81, 92–95 (2d Cir. 2021).

pollution within the state to proceed.³⁸⁸ Still, even if the logic of such rulings were adopted more widely, preemption—like displacement at the federal level—may not preclude emissions-related claims against animal agriculture to the extent such emissions are not covered by EPA’s congressionally delegated regulatory authority.³⁸⁹

State climate tort claims against animal agriculture do, however, face industry-specific statutory barriers. All fifty states have adopted “right to farm” laws that shield agriculture (to varying degrees) from lawsuits grounded in state tort law. Most commonly, such laws codify the common law “coming to the nuisance” defense, which protects preexisting agriculture operations from nuisance claims.³⁹⁰ For example, Illinois’ right to farm law protects farms from liability for any “private or public nuisance” attributable to “changed conditions in the surrounding area,” unless the nuisance results from the farm’s negligence or improper operation.³⁹¹ Right to farm laws are more relevant to claims tied closely to particular agricultural operations, as opposed to supporting activities such as marketing, promotion, and distribution.

The prospects for state law climate tort claims against animal agriculture will depend on how narrowly the laws’ various exceptions are construed—a question of statutory interpretation subject to intense debate with respect to similar immunity-granting statutes.³⁹² For example, many states’ right to farm laws explicitly limit their protections to agricultural operations that comply with applicable regulations, including environmental and public health laws, and adhere to “generally accepted” or “reasonable” practices.³⁹³ Given the ubiquity of animal agriculture operations producing substantial GHG emissions, such standards-of-conduct provisions may not exclude these operations from the protection conferred by right to farm

388. *State ex rel. Jennings v. BP Am. Inc.*, No. N20C-09-097, 2024 WL 98888, at *24 (Del. Super. Ct. Jan. 9, 2024) (“This Court finds that claims in this case seeking damages for injuries resulting from out-of-state or global greenhouse emissions and interstate pollution, are preempted by the CAA.”).

389. *See* *Am. Elec. Power Co.*, 564 U.S. at 426; *supra* notes 376–383 and accompanying text.

390. Dowell, *supra* note 207, at 40.

391. Illinois Farm Nuisance Suit Act, 740 ILL. COMP. STAT. ANN. 70/3 (2018).

392. *See, e.g.*, *Soto v. Bushmaster Firearms Int’l, LLC*, 331 Conn. 53 (2019) (applying federal Protection of Lawful Commerce in Arms Act, which immunizes firearms manufacturers from civil liability for harm caused by the use of their products, in lawsuit brought by relatives of Sandy Hook victims); *see also* Henry Weaver & Douglas A. Kysar, *Courting Disaster: Climate Change and the Adjudication of Catastrophe*, 93 NOTRE DAME L. REV. 295, 317 (2017).

393. Dowell, *supra* note 207, at 40–42.

laws.³⁹⁴ But even if some right to farm laws do preclude some nuisance claims in some circumstances,³⁹⁵ they often do not affect tort liability under other causes of action. Many expressly prohibit only nuisance, or nuisance and trespass.³⁹⁶ Thus, notwithstanding significant variation in right to farm laws' scope,³⁹⁷ at least some states' statutes should permit, for example, negligence claims that might be made against agricultural facilities for their failure to adapt to the increased risks associated with a changing climate.³⁹⁸

* * *

Tort theories, while complex and underexplored, appear to hold some promise for climate change and animal agriculture litigants. Federal common law tort claims may not be statutorily displaced, unlike similar claims relating to fossil fuels; some state tort claims may evade preemption and right to farm laws, including claims based on failures to adapt farming facilities to increasingly severe weather events. Faced with these persistent uncertainties, however, some plaintiffs may look to other bodies of law in which relevant duties and obligations have been more clearly defined.

C. Financial Claims

Climate change is already exacting a harsh economic toll, and future costs are projected to be even more severe.³⁹⁹ Animal agricul-

394. *But cf.* *McKiver v. Murphy-Brown, LLC*, 980 F.3d 937 (4th Cir. 2020), discussed *supra* notes 355–358 and accompanying text.

395. See Richard H. Middleton, Jr. & Charles F. Speer, *A Rural Revolution: The Rise of Nuisance Suits Against Animal Factories* 15–16 (2014) (unpublished article) <https://www.vtla.us/2014/Convention/Materials/Section17-Middleton.pdf> [<https://perma.cc/NK9P-7PPJ>] (discussing circumstances in which nuisance claims may proceed despite right to farm laws).

396. Dowell, *supra* note 207, at 40; *but see id.* (noting that “[e]ven in states where only nuisance is expressly mentioned in the statute, courts have construed right to farm laws to provide a legal defense to producers for claims beyond nuisance,” usually trespass).

397. *Compare, e.g.*, N.C. GEN. STAT. § 106-702(d) (2021) (“This Article does not apply to any cause of action brought against an agricultural or forestry operation for negligence, trespass, personal injury, strict liability, or other cause of action for tort liability other than nuisance.”); with FLA STAT. § 823.14 (2022) (“‘Nuisance’ . . . includes all claims that meet the requirements of this [statute’s] definition, regardless of whether the plaintiff designates those claims as brought in nuisance, negligence, trespass, personal injury, strict liability, or other tort.”).

398. See MCGARITY ET AL., *supra* note 337, at 11; *cf.* Emma Platoff, *As Lawsuits Over Texas Chemical Disaster Add Up, Advocates Blame Arkema and Rules Regulating It*, TEXAS TRIBUNE (Mar. 30, 2018), <https://www.texastribune.org/2018/03/30/arkema-disaster-harvey-regulations-texas-crosby> [<https://perma.cc/AL6N-HCHP>] (describing lawsuits filed after a chemical plant “failed to take proper precautions” in advance of Hurricane Harvey).

399. SWISS RE INST., THE ECONOMICS OF CLIMATE CHANGE: NO ACTION NOT AN OPTION 1 (Apr. 2021), <https://www.swissre.com/dam/jcr:e73ee7c3-7f83-4c17-a2b8-8ef23a8d3312/swiss->

ture is subject to a broad spectrum of climate-related financial risks. As a driver of climate change with substantial responsibility for GHG emissions,⁴⁰⁰ animal agriculture faces reputational, regulatory, and litigative exposure.⁴⁰¹ The industry is also itself directly vulnerable to climate impacts, including via decreased yields and increased costs of animal feed crops, harms to animals themselves, and damage to physical infrastructure.⁴⁰² Given meat's high price elasticity relative to other food products, resulting increases in meat prices could have a significant dampening effect on sales.⁴⁰³ A recent analysis by

re-institute-expertise-publication-economics-of-climate-change.pdf [https://perma.cc/XAG6-2ZYH] (noting the world could “lose close to 10% of total economic value by mid-century if climate change stays on the currently-anticipated trajectory”).

400. See discussion *supra* Part II.

401. See, e.g., Sato et al., *supra* note 6 (concluding that “lenders, financial regulators, and governments should consider climate litigation risk as a relevant financial risk in a warmer future”); Leander Raes et al., *A Guide to Investing in Landscape Restoration to Sustain Agrifood Supply Chains*, IUCN 10 (2023), <https://portals.iucn.org/library/sites/library/files/documents/2023-010-En.pdf> [https://perma.cc/XW3U-84KZ] (“Many food and agribusiness are increasingly requested to disclose climate and nature risks.”); FAIRR & INT’L INST. FOR APPLIED SYS. ANALYSIS, COLLIER FAIRR CLIMATE RISK TOOL: THE FINANCIAL IMPACT OF CLIMATE CHANGE ON THE LIVESTOCK SECTOR 12 (2023), <https://go.fairr.org/2023-Collier-FAIRR-Climate-Risk-Tool-Public-Report> [on file with the Journal] [hereinafter FAIRR LIVESTOCK FINANCIAL CLIMATE RISK] (finding that animal agriculture “companies will be particularly vulnerable to climate-related regulatory and market risks”) (emphasis in original); Thom Wetzer et al., *Climate Risk Assessments Must Engage with the Law*, 383 SCIENCE 152, 152 (2024) (“[L]egal action [including climate litigation and regulatory enforcement] shifts or amplifies physical and transition risk exposures and creates additional climate risk exposures.”).

402. E.g., Michelle Nowlin & Emily Spiegel, *Much Ado About Methane: Intensive Animal Agriculture and Greenhouse Gas Emissions*, in RESEARCH HANDBOOK ON CLIMATE CHANGE AND AGRICULTURAL LAW 228, 243 (Mary Jane Angelo & Anél Du Plessis eds., 2017) (“Livestock production is not only a contributor to climate change, but also a sector deeply affected by it.”); DAVID CARLIN ET AL., U.N. ENV’T PROGRAMME: FIN. INITIATIVE, CLIMATE RISKS IN THE AGRICULTURE SECTOR, 7–9 (2023), <https://www.unepfi.org/wordpress/wp-content/uploads/2023/03/Agriculture-Sector-Risks-Briefing.pdf> [https://perma.cc/H365-WTSW]; Philip Thornton et al., *Impacts of Heat Stress on Global Cattle Production During the 21st Century: A Modelling Study*, 6 THE LANCET: PLANETARY HEALTH 192 (2022); NIGEL KEY ET AL., U.S. DEP’T OF AGRIC., CLIMATE CHANGE, HEAT STRESS, AND U.S. DAIRY PRODUCTION 23 (2014), https://www.ers.usda.gov/webdocs/publications/45279/49164_err175.pdf?v=8347.8 [https://perma.cc/5YYK-K26C] (noting heat stress cost the average dairy thirty-nine thousand dollars in 2010, or roughly \$1.2 billion nationally); C.M. Godde, et al., *Impacts of Climate Change on the Livestock Food Supply Chain; A Review of the Evidence*, 28 GLOB. FOOD SEC. 1 (2021).

403. Tatiana Andreyveda et al., *The Impact of Food Prices on Consumption: A Systematic Review of Research on the Price Elasticity of Demand for Food*, 100 AM. J. PUB. HEALTH 216 (2010). Indeed, though many consumers express a preference for sustainable foods, relative prices appear to play a key role in consumers’ actual purchasing decisions. See Glynn T. Tonsor, Jayson L. Lusk, & Ted C. Schroeder, *Market Potential of New Plant-Based Protein Alternatives: Insights from Four US Consumer Experiments*, 45 APPL. ECON. PERSPECTIVES & POL’Y 164, 174 (2022) (finding that price changes have small but significant cross-product impacts on consumption of

the FAIRR Initiative found that the world's largest meat and dairy companies are positioned to lose significant value due to climate change, including through shifts in consumer demand, new climate-related regulations and taxes, and the direct costs of a warming climate, such as expected spikes in the price of feed crops.⁴⁰⁴

As discussed in this Part, financial stakeholders from shareholders to pension beneficiaries are aware of the climate risks facing industries like fossil fuels; some have sued to protect the value of their investments, basing their complaints on corporate fiduciary duties and financial laws. Financiers themselves have been sued in efforts to interrupt investments in emissions-intensive industries. Such lawsuits are grounded in the idea that a failure to mitigate and address climate risks is bad for the business itself.⁴⁰⁵ These dynamics and rationales apply in equal or greater measure to the business of animal agriculture.

Shareholders of animal agriculture corporations may consider derivative suits against directors⁴⁰⁶ for breaching their fiduciary duties by inadequately addressing the risks that climate change poses to corporate profits.⁴⁰⁷ A shareholder derivative action is a suit in equity brought by the shareholders of a corporation, whether individuals or institutional investors, against directors for harm caused by their breach of fiduciary duties.⁴⁰⁸ Because the harm alleged is that suf-

meat versus meat alternatives); Bhagyashree Katare et al., *Consumer Willingness to Pay for Environmentally Sustainable Meat and a Plant-Based Meat*, 45 APPLIED ECON. PERSPS. & POL'Y 145, 158–59 (finding that “information nudges” do not alter consumer preferences and proposing they be paired with price-impacting “fiscal policy, such as Pigouvian taxes,” in order to “effectively direct consumption behavior”).

