COMMENT

Fixing a Broken System That Promotes Climate Change and Depletion of Global Fisheries: WTO Subsidy Reform Is Just the Tip of the (Melting) Iceberg

by Sharon Anglin Treat

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I. Introduction

Our planet is hurtling toward dramatic and devastating impacts from climate change caused in large part by our reliance on fossil fuels. Meanwhile, liberalized trading rules have promoted a global economy heavily reliant on trade, which itself increases greenhouse gas (GHG) emissions. The climate impact of trade is manifested directly through reliance on global supply chains and as food and finished goods are shipped halfway around the world to consumers; and indirectly as trade rules are used to attack domestic policies that support fossil fuel alternatives while giving a free pass to subsidies that increase GHG emissions.1 One consequence well underway is ocean warming and acidification leading to significant declines in fish stocks that are already threatened by overfishing.² There is also a direct link between fisheries subsidies and GHG emissions: by one estimate, 22 percent of these subsidies go to the purchase of fuel for fishing vessels and to lower the costs of fuel-dependent ships.3 With recent comprehensive United Nations assessments⁴ and U.S. government data⁵ concluding that destructive climate changes are well advanced, it is clear we must effectively tackle trade-related contributions to GHG emissions before it is too late.

Prof. Timothy Meyer of Vanderbilt University Law School has contributed to our knowledge about the relationship between trade policy and both climate change and fishing sustainability in his article, "Free Trade, Fair Trade, and Selective Enforcement" by providing a comprehensive inventory of World Trade Organization-related subsidy challenges and investigations related to energy, fishing, and aquaculture and exploring the social costs of these challenges. Meyer argues that the selective enforcement of WTO subsidy prohibitions against renewable energy and aquaculture, but not against fossil fuel and wild fishing, distort trade markets to the detriment of the environment, by promoting environmentally unsustainable practices and slowing development of competitive more environmentally-friendly products. He offers as a solution centralized WTO investigation and enforcement authority to insure even-handed treatment of environmental products.

II. Governments Acknowledge the Subsidy Problem

For the past decade, governments across the globe have made a series of pledges to reform and phase out fossil fuel subsidies. In 2009, the G20 governments committed to "rationalize and phase out over the medium term inefficient fossil-fuel subsidies that encourage wasteful consumption" and Asia-Pacific Economic Cooperation (APEC) countries and others soon followed suit with similar pledges.8 In 2016, the G7 countries, accounting for 64 percent of the total fiscal support directed towards fossil fuel use,

See generally Report of the Working Group on Trade, Investment, and Climate Policy, Trade in the Balance: Reconciling Trade and Climate Policy (2016), https://www.bu.edu/pardee/files/2016/11/Pardee_TradeClimate_110316final.pdf(hereinafter Trade in the Balance).

See Kendra Pierre-Louis, The World Is Losing Fish to Eat as Oceans Warm, Study Finds, N.Y. Times (Feb. 28, 2019), https://www.nytimes.com/2019/02/28/ climate/fish-climate-change.html.

Markus Gehring, From Fisheries Subsidies to Energy Reform Under International Trade Law, CIGI Papers No. 188, at 4 (2018), https://www.cigionline.org/sites/default/files/documents/Paper%20no.188web.pdf.

See Coral Davenport, Major Climate Report Describes a Strong Risk of Crisis as Early as 2040, N.Y. Times (Oct. 7, 2018), https://www.nytimes.com/2018/10/07/climate/ipcc-climate-report-2040.html; see also United Nations Environment Report, Global Environment Outlook 6 (Mar. 4, 2019), https://www.unenvironment.org/resources/global-environment-outlook-6.

See David Malakoff, Climate Change Poses Major Threat to United States, New Government Report Concludes, SCIENCE (Nov. 23, 2018), https://www.sciencemag.org/news/2018/11/climate-change-poses-major-threat-us-new-government-report-concludes.

Timothy Meyer, Free Trade, Fair Trade, and Selective Enforcement, 118
 COLUM. L. REV. 2, 491 (2018), https://columbialawreview.org/wp-content/uploads/2018/03/Meyer-Free-Trade-Fair-Trade-and-Selective-Enforcement.pdf.