404. FAIRR LIVESTOCK FINANCIAL CLIMATE RISK, *supra* note 401, at 3 (“[B]usiness as usual is going to lose the world’s 40 biggest livestock producers almost \$24 billion of [earnings before interest and taxes] by the end of this decade. More than half of them will have their profits wiped out altogether.”); *cf.* Patrick Thomas, *Why Your Steak Is Getting Pricier*, WALL ST. J. (June 1, 2023), <https://www.wsj.com/articles/beef-prices-high-summer-barbecue-12a08905> [on file with the Journal] (linking “persistent drought” and other “cost increases” to lower profits for processors, including JBS).

405. SETZER & HIGHAM, *supra* note 70, at 37–38.

406. The rules governing directors’ fiduciary duties generally apply equally to corporate officers. *See Gantler v. Stephens*, 965 A.2d 695, 709 n.36 (Del. 2009). Though corporations law varies by state, Delaware law, on which we focus here, is particularly influential.

407. While only a relatively small number of animal agriculture firms are publicly traded, many public companies rely on inputs from animal agriculture and could be vulnerable to similar claims.

408. John H. Matheson, *Restoring the Promise of the Shareholder Derivative Suit*, 50 GA. L. REV. 327, 344 (2016).

ferred by the company,⁴⁰⁹ any recovery is awarded to the company.⁴¹⁰ The harm to the shareholders is indirect (or derivative) in that the general diminution of the value of the company harms shareholders' investments.⁴¹¹

Corporate directors have broad discretion to make business decisions, but that discretion is meaningfully constrained by their duties of care and loyalty.⁴¹² The duty of care requires that directors "act in an informed and deliberate manner in making decisions about the corporation,"⁴¹³ utilizing "all material information reasonably available to them."⁴¹⁴ The duty of loyalty requires that corporate directors "act in good faith, lawfully, and in the best interest of the company" and is primarily concerned with preventing conflicts of interest and self-dealing.⁴¹⁵ The duties of care and loyalty together give rise to a duty of disclosure,⁴¹⁶ which requires directors "to disclose fully and fairly all material information within the board's control when it seeks shareholder action."⁴¹⁷

409. Mark J. Loewenstein, *Shareholder Derivative Litigation and Corporate Governance*, 24 DEL. J. CORP. L. 1, 4 (1999).

410. Jessica Erickson, *The Lost Lessons of Shareholder Derivative Suits*, 77 WASH. & LEE L. REV. 1131, 1137 (2020).

411. There are several specific obstacles that plaintiffs in shareholder derivative suits must overcome, including the contemporaneous and continuous share ownership rules, security for expense statutes, the business judgment rule, the demand requirement, and special litigation committees. *Id.* at 1141; *see also* Richard C. Brown, *Shareholder Derivative Litigation and the Special Litigation Committee*, 42 U. PITT. L. REV. 601, 604 (1982).

412. Lisa Benjamin, *The Road to Paris Runs Through Delaware: Climate Litigation and Directors' Duties*, 2020 UTAH L. REV. 313, 355–56 (2020).

413. Matheson, *supra* note 408, at 338 (quoting *Smith v. Van Gorkom*, 488 A.2d 858, 873 (Del. 1985)); *see also* Cynthia A. Williams, *Fiduciary Duties and Corporate Climate Responsibility*, 74 VAND. L. REV. 1875, 1887; Katherine M. King, *Marchand v. Barnhill's Impact on the Duty of Oversight: New Factors to Assess Directors' Liability for Breaching the Duty of Oversight*, 62 B.C. L. REV. 1925, 1931 (2021).

414. *Smith*, 488 A.2d at 872 (quoting *Aronson v. Lewis*, 473 A.2d 805, 812 (1984)). Limiting the duty of care, Delaware courts apply a gross negligence standard, rendering the safeguard more procedural than substantive (in other words, focusing on the process of decision-making rather than the outcome). *Id.* at 873; *Brehm v. Eisner*, 746 A.2d 244, 264 (Del. 2000). States may also allow corporations to limit liability for breaches of the duty of care via exculpation clauses in their certificates of incorporation. *See, e.g.*, DEL. CODE ANN. tit. 8, § 102(b)(7) (2022).

415. Williams, *supra* note 413, at 1891; Matheson, *supra* note 408, at 336–37.

416. *Dohmen v. Goodman*, 234 A.3d 1161, 1168 (Del. 2020); Lawrence A. Hamermesh, *Calling Off the Lynch Mob: The Corporate Director's Fiduciary Disclosure Duty*, 49 VAND. L. REV. 1087, 1095–96 (1996) (describing duty of disclosure as an "ill-defined hybrid" of duties of loyalty and care).

417. *Stroud v. Grace*, 606 A.2d 75, 84 (Del. 1992); *see also* Williams, *supra* note 413, at 1887 (explaining that the duty of disclosure requires directors to share "economically significant

Since the mid-1990s, some courts have come to recognize an important additional fiduciary duty: the duty of oversight or monitoring. In *In re Caremark International Inc. Derivative Litigation*, the Delaware Court of Chancery held that the duty of care included a duty to provide for an “adequate” “corporate information and reporting system.”⁴¹⁸ The Delaware Supreme Court reaffirmed this duty in 2006 in *Stone v. Ritter*, holding that directors breach their fiduciary duties if they “fail to act in the face of a known duty to act, thereby demonstrating a conscious disregard for their responsibilities.”⁴¹⁹ A so-called “*Caremark* claim” requires plaintiffs to prove directors’ failure either “to implement any reporting or information system or controls” or “to monitor or oversee [the reporting system’s] operations thus disabling themselves from being informed of risks or problems requiring their attention.”⁴²⁰ While *Caremark* claims have not yet been brought based on climate risks⁴²¹ and have historically been difficult to prove,⁴²² recent developments suggest that the standards are loosening.⁴²³

Fiduciary duties serve to ensure that corporate directors act in the company’s best interest, often defined with reference to shareholder wealth maximization.⁴²⁴ Key to the context of long-horizon prob-

information . . . and to communicate honestly”); *Malone v. Brincat*, 722 A.2d 5, 10 (Del. 1998) (“[W]hen directors communicate publicly or directly with shareholders about corporate matters the *sine quo non* of directors’ fiduciary duty to shareholders is honesty.”).

418. *In re Caremark Int’l Inc. Derivative Litig.*, 698 A.2d 959, 970 (Del. Ch. 1996). Although *Caremark* framed the duty of oversight as part of the duty of care, it is now held to be part of the duty of loyalty. Williams, *supra* note 413, at 1892. This shift was important because (as discussed *supra* note 414) exculpation provisions that shield directors from liability only apply to the duty of care, and because the deference afforded to directors and officers under the business judgment rule does not apply to the duty of loyalty.

419. *Stone v. Ritter*, 911 A.2d 362, 370 (Del. 2006) (quoting *In re Walt Disney Co. Deriv. Litig.*, 906 A.2d 693, 767 (Del. Ch. 2005)).

420. *Stone*, 911 A.2d at 370.

421. SARAH BARKER ET AL., COMMONW. CLIMATE & L. INITIATIVE, EXECUTIVE SUMMARY: FIDUCIARY DUTIES AND CLIMATE CHANGE IN THE UNITED STATES 5–8 (2021), <https://ccli.ubc.ca/wp-content/uploads/2021/12/Fiduciary-duties-and-climate-change-in-the-United-States.pdf> [<https://perma.cc/M86L-KTV2>]; see also Andrew W. Winden, *Caremark’s Climate Failure*, 74 HASTINGS L.J. 1167, 1172 (2023).

422. Gregory L. Watts, “I Got a Bad Feeling about This”: Are *Caremark’s* Walls Closing in on Directors?, 30 CLASS ACTIONS & DERIV. SUITS 15, 15 (2019).

423. *Id.* at 16; see generally *Marchand v. Barnhill*, 212 A.3d 805 (Del. 2019); *In re Clovis Oncology*, No. 2017-0222-JRS, 2019 WL 4850188 (Del. Ch. Oct. 1, 2019).

424. The shareholder wealth maximization norm requires a corporate board to “place shareholder financial wealth . . . ahead of any other value . . .” Joan MacLeod Heminway, *Shareholder Wealth Maximization as a Function of Statutes, Decisional Law, and Organic Documents*, 74 WASH. & LEE L. REV. 939, 960 (2017) (internal citation omitted).

lems like climate change is whether these concepts permit—or even require—directors to consider the long-term effects of their decisions rather than maximizing only short-term outcomes. Delaware courts have acknowledged that, at least as to the duty of loyalty, directors *must* include long-term considerations.⁴²⁵

Shareholder derivative suits invoking fiduciary duties have become an important tool of corporate governance,⁴²⁶ and are increasingly grounded in notions of corporate social responsibility that appear broader than wealth maximization alone.⁴²⁷ For example, a 2006 derivative suit against BP for major environmental and safety failures led to significant corporate governance and oversight reforms, including tying executive compensation to environmental, health, and safety performance.⁴²⁸ Shareholder derivative suits have also been filed to address sexual harassment and sex discrimination in the workplace,⁴²⁹ as well as in response to companies' failures to take adequate safety measures during the COVID-19 pandemic.⁴³⁰

At the confluence of trends in climate litigation and shareholder derivative suits lie actions intended “to create liability for corporate directors who fail to consider and properly address significant levels of GHG emissions.”⁴³¹ Shareholder derivative actions could press di-

425. *In re Trados Inc. S'holder Litig.*, 73 A.3d 17, 37 (Del. Ch. 2013) (quoting DEL. CODE ANN. tit. 8, § 102(b)(5) (2012) and § 122(1) (1953)) (“A Delaware corporation, by default, has a perpetual existence . . . [T]he duty of loyalty therefore mandates that directors maximize the value of the corporation over the long-term . . .”); *see also* Frederick Hsu Living Tr. v. ODN Holding Corp., No. 12108-VCL, 2017 WL 1437308, at *18 (Del. Ch. 2017). Some scholars have questioned the dominance of the shareholder maximization norm and asked whether directors could choose to privilege other goals above shareholder profits. Heminway, *supra* note 424, at 948, 951.

426. Loewenstein, *supra* note 409, at 4.

427. Williams, *supra* note 413, at 1879.

428. Robbins Geller Rudman & Dowd, LLP, *BP Shareholders Force Major Governance Reforms* (2008), <https://www.rgrdlaw.com/NEWS-ITEM-BP-GOVERNANCE-REFORMS-032608.HTML> [<https://perma.cc/E84C-EDDH>].

429. Scott Carlton, *The #MeToo Movement and the Shareholder Derivative Action*, ABA. Prac. Points (Apr. 24, 2019), <https://www.americanbar.org/groups/litigation/committees/class-actions/practice/2019/me-too-movement-lawsuits-shareholder-derivative-action/> [<https://perma.cc/AJV2-QZBU>].

430. Shannah Farmer et al., *Shareholder Derivative Suits – The Next Wave of COVID-19 Litigation?*, Ballard Spahr (2021), <https://www.ballardspahr.com/insights/alerts-and-articles/2021/04/shareholder-derivative-suits-the-next-wave-of-covid-19-litigation> [<https://perma.cc/E2A6-BMWB>] (discussing a suit against Tyson alleging directors took inadequate precautions to protect slaughterhouse workers during the pandemic).

431. Bradley Cosman, *Green Derivatives: Extorting Reductions in Greenhouse Gas Emissions via Shareholder Derivative Suits*, 40 ARIZ. ST. L.J. 743, 745 (2008); *see also* Benjamin, *supra* note

rectors, in the discharge of their fiduciary duties, to consider the threat that climate change poses to corporate profits.⁴³² Exxon Mobil shareholders have filed numerous derivative suits claiming that Exxon directors have misrepresented climate-related risks and failed to adequately account for the costs of climate adaptation.⁴³³ The non-profit ClientEarth, with support from institutional investors, filed a derivative lawsuit against Shell's directors in the United Kingdom, which was ultimately dismissed for failure to state a claim.⁴³⁴ ClientEarth's CEO has vowed that more lawsuits against company directors for failures to meet their fiduciary duties in respect of climate "will absolutely come."⁴³⁵

The fraud and misrepresentation on which shareholder derivative suits can be based could also give rise to securities class actions seeking to recover economic losses suffered by plaintiff investors, rather than harms incurred by the corporation itself.⁴³⁶ Some securities class actions alleging climate-related misrepresentations by fossil fuel companies have already been filed, claiming violations of securities laws prohibiting deception.⁴³⁷ Securities class actions may

412, at 317; Ben Clapp & Casey J. Snyder, *Climate Change Litigation Trends: 2015–2020*, 36 NAT. RES. & ENV'T 1, 4 (2021).

432. Benjamin, *supra* note 412, at 319; *see also* Perry E. Wallace, *Climate Change, Corporate Strategy, and Corporate Law Duties*, 44 WAKE FOREST L. REV. 757, 760 (2009); Williams, *supra* note 413, at 1908; Cosman, *supra* note 431, at 745.

433. *See, e.g.*, Order, *In re Exxon Mobil Corp. Derivative Litig.*, No. 3:19-cv-1067 (N.D. Tex. Aug. 6, 2019) (consolidating shareholder derivative actions alleging Exxon misrepresented the business impacts of climate change).

434. ClientEarth v. Shell [2023] EWHC 1897 (Ch); Press Release, ClientEarth, Our Ground-breaking Case Against Shell's Board of Directors Comes to an End (July 24, 2023), <https://www.clientearth.org/latest/latest-updates/news/we-re-taking-legal-action-against-shell-s-board-for-mismanaging-climate-risk> [<https://perma.cc/GA27-RLBQ>].

435. Isabella Kaminski, *ClientEarth CEO: More Lawsuits Against Company Directors 'Will Absolutely Come'*, WAVE (Nov. 1, 2023), <https://www.the-wave.net/email/cefd6e5e-1e1b-464e-9b0b-7248954eb505/?ref=the-wave-newsletter> [<https://perma.cc/7MU7-5HRB>]; *see also* SHARIF A. SHIVJI ET AL., NATURE-RELATED RISKS AND DIRECTORS' DUTIES UNDER THE LAW OF ENGLAND AND WALES: OPINION, COMMONWEALTH CLIMATE & L. INITIATIVE 5 (Mar. 11, 2024), <https://commonwealthclimatelaw.org/wp-content/uploads/2024/03/Nature-related-risks-and-directors-duties-under-the-law-of-England-and-Wales.pdf> [<https://perma.cc/V7JP-PWB7>] (concluding that company directors in the UK could be liable for failing to consider and account for how nature-related risks, including climate, will affect their business).

436. Deborah A. DeMott, S'HOLDER DERIVATIVE ACTIONS: L. & PRAC. §1:1 (2021–2022).

437. *E.g.*, Ramirez v. Exxon Mobil Corp., No. 16-CV-03111, 2023 WL 5415315 (N.D. Tex. Aug. 21, 2023) (certifying a class of Exxon investor plaintiffs alleging regulatory violations in connection with Exxon's climate-related reserve accounting and disclosures).

also rest on climate-washing and green-washing allegations.⁴³⁸ As climate disclosures become more robust⁴³⁹ and climate change inflicts deeper economic losses on animal agriculture investors, animal agriculture's GHG emissions, climate risk planning, and representations to investors may become the subject of such challenges.

Providing another useful tool, every state grants shareholders the right to inspect the books and records of corporations in which they hold stock.⁴⁴⁰ Section 220 of the Delaware Code is a model.⁴⁴¹ Although a Section 220 books and records inspection is formally independent of shareholder derivative litigation, it often functions as a pre-filing mechanism akin to (albeit less extensive than) discovery,⁴⁴² allowing shareholders to acquire information they need to succeed in litigation.⁴⁴³ Even when a board provides no documents of the requested type, the lack of records can be used by shareholders as evidence of failure of oversight in a *Caremark* claim.⁴⁴⁴

In order to inspect a corporation's books and records, a shareholder must have a "proper purpose."⁴⁴⁵ Investigating corporate mismanagement, including breaches of fiduciary duty, in order to bring derivative litigation or pursue other remedies qualifies as such.⁴⁴⁶ Once shareholders have demonstrated a proper purpose, they are entitled to inspect those books and records "necessary to

438. *E.g.*, Consolidated Complaint at 21, *In re Oatly AB Sec. Litig.*, No. 21-cv-06360 (S.D.N.Y. Mar. 4, 2022) (alleging that oat milk company's claims relating to environmental and climate benefits were overstated); *Hunt v. Bloom Energy Corp.*, No. 19-CV-02935-HSG, 2021 WL 4461171, at *10 (N.D. Cal. Sept. 29, 2021).

439. *Infra* notes 557, 561-566 and accompanying text.

440. Browning Jeffries, *Shareholder Access to Corporate Books and Records: The Abrogation Debate*, 59 *DRAKE L. REV.* 1087, 1088 (2011).

441. DEL. CODE ANN. tit. 8, § 220 (2010).

442. *E.g.*, *Sec. First Corp. v. U.S. Die Casting & Dev. Co.*, 687 A.2d 563 (Del. 1997); *KT4 Partners LLC v. Palantir Techs. Inc.*, 203 A.3d 738, 755 (2019).

443. Stephen A. Radin, *The New Stage of Corporate Governance Litigation: Section 220 Demands - Reprise*, 28 *CARDOZO L. REV.* 1287, 1291 (2006); *Cohen v. El Paso Corp.*, No. 551-N, 2004 WL 2340046, at *2 (Del. Ch. Oct. 18, 2004) (explaining that Delaware courts "have repeatedly admonished shareholder plaintiffs to seek books and records before filing class or derivative complaints, so that they may prepare a factually accurate and legally sufficient pleading").

444. *KT4 Partners*, 203 A.3d at 758 ("[I]f a company has no documents at all . . . that itself is information a § 220 petitioner can use . . ."); *Woods v. Sahara Enter., Inc.*, 238 A.3d 879, 896 (2020) ("It would be an exceptional board of directors that could satisfy its duty of oversight without creating any books and records.").

445. DEL. CODE ANN. tit. 8, § 220 (2010); *see also Woods*, 238 A.3d at 889 (citing *CM & M Gp., Inc. v. Carroll*, 453 A.2d 788, 792 (Del. 1982)). "Proper purposes" has been broadly interpreted. *See, e.g., Woods*, 238 A.3d at 889 ("There is no shortage of proper purposes.").

446. *Id.* (citing *Melzer v. CNET Networks, Inc.*, 934 A.2d 912, 917 (Del. Ch. 2007)); *see also AmerisourceBergen Corp v. Leb. Cnty. Emps' Ret. Fund.*, 243 A.3d 417, 427, 430 (Del. 2020).

accomplish” it,⁴⁴⁷ including emails, text messages, and other informal forms of electronic communications in certain circumstances.⁴⁴⁸

Books and records inspections could support shareholder derivative litigation related to animal agriculture corporations’ GHG emissions in several ways, including by demonstrating that shareholders have exhausted available tools before initiating litigation. Information uncovered through this process may strengthen claims that directors breached their duty of oversight if, for example, they made no good-faith effort to consider the risks of climate change. Shareholders have already begun using books and records inspections to develop climate change-related litigation⁴⁴⁹ and target other misconduct in the animal agriculture industry.⁴⁵⁰ In Australia, for example, shareholders succeeded in a claim to inspect documents related to the target bank’s application of its own climate policies to fossil-fuel lending decisions.⁴⁵¹

Non-litigative shareholder proposals, also known as resolutions, are also available to qualified shareholders of publicly traded companies.⁴⁵² Unless the company “file[s] its reasons” for excluding a proposal with the SEC, resolutions are included alongside management’s proposals in the corporation’s proxy materials for a shareholder vote.⁴⁵³ Changes to SEC policy during the Biden Administra-

447. *AmerisourceBergen Corp.*, 243 A.3d at 427. Under this standard, “the court must give the petitioner everything that is ‘essential,’ but stop at what is ‘sufficient.’” *KT4 Partners*, 203 A.3d at 752 (citing *Amalgamated Bank v. Yahoo! Inc.*, 132 A.3d 752, 775 (Del. Ch. 2016)).

448. Roy Shapira, *Corporate Law, Retooled: How Books and Records Revamped Judicial Oversight*, 42 *CARDOZO L. REV.* 1949, 1964 (2021). Although formal board materials are often sufficient, a company cannot choose “to keep shareholders in the dark” by “decid[ing] to conduct formal corporate business largely through informal electronic communications.” *KT4 Partners*, 203 A.3d at 742, 752–53.

449. *E.g.*, *Jacob v. Bloom Energy Corp.*, No. CV 2020-0023-JRS, 2021 WL 733438 (Del. Ch. Feb. 25, 2021).

450. Verified Shareholder Derivative Complaint for Injunctive Relief, Declaratory Judgment, and Damages, for Breach of Fiduciary Duty and Ultra Vires Acts at 3 n.1, *Smith v. Vachris*, No. 22-2-08937 (Wash. Super. Ct. June 12, 2022), <https://www.legalimpactforchickens.org/costco-complaint> [<https://perma.cc/SZ65-ZAP8>] (seeking books and records related to alleged mistreatment of chickens).

451. *Abrahams v Commonwealth Bank of Australia*, NSD864 (2021) (Austl.).

452. Matthew J. Petrozziello, *Beyond Cracker Barrel: Shareholder Proposals as a Means of Effectuating CSR Policies*, 13 *RUTGERS BUS. L.J.* 22, 23 (2016); Elise N. Rindfleisch, *Shareholder Proposals: A Catalyst for Climate Change-Related Disclosure, Analysis, and Action*, 5 *BERKELEY BUS. L.J.* 45, 48 (2008). To qualify to submit a proposal, a shareholder must have held at least \$2,000 in market value for at least three years, \$15,000 for at least two years, or \$25,000 for at least one year. 17 C.F.R. § 240.14a-8(b)(1)(i) (2023).

453. 17 C.F.R. § 240.14a-8(j) (2023); Rindfleisch, *supra* note 452, at 57.

tion have made climate-related proposals more likely to survive company efforts to exclude them.⁴⁵⁴

While proposals are non-binding even if adopted, boards can face consequences if they fail to respond or implement them.⁴⁵⁵ Moreover, advocates of proposals often measure their success by indicators other than majority shareholder support or implementation of the exact reform requested.⁴⁵⁶ For example, shareholder proposals relating to social policy issues can attract significant media attention and raise public awareness, boosting the reputational consequences of corporate decision-making.⁴⁵⁷ Shareholder proposals are also expensive for corporations to include on the ballot,⁴⁵⁸ so filing them can give shareholders leverage to trade their withdrawal for desired reforms.⁴⁵⁹

Shareholder proposals regarding GHG emissions have had some success in changing corporate priorities,⁴⁶⁰ including among major

454. SEC Staff Legal Bulletin No. 14L (Nov 3, 2021) (“Going forward we would not concur in the exclusion of [climate-related] proposals that suggest targets or timelines so long as the proposals afford discretion to management as to how to achieve such goals.”); Cydney Posner, *SEC Proposes to Narrow Three Substantive Exclusions in the Shareholder Proposal Rule*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Aug. 8, 2022), <https://corpgov.law.harvard.edu/2022/08/04/sec-proposes-to-narrow-three-substantive-exclusions-in-the-shareholder-proposal-rule> [<https://perma.cc/VG36-CNFY>].

455. James J. Hanks, Jr. et al., *Responding to Stockholder Proposals, Director Elections and Say-On-Pay Votes*, VENABLE (Nov. 4, 2022), <https://www.venable.com/insights/publications/2022/11/responding-to-stockholder-proposals-director> [<https://perma.cc/VBK2-PQBB>] (discussing proxy advisory firms’ responses to non-implementation of proposals, including one prominent firm’s recommendation to vote against directors if no action is taken on proposals supported by as little as 20% of shareholders).

456. Summer Hallaj, *A Decent Proposal: How Animal Welfare Organizations Have Utilized Shareholder Proposals to Achieve Greater Protection for Animals*, 47 J. MARSHALL L. REV. 795, 808–09 (2013); see also Petrozziello, *supra* note 452, at 30–32.

457. Petrozziello, *supra* note 452, at 31.

458. Hallaj, *supra* note 456, at 810 (“Corporations frequently choose to negotiate with the proponents of a shareholder proposal, instead of allowing the resolution to be voted down at the annual shareholder meeting, because including a proposal in the corporation’s proxy materials is enormously expensive. The SEC has estimated that it costs a corporation \$87,000 to include a proposal in its proxy materials.”).