Leaders' Statement, The Pittsburgh Summit, Treasury, at ¶ 24 (Sept. 24-25, 2009), http://www.treasury.gov/resource-center/international/g7-g20/Documents/pittsburgh_summit_leaders_statement_250909.pdf.

See Mark Halle, Opinion, Phase Out Fossil-Fuel Subsidies, The Broker (Oct. 6, 2010), http://www.thebrokeronline.eu/Articles/Phase-out-fossil-fuel-subsidies.

agreed to phase out fossil fuel subsidies by the year 2025.9 As Meyer has documented, these commitments haven't translated into even one fossil fuel subsidy challenge under the WTO's Agreement on Subsidies and Countervailing Measures (SCM). Nor have these commitments resulted in actual reductions in subsidies. In fact, each of the G7 countries committing to phase out fossil fuel subsidies provided new public financing for oil and gas exploration following the 2016 signing of the Paris Climate Agreement.¹⁰

The picture is similar with respect to fishing subsidies. A non-binding United Nations Sustainable Development Goal (SDG) signed by 193 nations set 2020 for an end to subsidies that "contribute to overcapacity and overfishing, or to illegal, unreported and unregulated fishing." In 2017, WTO members committed "to continue to engage constructively in the fisheries subsidies negotiations" and to agree on "comprehensive and effective disciplines" by the 2019 ministerial. The ministerial has been postponed to 2020, but reaching agreement by even the extended deadline remains unlikely. Needless to say, as Meyer details, the global willingness to discuss the pernicious consequences of fishing subsidies hasn't led to a single challenge under the SCM agreement.

Meyer estimates combined annual fossil fuel consumption and production subsidies at 934 billion USD in 2014, seven times the amount spent on renewables' subsidies. On the fisheries side, Meyer cites a European Parliament estimate of \$35 billion spent annually on subsidies as of 2009, but doesn't quantify the level of aquaculture-related subsidies. Meyer effectively makes the case for eliminating these environmentally harmful fossil fuel and wild fisheries subsidies. The other prong of his argument, however—that renewable energy and aquaculture promote environmentally sustainable practices that are inhibited by subsidy challenges and domestic trade investigations—oversimplifies the bad-subsidy, good-subsidy comparison.

III. Industrial-Scale Biofuel Production and Aquaculture Are Part of the Problem

Meyer makes a mistake in defining "biofuels" and "biodiesel" as renewable and stating that they "emit fewer greenhouse gasses than fossil fuels." As the scale of biofuel production has increased, displacing food crops and

clearing forests, more attention is being paid to the negative environmental impacts, including GHG emissions. As a World Resources Institute paper puts it, "bioenergy that entails the dedicated use of land to grow the energy feedstock will undercut efforts to combat climate change and to achieve a sustainable food future."16 Also, carbon modeling for biofuels has been based on incorrect assumptions that underestimate the amount of carbon dioxide released when burned.¹⁷ The WRI paper recommends phasing out all subsidies for biofuels and their production.¹⁸ A landmark European Commission study quantifying GHG impacts of biofuels found palm and soy oil, both in common and rapidly expanding use, to be particularly destructive: biodiesel from palm oil is three times worse for the climate than regular diesel while soy oil diesel is two times worse.¹⁹ On March 13, 2019, the Commission issued a regulation implementing its decision that because of deforestation impacts, beginning in 2023, biodiesel produced from palm oil may not be counted towards meeting EU green fuel targets,²⁰ with the rule to be fully phased in by 2030.²¹

Meyer also glosses over the environmental impacts of aquaculture in comparing the selective enforcement of WTO subsidy rules against aquaculture, but not wild fisheries. While environmentally sustainable aquaculture is possible, for example small-scale bivalve operations, 22 much of today's aquaculture is industrial in scale and environmentally destructive. Salmon and other fish farmed in large concentrations in open ocean pens are dosed with high levels of antibiotics and pesticides, 23 and further

Han Chen, G7 Fossil Fuel Subsidy Scorecard, Natural Resources Defense Council (June 3, 2018), https://www.nrdc.org/resources/g7-fossil-fuel-subsidy-scorecard. This includes significant support to fossil fuel use in transport (\$26 billion), industry (\$9 billion), households (\$11 billion), and in other sectors (\$5 billion), and support to fossil fuel exploration, production and fossil fuel-based power in 57 countries (including other G7 countries).

United Nations, Goal 14: Conserve and Sustainably Use the Oceans, Seas and Marine Resources for Sustainable Development, https://oceanconference. un.org/sdg14 (last visited, June 10, 2019).

^{12.} Peter Thomson, 2019: The Year to End Harmful Fisheries Subsidies, SDG Knowledge Hub (Jan. 8, 2019), https://sdg.iisd.org/commentary/guest-articles/2019-the-year-to-end-harmful-fisheries-subsidies/.

^{13.} Meyer, supra note 6.

^{14.} *Id*

^{15.} Id. at 515 n.131.

^{16.} Tim Searchinger & Ralph Heimlich, Installment 9 of "Creating a Sustainable Food Future": Avoiding Bioenergy Competition for Food Crops and Land, World Resources Institute, at 1 (2015), https://www.wri.org/publication/avoiding-bioenergy-competition-food-crops-and-land. The growth of the biofuel industry also poses a number of challenges to water quantity and quality around the world, see e.g., Shiney Varghese, Biofuels and Global Water Challenges, Institute for Agriculture and Trade Policy (2007), https://www.iatp.org/sites/default/files/451_2_100547.pdf.

^{17.} Searchinger & Heimlich, supra note 16, at 4, 17.

^{18.} *Id*. at 26

^{19.} Hugo Valin et al., *The Land Use Change Impact of Biofuels Consumed in the EU:Quantification of Area and Greenhouse Gas Impacts*, European Commission, at Fig. 2 (Aug. 10, 2015), https://ec.europa.eu/energy/sites/ener/files/documents/Final%20Report_GLOBIOM_publication.pdf.

European Commission, Commission Delegated Regulation (EU) (Mar. 13, 2019), https://www.transportenvironment.org/sites/te/files/PART-2019-142068V1.pdf.

Environmental groups note that this directive has loopholes—resulting from trade policy pressures. See EU Labels Palm Oil in Diesel as Unsustainable, Transport & Environment (Mar. 13, 2019), https://www.transportenvironment.org/press/eu-labels-palm-oil-diesel-unsustainable.

^{22.} Off the coast of Maine, oysters and mussels have long been harvested sustainably and without harm to marine environments, but a proposal to expand an operation to 40 acres is raising environmental concerns. See Paul Dioli, Maine Voices: Oyster Company's Plan for 40-Acre Lease Is Bad for Bay, Public, PORTLAND PRESS HERALD (Nov. 15, 2018), https://www.pressherald.com/2018/11/15/maine-voices-oyster-companys-plan-for-40-acre-lease-isbad-for-bay-public/; see also Maine Oyster-trail 2015 Spring Update, University of Maine (last visited June 11, 2019), https://seagrant.umaine.edu/maine-oyster-trail; New Report Big Opportunity for Maine Aquaculture Industry, Gulf of Maine Research Institute (Oct. 26, 2016), https://www.gmri.org/news/news-archive/new-report-big-opportunity-maine-aquaculture-industry.

^{23.} For example, Cooke Aquaculture's Atlantic operations used illegal pesticides that caused massive lobster die-offs off the coast of Maine and New Brunswick. See Bill Trotter, Cooke Aquaculture to Pay \$490,000 After Illegal Pesticides Kill Lobsters in Canada, BANGOR DAILY NEWS (Apr. 27, 2013),

pollute ocean waters with large volumes of fish wastes.²⁴ Escaped farmed fish can interbreed with wild fish, transferring diseases and altering biology. This latter concern raised ecological and legal issues under the federal Endangered Species Act in Maine,²⁵ and is at the root of a dispute in Washington State. There, the Canadian company Cooke Aquaculture threatened to sue for 76 million USD plus lost anticipated profits pursuant to the investor-state dispute settlement (ISDS) provisions of the North American Free Trade Agreement (NAFTA), unless the state backed down from a plan to tightly restrict all aquaculture operations after hundreds of thousands non-native Atlantic salmon repeatedly escaped from the company's fish farms into Puget Sound.²⁶