459. Petrozziello, *supra* note 452, at 31. Approximately 80% of withdrawals lead to some responsive action by the company. *Id.*

460. For example, in 2022, CMS Energy agreed to expand its net zero GHG emissions goals to include customers and suppliers in exchange for the withdrawal of a shareholder proposal. The same year, Duke Energy shareholders withdrew a proposal in exchange for the company’s agreement to incorporate value-stream emissions in its GHG reduction plan. *Record Number of Negotiated Agreements Between Investors and Companies in 2022 Proxy Season*, CERES (Aug. 1, 2022), <https://www.ceres.org/news-center/press-releases/record-number-negotiated-agreements-between-investors-and-companies-2022> [<https://perma.cc/C9EN-6P43>]. Animal

food companies. For example, at its 2022 annual meeting, 70% of Costco's shareholders voted in favor of a proposal asking the company to set science-based targets to reduce its GHG emissions, including supply chain (Scope 3) emissions; Costco committed to new emissions reduction targets the following year.⁴⁶¹

Particular categories of stakeholders may consider financially grounded actions specific to their contexts. For example, students have filed complaints with state attorneys general under the Uniform Prudent Management of Institutional Funds Act (adopted by every state but Pennsylvania) seeking to hold their universities accountable for the institutions' investments in fossil fuel companies.⁴⁶² New waves of complaints, which under the Act can also be lodged against charitable institutions other than universities, might focus on investments in animal agriculture.

Finally, financiers, such as banks and pension funds, are also being sued around the world in "turn off the taps" cases seeking to interrupt financial support to heavy-emitting sectors and projects.⁴⁶³ A leading example is the 2023 French "duty of vigilance" lawsuit against BNP Paribas and the complaint to the prosecutor that followed, discussed above, which allege that the bank failed to ade-

agriculture companies have faced proposals from animal welfare advocates, some of which have resulted in changes to company policy. Hallaj, *supra* note 456, at 811.

461. Costco Wholesale Corp., Notice of Annual Meeting of Shareholders (Schedule 14A Definitive Proxy Statement), at 28 (Dec. 10, 2021); Press Release, Green Century Funds, Green Century Shareholder Proposal Prompts Costco Commitment to Set New Climate Emissions Reduction Targets (Nov. 16, 2022), <https://www.greencentury.com/release-green-century-shareholder-proposal-prompts-costco-commitment-to-set-new-climate-emissions-reduction-targets> [<https://perma.cc/5A96-UZFE>]; see also Statement, Green Century Funds, Bloomin' Brands Shareholders Vote in Favor of Green Century's Proposal to Address Climate Change (May 20, 2021), <https://www.greencentury.com/statement-bloomin-brands-shareholders-vote-in-favor-of-green-century-proposal-to-address-climate-change> [<https://perma.cc/8C9Z-A7XV>] ("A resounding 76% of [dining company] Bloomin' Brands shareholders supported a proposal...urg[ing] the company to reduce its contribution to climate change, including greenhouse gas emissions from its supply chain.").

462. Dharna Noor, *US Students File Complaints Against Six Universities over Fossil Fuel Investments*, GUARDIAN (Oct. 20, 2023), <https://www.theguardian.com/us-news/2023/oct/30/us-universities-fossil-fuel-investments-students-complaints> [<https://perma.cc/FGA4-JF8N>]; *CDP Files Five University Divestment Complaints*, CLIMATE DEF. PROJECT (Feb. 16, 2022), <https://climatedefenseproject.org/cdp-files-five-university-divestment-complaints> [<https://perma.cc/8DNC-FAQF>]. While lawsuits under these statutes are possible, they are rare, given the high standing threshold that has been applied to them. See Emanuel Miller, *Colorado Court Reaffirms UPMIFA's Standing Requirements*, FAEGRE DRINKER (Apr. 20, 2022), <https://www.faegredrinker.com/en/insights/publications/2022/4/colorado-court-reaffirms-upmifas-standing-requirements> [<https://perma.cc/P94E-SHCT>].

463. SETZER & HIGHAM, *supra* note 70, at 42; BURGER ET AL., *supra* note 5, at 54.

quately consider the climate impacts of its investments when providing financial support to a Brazilian meatpacking company despite the bank's own stated net-zero goals.⁴⁶⁴ The SEC complaint challenging JBS's issuance of "sustainability-linked bonds" also takes aim at the paths by which animal agriculture accesses financing.⁴⁶⁵ As banks face rising pressure from regulatory guidelines,⁴⁶⁶ industry reform efforts,⁴⁶⁷ shareholder proposals, and other campaigns to improve climate risk management and adopt more ambitious ESG policies, litigation to hold banks to their climate promises may grow.

* * *

Animal agriculture is particularly vulnerable to the economic toll of a changing climate. Real-world developments illustrate this peril. At least 2,000 cattle died in southwestern Kansas during a 2022 summer heat wave, generating gruesome reports of carcasses dumped at landfills and others buried in unlined pits, creating health and environmental hazards to surrounding communities.⁴⁶⁸ The summer of 2023 was likewise punishing. The Administrator of the USDA's Farm Service Agency observed in August that "heat domes plaguing many parts of the country" had proven "unsurvivable for some animals," calling this "one of the latest, many examples of how a changing climate is creating immediate challenges for farmers and ranchers."⁴⁶⁹

Around the world, climate litigation relating to the financial risks of fossil fuels is expanding, and there are already preliminary exam-

464. *Supra* notes 151–155 and accompanying text.

465. *Supra* note 264 and accompanying text.

466. Joint News Release, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency, Agencies Issue Principles for Climate-Related Financial Risk Management for Large Financial Institutions (Oct. 24, 2023), <https://www.ots.treas.gov/news-issuances/news-releases/2023/nr-ia-2023-118.html> [<https://perma.cc/48Q7-YP87>] (principles for climate-related financial risk issued for the first time for large financial institutions by the three primary U.S. bank relating agencies).

467. *E.g.*, *Net-Zero Banking Alliance*, U.N. ENV'T PROGRAMME FIN. INITIATIVE, <https://www.unepfi.org/net-zero-banking> [<https://perma.cc/P7XY-QCBF>] (convening banks representing over 40% of global banking assets "which are committed to aligning their lending and investment portfolios with net-zero emissions by 2050").

468. Tom Polansek, *Exclusive: Thousands of U.S. Cattle Buried, Dumped at Kansas Landfill*, REUTERS (July 26, 2022), <https://www.reuters.com/world/us/exclusive-thousands-us-cattle-buried-dumped-kansas-landfill-after-deadly-2022-07-26> [on file with the Journal].

469. U.S. DEP'T AGRIC., FARM SERV. AGENCY, USDA UPDATES LIVESTOCK DISASTER PROGRAM PAYMENT RATE TO ASSIST PRODUCERS HARD-HIT BY HEAT AND HUMIDITY (Aug. 25, 2023), https://www.fsa.usda.gov/state-offices/Nebraska/news-releases/2023/8_25_23_usda-updates-livestock-disaster-payment-rate-to-assist-producers-hard-hit-by-heat-and-humidity?utm_medium=email&utm_source=govdelivery [<https://perma.cc/AD3U-HFH6>].

ples of such claims in relation to animal agriculture. It seems likely that the industry's financial exposure will be the subject of increasing attention from litigants.

D. Public Trust and Claims Against Government

As discussed above, U.S. litigants are already raising climate-related claims about animal agriculture in suits against government defendants, many under the APA and NEPA.⁴⁷⁰ The APA and its state-level analogues allow litigants to bring procedural challenges to administrative agency actions.⁴⁷¹ Nineteen states have NEPA-like environmental review laws,⁴⁷² some of which do not contain the categorical exemption for CAFOs that currently exists under the federal statute.⁴⁷³ All offer critical avenues into court for concerned individuals and organizations and will no doubt continue to play an important role in complaints alleging government failures to grapple with animal agriculture's climate harms.

The public trust doctrine predates these statutory hooks, yet until recently it played only a minor role in climate-related litigation. The doctrine recognizes governments' "sovereign legal obligation" to steward "inherently public" resources (usually natural resources, such as tidal waters).⁴⁷⁴ Scholars have argued—and some courts have agreed—that the doctrine is part of state and federal common law,⁴⁷⁵ though it "is informed by, and enforceable because of, consti-

470. See discussion *supra* Section IV(A)–(B).

471. *State Administrative Procedure Acts*, BALLOTPEDIA, https://ballotpedia.org/State_administrative_procedure_acts#:~:text=Ballotpedia's%20Administrative%20State%20Project%20makes,coverage%20of%20the%20administrative%20state [https://perma.cc/2L6J-UMY4].

472. *States and Local Jurisdictions with NEPA-like Environmental Planning Requirements*, COUNCIL ENV'T QUALITY, <https://ceq.doe.gov/laws-regulations/states.html> [https://perma.cc/5843-4TRF].

473. See *supra* notes 214–218 and accompanying text, and WASH. CODE ANN. § 197-11-800 (1984), which specifically exempts existing grazing leases from SEPA analysis but exempts no other animal agriculture activities. The NEPA-like policies in New Jersey, Virginia, Wisconsin, and South Dakota contain no categorical exemptions. N.J. Executive Order No. 215 (1989); VA. CODE ANN. § 10.1-1188 (1973); WIS. STATS. § 1.11 (1972); S.D. CODIFIED LAWS § 34A-9-1 (1974).

474. Gerald Torres & Nathan Bellinger, *The Public Trust: The Law's DNA*, 4 WAKE FOREST J. L. & POL. 281, 286 (2014).

475. *Id.*; see also, e.g., *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 955 (Pa. 2013) (plurality opinion), *aff'd sub nom.* *Pennsylvania Env't Def. Found. v. Commonwealth*, 640 Pa. 55 (2017); but cf. Joseph L. Sax, *Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 486 (1970) (claiming "there is no general prohibition against [a state's] disposition of trust properties").

tutional provisions.”⁴⁷⁶ Though the breadth of the doctrine is contested⁴⁷⁷ and to date there have been no public trust climate lawsuits filed in U.S. courts relating directly to animal agriculture, its recent use in other climate lawsuits may open that door.

Advocates led by Our Children’s Trust have invoked the public trust doctrine in asking courts to compel the executive and the legislature to adequately respond to climate change, perhaps most notably in *Juliana v. United States*. In that case, the district court defined the public trust doctrine as “impos[ing] . . . a fiduciary duty to ‘protect the trust property against damage or destruction,’” owed “equally to both current and future beneficiaries.”⁴⁷⁸ The Ninth Circuit admitted the strength of the plaintiffs’ claim that “action is needed” to address climate change, but “reluctantly” dismissed for lack of standing, citing a lack of redressability.⁴⁷⁹ The court reached this result in part because of the scale of the mitigatory action necessary to redress the injury of climate change, which the requested relief would only partially ameliorate.⁴⁸⁰ In 2023, the district court granted plaintiff’s motion to file a second amended complaint that would resolve prior “standing deficiencies” and allow the case to move forward to trial.⁴⁸¹

A public trust claim based on a more narrowly tailored injury—such as the failure to protect the public’s interest in public lands by permitting animal agriculture activities to proceed on those lands—might adhere more closely to longstanding precedent than an emphasis on less tangible trust resources (e.g., the atmosphere).⁴⁸² Such claims may be more likely to overcome redressability doubts or

476. Michael Burger et al., *Global Climate Litigation Report: 2020 Status Review*, U.N. ENV’T PROGRAMME 43 (Jan. 26, 2021), <https://www.unep.org/resources/report/global-climate-litigation-report-2020-status-review> [<https://perma.cc/R5Y7-6KBH>]; see also *infra* note 528 and accompanying text (discussing a public trust provision in Pennsylvania’s constitution).

477. See, e.g., *Texas Comm’n on Env’t Quality v. Bonser-Lain*, 438 S.W.3d 887 (Tex. App. 2014) (refusing to review a state environmental agency’s failure to regulate GHG emissions in light of the public trust doctrine absent express waiver of sovereign immunity).

478. *Juliana v. United States*, 217 F. Supp. 3d 1224, 1254 (D. Or. 2016), *rev’d and remanded*, 947 F.3d 1159 (9th Cir. 2020).

479. *Juliana*, 947 F.3d at 1164.

480. *Id.* at 1171.

481. *Juliana v. United States*, 2023 WL 3750334, at *9 (D. Or. June 1, 2023); see also *Juliana v. United States*, 2023 WL 9023339, at *1 (D. Or. Dec. 29, 2023) (denying defendants’ motion to dismiss).

482. See, e.g., *Illinois Cent. R. Co. v. Illinois*, 146 U.S. 387, 463–64 (1892) (invalidating state’s grant of lakefront land to a railroad company as a contravention of public trust).

other procedural hurdles.⁴⁸³ Consider the recent lawsuit alleging that government approval of grazing in the Point Reyes National Seashore would damage public lands and exacerbate local climate change consequences;⁴⁸⁴ one could imagine reformulating those claims, which were brought under the APA, under the public trust doctrine. A similarly tailored public-trust action might focus on the negative climate consequences of cattle grazing on vast swathes of public lands throughout the West.⁴⁸⁵

E. Other Statutory Claims

In addition to the APA, NEPA, and other statutes discussed above,⁴⁸⁶ numerous other federal and state statutes, as well as state constitutional amendments, may help address animal agriculture emissions; firms' representations about those emissions; the harmful effects of the industry's pollution on nearby communities; and the industry's failure to prepare for climate-related disasters. As noted above, this discussion is inclusive and exploratory.

1. Federal Statutes

a. CERCLA/EPCRA

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Emergency Planning and Community Right-to-Know Act (EPCRA) provide private rights of action for individuals in relation to cleanup costs of contaminated spaces and failures by companies or regulators to disclose required information on hazardous releases.⁴⁸⁷ While these statutes allow for lawsuits based on pollution emissions in many other contexts, regulations specifi-

483. Liz Forster, *Branching Out: Protecting State Forests Under the Public Trust Doctrine*, A.B.A. (June 27, 2022), https://www.americanbar.org/groups/environment_energy_resources/publications/trends/2021-2022/july-aug-2022/branching-out [on file with the Journal] ("Given forests' importance to climate change mitigation, compelling their ecologically sound management is critical, and the public trust doctrine can help achieve this objective.").

484. *Supra* notes 222–226 and accompanying text.

485. See Georgina Gustin, *The Bureau of Land Management Lets 1.5 Million Cattle Graze on Federal Land for Almost Nothing, but the Cost to the Climate Could Be High*, INSIDE CLIMATE NEWS (July 25, 2022), <https://insideclimatenews.org/news/25072022/the-bureau-of-land-management-lets-1-5-million-cattle-graze-on-federal-land-for-almost-nothing-but-the-cost-to-the-climate-could-be-high> [<https://perma.cc/YX9M-SXZY>].

486. See discussion *supra* Part IV and Sections V(A)–(C).

487. 42 U.S.C. § 9601; 42 U.S.C. § 11001.

cally exempt air emissions from animal waste.⁴⁸⁸ However, a lawsuit filed by several animal protection groups seeks to have the EPCRA exemption declared unconstitutional.⁴⁸⁹ And in late 2023, EPA issued a request for comments in support of the potential development of new EPCRA regulations for reporting of agricultural animal waste air emissions.⁴⁹⁰

b. Clean Water Act and Resource Conservation and Recovery Act

The CWA explicitly includes “concentrated animal feeding operation” in its definition of a regulated “point source,” subjecting CAFO pollutant discharges to National Pollutant Discharge Elimination System (NPDES) permitting requirements.⁴⁹¹ In practice, limited enforcement and an exemption for agricultural stormwater discharges means that many polluting CAFOs do not have NPDES permits.⁴⁹² Citizen suits challenging such pollution may also invoke climate change, as in *Washington State Dairy Federation*.⁴⁹³

The Resource Conservation and Recovery Act (RCRA) seeks to minimize “the generation of hazardous waste” and ensure any waste that is created is “treated, stored, or disposed of so as to minimize the present and future threat to human health and the environ-

488. See 40 C.F.R. § 355.31(g) (2022).

489. *Challenging Factory Farms’ Exemption from Pollution Reporting Requirements*, ANIMAL LEGAL DEF. FUND (Apr. 6, 2023) <https://aldf.org/case/challenging-factory-farms-exemption-from-pollution-reporting-requirements> [<https://perma.cc/QP2F-NR7S>] (discussing Rural Empowerment); *Assoc. for Cmty. Help v. U.S. Env’t Prot. Agency*, No. 1:18-cv-02260, 2022 WL 444095 (D.D.C. 2022)).

490. Potential Future Regulation for Emergency Release Notification Requirements for Animal Waste Air Emissions Under the Emergency Planning and Community Right-to-Know Act (EPCRA), 88 Fed. Reg. 80222 (published Nov. 17, 2023).

491. 33 U.S.C. § 1362(14).

492. This is an active area, including a recent lawsuit challenging EPA’s denial of petitions to revise its CWA regulations for CAFOs and a forthcoming EPA study. *Petition for Review of an Action by the U.S. Environmental Protection Agency at 2; Food & Water Watch v. U.S. Env’t Prot. Agency*, No. 23-2146 (9th Cir. Sept. 8, 2023); U.S. ENV’T PROT. AGENCY, EFFLUENT GUIDELINES PROGRAM PLAN 15 at 1-1, 6-2-6-3, app. A (Jan. 2023), https://www.epa.gov/system/files/documents/2023-01/11143_ELG%20Plan%2015_508.pdf [<https://perma.cc/GN5Z-G5JR>]. NGOs have pointed to animal agriculture’s climate impacts as one of the many reasons the EPA should change its approach. See, e.g., Ala. State Assoc. of Coops. et al., *Petition to Adopt a Rebuttable Presumption That Large CAFOs Using Wet Manure Management Systems Actually Discharge Pollutants Under the Clean Water Act*, at 29–30 (EPA Oct. 2022), https://earthjustice.org/wp-content/uploads/cafo_presumptionpetition_withexhibits_oct2022.pdf [<https://perma.cc/YT7N-VB3T>].

493. *Supra* notes 249–251 and accompanying text.

ment.”⁴⁹⁴ Historically, many courts did not recognize manure from animal agriculture as a regulated solid waste under RCRA.⁴⁹⁵ However, in 2015, the Eastern District of Washington decided that manure *could* be “characterized as a solid waste.”⁴⁹⁶ The court found that, “[b]y purposefully composting wet manure on open, native soil which causes manure constituents to leach into and accumulate in the soil,” the dairy farm defendants “discarded those constituents as a solid waste under RCRA.”⁴⁹⁷

Litigation for failure to adapt to the impacts of climate change may be possible under the CWA and RCRA. For example, utilizing the citizen-suit provisions of the CWA and RCRA, the Conservation Law Foundation (CLF) filed four suits against fossil fuel defendants for their failure to prepare their bulk storage facilities for rising sea levels and severe storms, to the detriment of the surrounding communities. To date, most of the claims in three of the cases have survived motions to dismiss for lack of standing, the first motion for partial summary judgment filed by a defendant was denied, and CLF was granted leave to amend its complaint in the fourth.⁴⁹⁸ Litigants could pursue a similar case theory against animal agriculture, based, for example, on manure discharges from CAFOs during storms.⁴⁹⁹

c. Endangered Species Act

The ESA provides for citizen suits when agency actions jeopardize the continued existence of species listed as threatened or endangered.⁵⁰⁰ While advocates frequently successfully raise climate

494. 42 U.S.C. § 6902(b) (1976).

495. Reed J. McCalib, *Opening the Gates of Cow Palace: Regulating Runoff Manure as a Hazardous Waste Under RCRA*, 116 MICH. L. REV. 501, 506 (2017).

496. Cmty. Ass’n for Restoration of the Env’t, Inc. v. Cow Palace, LLC, 80 F. Supp. 3d 1180, 1224 (E.D. Wash. 2015).

497. *Id.* at 1224; *see also* Water Keeper All., Inc. v. Smithfield Foods, Inc., 2001 WL 1715730, at *1 (E.D.N.C. Sept. 20, 2001).

498. Conservation L. Found., Inc. v. ExxonMobil Corp., No. 1:16-cv-11950-MLW (D. Mass. Mar. 14, 2019); *Conservation L. Found. v. ExxonMobil Corp.*, CLIMATECASECHART, <http://climatecasechart.com/case/conservation-law-foundation-v-exxonmobil-corp/> [<https://perma.cc/38UB-N9W8>]; Conservation L. Found., Inc. v. Shell Oil Prods. US, No. CV 17-00396 WES-LDA, 2020 WL 5775874, at *1 (D.R.I. Sept. 28, 2020); Conservation L. Found., Inc. v. Shell Oil Co., No. 3:21CV00933, 2022 WL 4292183, at *10 (D. Conn. Sept. 16, 2022); Conservation L. Found. v. Gulf Oil Ltd. P’ship, 2023 WL 4145000 (D. Conn. June 23, 2023).

499. For further discussion of the Conservation Law Foundation cases in relation to potential tort claims, *see supra* notes 361–362 and accompanying text.

500. 16 U.S.C. § 1531(7)(a)(2) (1973).

change as a threat justifying species protections,⁵⁰¹ efforts to use the ESA to force the government to curb GHG emissions have so far been unsuccessful. Consider the polar bear. In 2008, following a lawsuit, the polar bear became the first animal protected under the ESA due to the effects of climate change.⁵⁰² Although the U.S. Fish & Wildlife Service linked GHG emissions to the ice loss threatening the bears, the agency concluded that the ESA was not the appropriate tool with which to seek emissions limits.⁵⁰³

Challenging that conclusion, the Center for Biological Diversity has sued to require federal agencies to consider climate change impacts in their determinations about projects that may impact endangered species.⁵⁰⁴ The suit alleges that the Department of the Interior's authorization of offshore oil and gas activities endangers several aquatic species by contributing to climate change and ocean warming and that the Department's failure to consider climate in its impact analysis makes the drilling authorization unlawful under the ESA.⁵⁰⁵ If successful, this case could open up new avenues to use the ESA to challenge animal agriculture projects that benefit from federal authorization or support. New methods of quantifying the negative consequences of specific GHG emissions sources for particular endangered species may also play a role in "unlocking" the ESA to address those emissions.⁵⁰⁶

501. Jennifer Hijazi, *Climate Change Looms Large in Endangered Species Litigation*, E&E NEWS (July 2, 2019), <https://www.eenews.net/articles/climate-change-looms-large-in-endangered-species-litigation/> [<https://perma.cc/W53C-TQHJ>]; Mackenzie Landa, *Species Protection as a Natural Climate Solution*, in WHAT CAN ANIMAL LAW LEARN FROM ENVIRONMENTAL LAW 431, 445 (Randall S. Abate ed., 2020); *see also, e.g.*, *W. Watersheds Project v. McKay*, No. 22-35706, 2023 WL 7042541, at *2 (9th Cir. Oct. 26, 2023) (remanding to Fish & Wildlife Service for a new biological opinion as required by the ESA, "to consider whether the small frog population could sustain grazing-related impacts on top of potential climate change effects, which, according to documents in the record, include stranding and higher egg mortality due to increased exposure to ultraviolet radiation and pathogens").

502. Landa, *supra* note 501, at 444–45.

503. *Id.* at 447 (citing Press Release, U.S. Dept. of Int., Secretary Kempthorne Proposes Narrow Changes to ESA Consultation Process (Aug. 11, 2008), https://www.doi.gov/sites/default/files/archive/news/archive/08_News_Releases/080811a.html [<https://perma.cc/3EER-NQ4Z>]).

504. Complaint, *Ctr. for Biological Diversity v. Haaland*, No. 2:22-cv-00555 (C.D. Cal. Jan. 26, 2022) [on file with the Journal].

505. *Id.* at 29, 32.

506. Steven C. Amstrup & Cecilia M. Bitz, *Unlock the Endangered Species Act to Address GHG Emissions*, 381 SCIENCE 949, 951 (2023); *see also* Warren Cornwall, *Lawyers Said It Was Impossible to Tie a Specific Dose of Greenhouse Gases to Polar Bear Survival. They Were Wrong*, ANTHROPOCENE (Sept. 6, 2023), <https://www.anthropocenemagazine.org/2023/09/lawyers-said-it-was-impossible-to-tie-a-specific-dose-of-greenhouse-gases-to-polar-bear-survival>.

d. Federal Land Policy & Management Act

A private cause of action is available under the Federal Land Policy and Management Act (FLPMA) of 1976, which charges the Bureau of Land Management (BLM) with “protect[ing] the quality of” public lands.⁵⁰⁷ Environmental organizations have used the FLPMA with some success to challenge the granting of permits on the basis that the BLM has failed to adequately assess environmental impacts.⁵⁰⁸ While to date no climate lawsuits have been filed under the FLPMA, the language of the statute (which refers to the need to provide for “present and future needs”), coupled with Congress’ apparent intent to make the statute a strong tool for environmental protection, has led some commenters to suggest that it could be useful in seeking to address climate change, including by targeting livestock grazing on federal public lands.⁵⁰⁹

e. Racketeer Influenced & Corrupt Organizations Act

The Racketeer Influenced and Corrupt Organizations Act (RICO) provides a federal civil cause of action for illegal acts performed in the service of some enterprise.⁵¹⁰ Though RICO was originally passed to deal primarily with organized crime, the statute has since been applied to defendants ranging from anti-abortion protesters to international sports associations.⁵¹¹ A RICO plaintiff typically must

they-were-wrong/ [https://perma.cc/E2GX-NKH5]; Jessica Wentz, *Climate Attribution and the Willow Project: Federal Obligations to Evaluate the Effects of Fossil Fuel Leasing on Endangered Species*, CLIMATE L.: SABIN CTR. BLOG (Dec. 5, 2023), https://blogs.law.columbia.edu/climatechange/2023/12/05/climate-attribution-and-the-willow-project-federal-obligations-to-evaluate-the-effects-of-fossil-fuel-leasing-on-endangered-species/?mc_cid=965e9acb14&mc_eid=208a528e42 [https://perma.cc/7XG5-UY3U].

507. 43 U.S.C. § 1701(a)(8).

508. See, e.g., *W. Watersheds Project v. Bernhardt*, 392 F. Supp. 3d 1225, 1235 (D. Or. 2019).

509. Marya Torrez, *Cows, Congress, and Climate Change: Authority and Responsibility for Federal Agencies to End Grazing on Public Lands*, 14 VT. J. ENV’T L. 1, 12–13 (2012).

510. 18 U.S.C. §§ 1961–1968. Most states have enacted their own RICO acts. With some variation, these acts mostly follow the form and definitions of the federal RICO statute, utilizing the same definitions of “enterprise” and “pattern of racketeering activity.” Ray V. Harwell III, *Developments in Private Consumer Protection Litigation: The RICO False Advertising Cases*, 60 ANTITRUST L. J. 147, 149 (1991).

511. See *Supreme Court Unanimously Okays Use of RICO to Combat Antiabortion Violence*, WASH. MEMO. ALAN GUTTMACHER INST. (1994) <https://pubmed.ncbi.nlm.nih.gov/12287617/> [https://perma.cc/4V57-833R]; *Nine FIFA Officials and Five Corporate Executives Indicted for Racketeering Conspiracy and Corruption*, U.S. DEP’T JUST. (May 27, 2015),

prove that the defendant engaged in a “pattern of racketeering activity” and invested in, maintained an interest in, or participated in an “enterprise” affecting interstate or foreign commerce.⁵¹² “Racketeering” activities are statutorily defined but their extent is still subject to some debate. Fraud and false advertising claims brought under RICO are increasingly common, often founded on predicate acts of wire or mail fraud.⁵¹³

The first climate case to include RICO claims was filed in the District Court of Puerto Rico in 2022. Plaintiff Puerto Rican municipalities allege that defendant fossil fuel companies knowingly contributed to climate change and hid information linking their products to climate harms.⁵¹⁴ In 2023, the City of Hoboken alleged violations of New Jersey’s state RICO law in its own suit against fossil fuel companies.⁵¹⁵ If evidence were discovered showing a coordinated effort of deception about climate change, then RICO could provide a path forward for lawsuits against animal agriculture firms and their associates on fraud and false advertising grounds.

f. Tariff Act of 1930

The Tariff Act of 1930 prohibits the importation into the United States of any goods made “wholly or in part” using forced labor or indentured servitude.⁵¹⁶ Under the Tariff Act, an individual or or-

<https://www.justice.gov/opa/pr/nine-fifa-officials-and-five-corporate-executives-indicted-racketeering-conspiracy-and> [<https://perma.cc/QPK9-FPSL>].

512. 18 U.S.C. §§ 1961–1968 (1983).

513. Harwell, *supra* note 510, at 147. However, since the early 2000s, judges have been less inclined to entertain civil RICO claims unless they raise a novel or complex issue of law, or if there is further underlying criminal behavior. Pamela B. Pierson, *RICO Trends: From Gangsters to Class Actions*, 65 S.C. L. REV. 213, 221, 246 (2013). After the Supreme Court’s decision in *Hemi v. City of New York*, civil RICO plaintiffs are required to prove that their injuries are directly caused by the RICO violation. 559 U.S. 1 (2010).

514. Complaint for Damages, *Municipalities of Bayamón v. Exxon Mobil Corp.*, No. 3:22-cv-01550, 2023 WL 7412113 (D. P.R. Nov. 22, 2022).

515. Amended Complaint and Jury Demand at 6, *City of Hoboken v. Exxon Mobil Corp.*, No. HUD-L-003179-20 (Super. Ct. N.J. Apr. 21, 2023), https://climatecasechart.com/wp-content/uploads/case-documents/2023/20230421_docket-HUD-L-003179-20_complaint.pdf [<https://perma.cc/798Q-6HM4>]. Hoboken first filed suit in 2020 but was delayed by a removal battle until the Third Circuit affirmed its remand to state court in 2022. *City of Hoboken v. Chevron Corp.*, 45 F.4th 699 (3d Cir. 2022), *cert. denied sub nom. Chevron Corp. v. City of Hoboken*, New Jersey, 143 S. Ct. 2483 (2023).

516. 19 U.S.C. § 1307; Melina De Bona, *The Climate Fight Needs Imagination—Using the Tariff Act of 1930 to Fight Climate Change*, NYU CENTER HUM. RTS. GLOB. JUST. (Aug. 17, 2021), <https://chrgj.org/2021/08/17/the-climate-fight-needs-imagination-using-the-tariff-act-of-1930-to-fight-climate-change/> [<https://perma.cc/JH6Y-XDDT>].

ganization may file a petition with U.S. Customs and Border Protection, which then conducts an investigation to determine whether to prohibit the imports from entering the country.⁵¹⁷ Evidence suggests that parts of the GHG-intensive Brazilian beef industry, for example, depend on forced labor; a Tariff Act petition might seek to limit imports of products linked thereto.⁵¹⁸

g. Freedom of Information Act

FOIA, which creates a broad right to access federal government agency information,⁵¹⁹ has been used extensively in support of climate litigation and advocacy.⁵²⁰ The Act and its state law analogs⁵²¹ have a number of enumerated exemptions, including classified information, trade secrets, and commercial or financial information that is confidential or privileged.⁵²² Documents that are obtained through public records requests—or through litigation to compel disclosures by recalcitrant agencies⁵²³—could prove useful to advocates in challenges to, for example, climate-related agency interactions with the animal agriculture industry.

2. State Statutes and Constitutional Amendments

As discussed above, state consumer protection acts empower individuals, market competitors, government entities, and other organizations to file claims for false advertising and deceptive trade practices.⁵²⁴ Also as noted, many states have statutes similar to the

517. *Forced Labor Process*, U.S. CUSTOMS BORDER PROT., https://www.cbp.gov/sites/default/files/assets/documents/2019-Feb/Forced_Labor_Process_Map_PBRB.pdf [<https://perma.cc/8J4U-HPWS>].

518. Erik Woodward & Joe DelGrande, *The Taint of Slavery in the Brazilian Beef Industry*, NYU CTR. HUM. RTS. GLOB. JUST. (May 24, 2021), <https://chrgj.org/2021/05/24/the-taint-of-slavery-in-the-brazilian-beef-industry> [<https://perma.cc/LJ62-8E6M>].

519. 5 U.S.C. § 552.

520. Sabin Center for Climate Change Law, *Principal Law: Freedom of Information Act*, CLIMATE CASE CHART, <http://climatecasechart.com/principle-law/freedom-of-information-act-foia/> [<https://perma.cc/FBK5-GL49>].

521. *See Open Government Guide*, REPS. COMM. FREEDOM PRESS, <https://www.rcfp.org/open-government-guide/> [<https://perma.cc/RE7S-X52P>] (describing state laws regarding open records and open meetings).

522. 5 U.S.C. § 552(b) (1966).

523. *See supra* note 244 and accompanying text (discussing FOIA lawsuit against FSIS to compel disclosure of documents related to a major beef producer's "climate friendly" marketing).

524. *See discussion supra* Section V(A).

federal APA, FOIA, NEPA, and RICO. Additionally, several states have statutes or constitutional amendments specifically addressing climate, environmental rights, or environmental justice, many of which create private rights of action.⁵²⁵

The earliest wave of “green” constitutional amendments, passed at the height of the environmental movement in the 1970s, created broad legal rights to a healthy environment. More recent amendments establish a fundamental right to a healthy environment and explicitly create private rights of action.⁵²⁶ While green amendments that are not self-executing may only provide a cause of action where the state has failed to fulfill an affirmative duty, self-executing amendments (i.e., those creating a private right of action) allow suits aimed at addressing gaps in state regulation of private parties.⁵²⁷

Green amendments have proved amenable to broad interpretation by state courts. For instance, the Pennsylvania Supreme Court has read its amendment to grant “two separate rights” to state citizens and to impose corresponding constraints and duties on the state government: a “right of citizens to clean air and pure water, and to the preservation of . . . the environment,” and “the common ownership by the people, including future generations, of Pennsylvania’s public natural resources,” held in “public trust” by the Commonwealth.⁵²⁸ The Hawaii Supreme Court has determined that Hawaii’s amendment provides “a protectable property interest in a clean and healthful environment” backed by the state’s constitutional due process guarantee.⁵²⁹ In this vein, a series of suits filed by Our Children’s Trust asks state courts to construe green amendments to address GHG emissions. The first of these cases to reach trial in the United States, *Held v. State of Montana*, was brought under Mon-

525. These laws may also interact helpfully with common law principles such as public trust, discussed *supra* Section V(D). See Alexandra Klass, *The Public Trust Doctrine in the Shadow of State Environmental Rights Laws: A Case Study*, 45 ENV’T L. 431 (2015).

526. Samuel L. Brown, *Green Amendments: A Fundamental Right to a Healthy Environment?*, NAT’L L. REV. (Mar. 30, 2021), <https://www.natlawreview.com/article/green-amendments-fundamental-right-to-healthy-environment> [<https://perma.cc/7HJU-H57U>].

527. *Id.*

528. Pa. Env’t Def. Found. v. Commonwealth, 161 A.3d 911, 930–32, 939 (Pa. 2017) (citing *Robinson Twp. v. Commonwealth*, 83 A.3d 901 (Pa. 2013) (plurality)) (invalidating legislation diverting oil and gas royalties “to a non-trust purpose” as inconsistent with the Commonwealth’s constitutional “role as a trustee”); PENN. CONST. art. I § 27; see also *supra* Section V(D).

529. *In re Maui Elec. Co.*, 141 Haw. 249, 253 (2017); HAW. CONST. art. 11 § 9.

tana's constitutional right to a "clean and healthful environment."⁵³⁰ The trial court issued a judgment in the plaintiffs' favor, affirming the right and invalidating state statutes that had barred consideration of GHG emissions and climate impacts in government decision-making.⁵³¹ Experts have described the thorough decision as "one of the strongest decisions on climate change issued by any court anywhere,"⁵³² noting that "the significance of [green constitutional] amendments is now emerging full force."⁵³³ Though the Montana Supreme Court has agreed to hear the state's appeal, the Court refused to stay the district court's judgment in the interim.⁵³⁴

Several states have broad environmental rights acts that allow municipalities, agencies, and individuals to file suits directly to pro-

530. MONT. CONST. arts. II § 3, IX § 1. The Montana Supreme Court has found that this right is a fundamental right, guaranteeing against the degradation of the environment absent a compelling state interest and creating a private right of action. *Mont. Env't Info. Ctr. v. Dep't of Env't Quality*, 296 Mont. 207, 217 (1999). A similar lawsuit brought by Our Children's Trust in Hawaii survived a motion to dismiss and is awaiting trial. See Complaint at 68, *Navahine F. v. Haw. Dep't Transp.*, No. 1CCV-22-0000631 (Haw. Dist. Ct. June 1, 2022), https://climatecasechart.com/wp-content/uploads/case-documents/2022/20220601_docket-1CCV-22-0000631_complaint.pdf [<https://perma.cc/2ZFX-XV56>].

531. Findings of Fact, Conclusions of Law, and Order, *Held v. State*, No. CDV-2020-307, at 102 (Mont. Dist. Ct. Aug. 14, 2023). As *Held* moved toward trial, Montana passed a new version of its law barring consideration of "greenhouse gas emissions and corresponding impacts to the climate" in the conduct of environmental impact statements under the Montana Environmental Policy Act, apparently in an effort to render moot plaintiffs' claims pertaining to the previous version of the statute. MONT. CODE ANN. § 75-1-201(2); Kristoffer Tighe, *Montana's New Anti-Climate Law May Be the Most Aggressive in the Nation*, INSIDE CLIMATE NEWS (May 16, 2023), <https://insideclimatenews.org/news/16052023/todays-climate-montana-anti-climate-law> [<https://perma.cc/8YAJ-PRTK>]. This 2023 MEPA limitation was among the state statutes "declared unconstitutional" and "permanently enjoined" in *Held*. *Held*, No. CDV-2020-307, at 102.

532. Nathan Rott & Seyma Bayram, *Montana Youth Climate Ruling Could Set Precedent for Future Climate Litigation*, NPR (Aug. 23, 2023), <https://www.npr.org/2023/08/23/1194710955/montana-youth-climate-ruling-could-set-precedent-for-future-climate-litigation> [<https://perma.cc/76WV-LELT>] (quoting Professor Michael Gerrard, director of Columbia Law School's Sabin Center for Climate Change Law); see also David Gelles & Mike Baker, *Judge Rules in Favor of Montana Youths in a Landmark Climate Case*, N.Y. TIMES (Aug. 16, 2023), <https://www.nytimes.com/2023/08/14/us/montana-youth-climate-ruling.html> [on file with the Journal] (quoting executive director of the Sabin Center Michael Burger's view that "[t]his was climate science on trial, and what the court has found as a matter of fact is that the science is right").

533. Zoe Loftus-Farren, *A Fundamental Right: Green Amendments Could Be a Game Changer for Climate Litigation*, EARTH ISLAND J. (Autumn 2023), <https://www.earthisland.org/journal/index.php/magazine/entry/montana-youth-climate-case-win-power-of-constitutional-amendments> [<https://perma.cc/5H6Z-L4LY>] (quoting Professor Gerrard of Columbia Law School).

534. Order, *Held v. Montana*, Case No. DA 23-0575 (Mont. Jan. 16, 2024).

tect the environment.⁵³⁵ For example, *Rhode Island v. Shell Oil Co.*, one of the “Carbon Majors” cases, involved a violation of the state environmental rights act alongside common law liability theories.⁵³⁶ Other states have enacted additional environmental review requirements for projects with environmental justice implications. California,⁵³⁷ Connecticut,⁵³⁸ Massachusetts,⁵³⁹ New Jersey,⁵⁴⁰ New York,⁵⁴¹ Vermont,⁵⁴² and Washington⁵⁴³ have recently adopted or amended statutes requiring agencies to consider environmental justice impacts when making permitting or other decisions.⁵⁴⁴ These laws create opportunities to challenge state regulatory decisions that threaten to harm underserved communities disproportionately burdened with pollution and climate impacts.⁵⁴⁵

New York is an important state to watch because of significant recent policy changes and the potential for dynamic interplay among

535. See Minnesota Environmental Rights Act, M. S. A. § 116B.01–13; R.I. GEN. LAWS § 10-20-3.

536. Complaint at 138–40, *Rhode Island v. Shell Oil Co.*, No. PC-2018-4716 (R.I Sup. Ct. July 2, 2018).

537. CAL. GOV’T CODE § 65302(h) (West 2023).

538. CONN. GEN. STAT. § 22a-20a (2023).

539. *Governor Baker Signs Climate Legislation to Reduce Greenhouse Gas Emissions, Protect Environmental Justice Communities*, MASS. STATE GOV’T (Mar. 26, 2021), <https://archives.lib.state.ma.us/server/api/core/bitstreams/dd5470b5-613b-4844-b075-0fa84fc5560a/content> [on file with the Journal]. The act also sets climate targets, including a 50 percent reduction in GHG emissions by 2030 and a 75 percent reduction by 2040. *Id.* But federal court decisions may have weakened Massachusetts’ law. In *Town of Weymouth v. Massachusetts Department of Environmental Protection*, the First Circuit declined to force the Department of Environmental Protection to consider environmental justice concerns in a permitting process for a natural gas compression facility, even though the proposed site was within five miles of several environmental justice communities. 961 F.3d 34, 54 (1st Cir. 2020). In 2021, notwithstanding the law’s passage, the First Circuit cited *Town of Weymouth* in dismissing another environmental justice suit. *City of Quincy v. Mass. Dep’t of Env’t Prot.*, 21 F.4th 8, 19 (1st Cir. 2021).

540. *NJ Environmental Justice Law Rules*, N.J. DEP’T ENV’T PROT. (June 15, 2022), <https://www.nj.gov/dep/ej/policy.html#ejlaw> [<https://perma.cc/U8NR-6TRU>].

541. N.Y. ENV’T CONSERV. LAW § 70-0118 (Consol. 2024).

542. VT. STAT. ANN. tit. 3, § 6004 (2022).

543. WASH. REV. CODE § 70A.02.080 (2023).

544. Virginia has also recently enacted an environmental justice act providing that it is the state’s policy “to promote environmental justice and ensure that it is carried out throughout the Commonwealth.” VA. CODE ANN. § 2.2-235 (2020). The act recently played a role in a major permit denial. Patrick Larsen, *Key Mountain Valley Pipeline Structure Fails to Get Permit Approval*, VPM NPR NEWS (Dec. 3, 2021), <https://www.vpm.org/news/2021-12-03/key-mountain-valley-pipeline-structure-fails-to-get-permit-approval> [<https://perma.cc/9ARW-22CT>].

545. See, e.g., Wendee Nicole, *CAFOs and Environmental Justice: The Case of North Carolina*, 121 ENV’T HEALTH PERSPS. A182 (2013); David B. Resnik, *Environmental Justice and Climate Change Policies*, 36 BIOETHICS 735 (2022).

its statutes. A new constitutional amendment took effect in 2022, providing that “[e]ach person shall have a right to clean air and water, and a healthful environment.”⁵⁴⁶ Commentators have predicted that the amendment will be interpreted as self-executing.⁵⁴⁷ The state also recently passed arguably the nation’s “strongest” environmental justice law,⁵⁴⁸ and adopted the Climate Leadership and Community Protection Act (CLCPA), which requires the state to target a 40 percent reduction of economy-wide GHG emissions from 1990 levels by 2030, followed by an 85 percent reduction by 2050.⁵⁴⁹ CLCPA has already triggered permit denials for major fossil fuel projects,⁵⁵⁰ and although it exempts emissions “from livestock” from its coverage, it does not appear either to exempt other types of agricultural emissions or to limit any pre-existing regulatory authority over enteric methane.⁵⁵¹ Together with the state’s new green amendment, these policies offer fertile soil for potential lawsuits with multiple interacting causes of action.⁵⁵²

F. Cross-Border Theories

Potential claims in U.S. courts relating to animal agriculture’s climate responsibility will also be informed by both economic and reg-

546. N.Y. CONST. art. 1 § 19.

547. NICHOLAS A. ROBINSON, NYS BAR ASSOCIATION ANNUAL MEETING LECTURE OUTLINE: THE NEW ENVIRONMENTAL RIGHTS IN NY’S CONSTITUTIONAL BILL OF RIGHTS 14 (2022), <https://digitalcommons.pace.edu/cgi/viewcontent.cgi?article=2203&context=lawfaculty> [on file with the Journal]; N.Y. State Bar Ass’n Env’t & Energy L. Section, *Report and Recommendations Concerning Environmental Aspects of the New York State Constitution*, 38 PACE L. REV. 182, 191 (2017).

548. Michael B. Gerrard & Edward McTiernan, *New York Adopts Nation’s Strongest Environmental Justice Law*, N.Y.L.J. (May 10, 2023). The statute, which takes effect in December 2024, provides that the Department of Environmental Conservation shall not issue renewals of certain permits “if it determines that the project would significantly increase the existing disproportionate pollution burden on the disadvantaged community.” N.Y. ENV’T CONSERVATION LAW § 70-0118.

549. New York State Climate Leadership and Community Protection Act, 2019 N.Y. LAWS 106.

550. *See, e.g.*, Notice of Denial of Title V Air Permit, No. 8-5736-00004/00017, N.Y. Dep’t Env’t Conservation 1–2 (June 30, 2022), https://www.dec.ny.gov/docs/administration_pdf/greenidgefinal630.pdf [<https://perma.cc/ET4L-WZNJ>] (finding the renewal of an air permit for a natural gas-fired electric generating facility inconsistent with CLCPA emission limits).

551. 2019 N.Y. LAWS 106.

552. *E.g.*, Kristoffer Tigue, *New York’s Right to ‘a Healthful Environment’ Could Be Bad News for Fossil Fuel Interests*, INSIDE CLIMATE NEWS (Nov. 23, 2021), <https://insideclimatenews.org/news/23112021/new-york-right-to-healthful-environment-fossil-fuel> [<https://perma.cc/PV7V-AL6Q>].

ulatory globalization.⁵⁵³ This is particularly so because of the multinational nature and cross-border ownership of several of the largest players. For example, Brazil-based JBS S.A. and Marfrig control two of the “big four” U.S. meatpacking giants (JBS USA and National Beef Packing, respectively),⁵⁵⁴ and China-based WH Group owns Smithfield Foods, the top U.S. pork producer.⁵⁵⁵

Heightened regulation in foreign jurisdictions can create new avenues of information access and potential cross-border claims in U.S. courts. In keeping with the “Brussels effect,”⁵⁵⁶ EU proposals and advancements relating to climate reporting,⁵⁵⁷ supply-chain due diligence,⁵⁵⁸ nature restoration and biodiversity,⁵⁵⁹ and greenwashing⁵⁶⁰ will undoubtedly affect many U.S. companies. For example,

553. See, e.g., Jeff Rosenthal et al., *Climate Change Litigation: Corporates at Risk*, CLEARY GOTTLEB, <https://content.clearygottlieb.com/regulatory/climate-change-litigation-corporates-at-risk/index.html> [<https://perma.cc/R3W-UUFL>] (last visited Mar. 20, 2024) (“The EU side and U.S. side of climate litigation are very much intertwined . . . and far less distant than they look. The large, multinational defendants that tend to be on the receiving end of these claims will have operations across the globe, and will depend on worldwide supply chains.”).

554. Tom Polansek, *Explainer: How Four Big Companies Control the U.S. Beef Industry*, REUTERS (June 17, 2021), <https://www.reuters.com/business/how-four-big-companies-control-us-beef-industry-2021-06-17/> [on file with the Journal]; *Foreign Ownership*, FOOD & POWER, <https://www.foodandpower.net/foreign-ownership> [<https://perma.cc/7GAG-C2BW>]; Kimberly Kindy, *This Foreign Meat Company Got U.S. Tax Money. Now It Wants to Conquer America*, WASH. POST (Nov. 7, 2019), https://www.washingtonpost.com/politics/this-foreign-meat-company-got-us-tax-money-now-it-wants-to-conquer-america/2019/11/04/854836ae-eae5-11e9-9306-47cb0324fd44_story.html [<https://perma.cc/7NZC-VA4J>].

555. *Top U.S. Pork Powerhouses 2022 Rankings*, SUCCESSFUL FARMING (May 16, 2023), <https://static.onecms.io/wp-content/uploads/pdfs/sites/58/2023/06/16/29771-Pork-Powerhouse-2022-Rankings.pdf> [<https://perma.cc/UQ8K-PH75>]; *Foreign Ownership*, *supra* note 554.

556. Anu Bradford, *The Brussels Effect*, 107 NW. U. L. REV. 1 (2012).

557. Corporate Sustainability Reporting Directive, Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 Amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as Regards Corporate Sustainability Reporting, 2022 O.J. (L 322/15) [hereinafter CSRD Directive].

558. See *supra* notes 137–142 and accompanying text.

559. See European Parliament Legislative Resolution of 27 February 2024 on the Proposal for a Regulation of the European Parliament and of the Council on Nature Restoration (COM (2022) 0304 – C9-0208/2022 – 2022/0195 (COD)), https://www.europarl.europa.eu/doceo/document/TA-9-2024-0089_EN.html [<https://perma.cc/9XTJ-BQCZ>]. This regulation was narrowed, and a related pesticides regulation was withdrawn entirely, “after farmers’ protests ignited a backlash.” Kate Abnett, *EU Parliament Passes Nature Law Despite Political Backlash*, REUTERS (Feb. 27, 2024), <https://www.reuters.com/world/europe/eu-parliament-passes-nature-law-despite-political-backlash-2024-02-27> [on file with the Journal].

560. Directive (EU) 2024/825 of the European Parliament and of the Council of 28 February 2024 Amending Directives 2005/29/EC and 2011/83/EU as Regards Empowering Consumers for the Green Transition Through Better Protection Against Unfair Practices and Through Better Information, 2024 O.J. (L); Proposal for a Directive of the European Parliament

the Corporate Sustainability Reporting Directive (CSRD), an EU ESG disclosure requirement that came into force in January 2023 and must be implemented in EU national laws by mid-2024, will reach more than 10,000 non-EU companies—about a third of which are based in the United States.⁵⁶¹ The CSRD requires GHG emissions disclosures (including of Scope 3 emissions) and reduction plans aligned with the Paris Agreement.⁵⁶² Even U.S. companies that are not themselves covered by the CSRD may be required by their trading partners to disclose relevant information if they are in the supply chains of covered EU companies.⁵⁶³

Many firms may soon be subject to similar climate disclosure rules directly under U.S. law. California's 2023 rule will require Scope 3 disclosures and has broad sectoral reach: it applies to both public and private companies with global revenues of at least \$1 billion that meet a minimal trigger of "doing business in California."⁵⁶⁴ The SEC proposed a similarly robust ESG disclosure regulation in 2022.⁵⁶⁵ However, in its final form, adopted in March 2024, the SEC rule does

and of the Council on Substantiation and Communication of Explicit Environmental Claims (Green Claims Directive), COM (2023) 166 final (Mar. 22, 2023).

561. Dieter Holger, *At Least 10,000 Foreign Companies to Be Hit by EU Sustainability Rules*, WALL ST. J. (Apr. 5, 2023), <https://www.wsj.com/articles/at-least-10-000-foreign-companies-to-be-hit-by-eu-sustainability-rules-307a1406> [on file with the Journal]. U.S. companies within the CSRD's expanding ambit currently include those with listed securities on EU regulated markets; annual EU revenues of more than €150 million and an EU branch with net revenue of more than €40 million; or an EU subsidiary that meets the criteria for a "large company." *Id.*

562. CSRD Directive, *supra* note 557, arts. 19a.2(a)(iii), 29b.2(a)(1). Most of the animal agriculture industry's emissions are upstream, Scope 3 emissions. *See EMISSIONS IMPOSSIBLE MEAT AND DAIRY*, *supra* note 24, at 5.

563. Jon McGowan, *How European Union ESG Rules Will Affect American Companies*, FORBES (Apr. 11, 2023), <https://www.forbes.com/sites/jonmcgowan/2023/04/11/how-eu-esg-reporting-will-impact-us-companies/?sh=125e29eb7d1f> [<https://perma.cc/9QTH-U3UZ>] (noting that "[c]ontracts with EU companies will soon incorporate new language addressing compliance").

564. Climate Corporate Data Accountability Act, 2023 Cal. Legis. Serv. Ch. 382 (West) (requiring disclosure of scope 1, 2, and 3 emissions); *see also* S.B. 261, 2023 Cal. Legis. Serv. Ch. 383 (West) (requiring disclosure of climate-related financial risks); David Smith, *Why All Cos. Should Take Note of Calif. GHG Disclosure Laws*, LAW360 (Oct. 10, 2023), <https://www.law360.com/articles/1729666/why-all-cos-should-take-note-of-calif-ghg-disclosure-laws> [on file with the Journal] (noting that smaller companies in the covered companies' supply chains may be required by their trading partners to supply their own disclosure information).

565. The Enhancement and Standardization of Climate-Related Disclosures for Investors, 87 Fed. Reg. 21334 (proposed Apr. 11, 2022).

not include Scope 3 disclosure requirements.⁵⁶⁶ The SEC noted in its final rule that “[c]ommenters in the agricultural sector were particularly opposed” to defining disclosure-triggering “climate-related risks” to include “the negative impacts on a registrant’s value chain . . . because it would impose costs and burdens on farmer and rancher suppliers.”⁵⁶⁷ Prominent political leaders amplified those objections.⁵⁶⁸

Even in its narrowed form, the SEC rule faces headwinds, likely from disappointed regulatory *beneficiaries* as well as from regulated parties and even states.⁵⁶⁹ Likewise, industry plaintiffs, including the American Farm Bureau Federation, have already brought a challenge to the California rule on First Amendment, Supremacy Clause, and dormant Commerce Clause grounds.⁵⁷⁰ Any disclosure requirements that survive such challenges will deliver more information to potential litigants about animal agriculture companies and their emissions, climate plans, and commitments. As broad due-diligence obligations gain ground, new information about other harms endemic in multinational animal agriculture supply chains, such as the deforestation

566. Final Rule, *The Enhancement and Standardization of Climate-Related Disclosures for Investors*, RIN 3235-AM87 (Mar. 6, 2024) (to be codified at 17 C.F.R. pts. 210, 229, 230, 232, 239, and 249).

567. *Id.* at 87; see also Nat’l Cattlemen’s Beef Assoc. et al., Comments by Agricultural Associations on SEC’s Proposed Rules on the Enhancement and Standardization of Climate-Related Disclosures for Investors (File No. S7-10-22) (June 17, 2022), <https://www.sec.gov/comments/s7-10-22/s71022-20132091-302573.pdf> [on file with the Journal]; Morris & Jacquet, *supra* note 61, at 23.

568. See, e.g., Letter from Jon Tester, U.S. Senator, and Kyrsten Sinema, U.S. Senator, to The Honorable Gary Gensler, Chairman, U.S. Securities and Exchange Commission (Jan. 24, 2024), <https://www.sec.gov/comments/s7-10-22/s71022-415340-983822.pdf> [on file with the Journal] (“[W]e respectfully ask that you work to ensure that any final rule does not create new regulatory burdens for family farmers and ranchers. We are particularly concerned that, as written, the proposed rule’s Scope 3 emissions reporting requirements could indirectly penalize small agriculture producers . . .”).

569. Stefania Palma, Aime Williams, & Patrick Temple-West, ‘Sued on Both Sides’: SEC Braces for Lawsuits from Supporters and Critics of Climate Rule., FIN. TIMES (Mar. 7, 2024), <https://www.ft.com/content/f1c5062e-9665-4258-9f4d-dd32ff8a9535> [on file with the Journal]; Sarah Jarvis, 8th Circ. Wins SEC Climate Rule Litigation Lottery, LAW360 (Mar. 21, 2024), <https://www.law360.com/articles/1816307> [on file with the Journal] (reporting that cases challenging the rule will be consolidated and heard by the Eighth Circuit).

570. See Complaint for Declaratory and Injunctive Relief at 3, Chamber of Commerce v. California Air Resources Board, No. 2:24-cv-00801 (C.D. Cal. Jan. 30, 2024). The complaint discusses at some length the alleged effect of the “burden of estimating Scope 3 emissions” on named cattle-rancher plaintiffs. *Id.* at 15–16.

and human-rights abuses illuminated in the *Casino* and *BNP Paribas* cases,⁵⁷¹ may also emerge.⁵⁷²

Multilateral institutions may provide fora in which to raise non-litigation challenges to the industry's emissions, as evidenced by the IACHR and OECD complaints discussed above.⁵⁷³ Lastly, as litigation relating to animal agriculture's climate responsibility moves forward in other countries, litigants in those foreign court proceedings may utilize 28 U.S.C. § 1782 to obtain relevant evidence from U.S. persons or companies.⁵⁷⁴

VI. CONCLUSION

Despite mounting enthusiasm for ambitious litigation as an essential tool in the fight against climate change, no lawsuits in the United States, and only a few worldwide, have explicitly sought to hold animal agriculture companies responsible for their GHG emissions. Yet such suits hold real promise. Notwithstanding some judicial reluctance to expand common-law liability to cover climate change harms, early indications from several pending suits suggest that this strategy has potential. Additional litigation activity grounded in consumer protection theories and climate-related financial risk also seems likely. Meanwhile, lawsuits in both foreign and U.S. courts have targeted government support for the production of meat and dairy—and, by extension, government complicity in the associated emissions. U.S. plaintiffs regularly invoke procedural and environmental statutes to oppose adverse administrative actions related to climate change and animal agriculture, with some success (especially at the state and local levels). Non-judicial grievance mechanisms offer further paths by which to increase awareness and shape public discourse in favor of constraints on animal agriculture's GHG emissions.

Building on these foundations, this Article has sought to chart potential U.S. legal strategies that litigants focused on the climate

571. *Supra* notes 143–155 and accompanying text.

572. SETZER & HIGHAM, *supra* note 70, at 44 (predicting that such topics are “likely to be the subject of an increasing volume of litigation in coming years”).

573. *See supra* Section III(E). The OECD Guidelines for Multinational Companies were updated in 2023 to strengthen information accuracy and transparency standards. *Update of the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct*, OECD (2023), <https://mneguidelines.oecd.org/targeted-update-of-the-oecd-guidelines-for-multinational-enterprises.htm> [<https://perma.cc/379X-Q7H5>].

574. 28 U.S.C. § 1782.

harms of animal agriculture might embrace. Of course, litigation is an imperfect tool for addressing climate change, which in any case is just one of many externalized harms of industrialized animal agriculture. Nevertheless, there are compelling reasons to believe advocates might choose to dedicate some of their inevitably limited resources to the types of lawsuits discussed herein.

Perhaps most fundamentally, time is short. According to a 2023 U.N. report, to meet climate goals and avoid the worst effects of climate change, emissions must be cut nearly in half by 2030—now less than six years away. But the report paints a grim picture of progress to date: “[w]ith a climate cataclysm looming, the pace and scale of current climate action plans are wholly insufficient to effectively tackle climate change.”⁵⁷⁵ Even dramatic decarbonization is likely to prove inadequate without simultaneous action to curb climate super-pollutants like methane and nitrous oxide, both of which animal agriculture produces in significant quantities. Well-founded litigation might be uniquely positioned to facilitate such action—which likely must include reduced production and consumption of animal products—where gridlocked political processes have failed.

Litigation aimed at animal agriculture’s climate harms will not take place in a vacuum. Advocates for a more secure, sustainable, and humane food system may seek to build new coalitions based on the near-universal resonance of the climate crisis. Doing so responsibly and successfully will require paying genuine attention to other, non-climate harms. The interests of local communities, public health, animals, and the environment may inform, for example, the minimum acceptable terms of a negotiated settlement or the particular remedies sought in a lawsuit.

Litigation efforts that engage with existing social movements may dramatically reshape public discourse. In addition to empowering consumers to act with the benefit of information long obscured by the industry, greater public awareness could enable the voting public to persuade political leaders to address the profound lack of effective regulation of animal agriculture’s GHG emissions.

As climate change intensifies, public understanding grows, and this critical decade for climate action ticks on, climate litigation aimed at reducing animal agriculture emissions is poised to expand.

575. UNITED NATIONS, THE SUSTAINABLE DEVELOPMENT GOALS REPORT 38 (2023), <https://unstats.un.org/sdgs/report/2023/The-Sustainable-Development-Goals-Report-2023.pdf> [https://perma.cc/5ER5-7C5M].

This Article has offered an expansive exploration of such litigation's potential in U.S. courts. Though U.S. courts will be more amenable to some theories than others, advocates may adopt an all-of-the-above approach. If legislators and executive agencies continue to fail to regulate animal agriculture emissions to any meaningful extent—let alone in a manner commensurate with global emission-reduction goals—effective climate governance may fall to these litigants and the courts before which they bring their claims.