Land-based aquaculture, too, is destructive. Intensive shrimp farming in southeast Asia is destroying mangrove forests and opening up the coastline to erosion, with heavy chemical use.²⁷ Aquaculture-caused deforestation has a climate link: one scientist has estimated the carbon intensity of shrimp from deforested mangroves is 10 times greater than that of beef grown in deforested Amazonian rain forest, without including the energy involved in feeding, processing, and transporting the shrimp.²⁸ The parallels between modern aquaculture and industrial agriculture are becoming even clearer as transnational corporations including Archer Daniels Midland and Cargill are buying up fish feed companies and considering starting their own fish farms.²⁹ It is also questionable whether farmed fish replaces wild-caught fish in the marketplace and will ultimately help sustain global marine resources. A new study

https://bangordailynews.com/2013/04/27/business/cooke-aquaculture-to-pay-490k-after-illegal-pesticides-kill-lobsters-in-canada/.

- See National Research Council of the National Academies, Atlantic Salmon in Maine, Consensus Study Reports, at 82-90 (2004), https://www.nap. edu/read/10892/chapter/5#82.
- See Press Release, Cooke Aquaculture Pacific Urges Lawmakers to Consider Jobs, Science-Based Policy, Fair and Equitable Treatment, ISDS Platform (Feb. 19, 2018), https://isds.bilaterals.org/?cooke-aquaculture-pacific-urges; see also Cindy Carr, ICYMI: Canadian Corporation Uses NAFTA to Threaten Proposed Protection for Puget Sound, Sierra Club (Feb. 22, 2018), https:// www.sierraclub.org/press-releases/2018/02/icymi-canadian-corporationuses-nafta-threaten-proposed-protection-for-puget.
- 27. See Zoe Osborne, The Environmental Hazards of Intensive Shrimp Farming on the Mekong Delta, Pacific Standard (July 20, 2018), https://psmag.com/ environment/the-environmental-impacts-of-shrimp-farming-in-vietnam; see also Federico Páez-Osuna, The Environmental Impact of Shrimp Aquaculture: Causes, Effects, and Mitigating Alternatives, 28 ENVIL. MGMT. 1, at 131-40 (July 2001), https://www.ncbi.nlm.nih.gov/pubmed/11436996.
- See Erik Stokstad, The Carbon Footprint of a Shrimp Cocktail, Sci. Mag. (Feb. 17, 2012), https://www.sciencemag.org/news/2012/02/carbon-footprint-shrimp-cocktail.
- See Claire Kelloway, Big Ag Eyes Big Aquaculture, FOOD & POWER (Feb. 28, 2019), http://www.foodandpower.net/2019/02/28/big-ag-eyes-big-aquaculture/.

indicates global aquaculture production largely supplements fisheries capture.³⁰

Meyer is on firmer ground in making the case that solar and wind energy projects are renewable, and that projects and investment that otherwise would have displaced or at least not increased GHG emissions have been directly threatened by the selective enforcement of the WTO's subsidy rules. Indeed, the WTO's ruling in favor of the challenge to Ontario's wind energy feed-in tariff and local content rules, and the tit-for-tat investigations and WTO challenges (especially the retaliatory investigations by India and China into U.S. sub-federal programs intended to boost renewables)³¹ chilled the expansion of U.S. state-level renewable policies.³² This matters, as in recent years, most of the innovation in energy policy in the United States has been at the sub-federal level.

IV. The Broader Context of the Subsidy Problem

The larger picture is that trade rules that promote fossil fuels and discourage alternatives are a problem that go well beyond the WTO's subsidy agreement. Rebalancing trade rules to support, rather than undermine, a transition to a low-carbon economy and a sustainable environment is a decidedly uphill challenge. At the fore of these climateharming policies is the ISDS system allowing corporations to challenge even-handed domestic policies they claim unfairly limit their profits. Half of all ISDS cases registered at the World Bank by the end of 2015 related to oil, mining, gas, electric power or other energy forms.³³ Many of these were brought pursuant to the Energy Charter Treaty (ECT), a trade and investment agreement that deals exclusively with the energy sector and applies to nearly 50 countries. This treaty was the basis for challenges, for example, over environmental restrictions on a coal-fired power plant and for phasing out nuclear power in Germany, and a ban on offshore oil drilling in Italy. Outside of international energy lawyers the ECT is little known; the fact that many

^{24.} See, e.g., Key Issues: Salmon Farming, TBuck Suzuki Environmental Foundation, http://www.bucksuzuki.org/key-issues/salmon-farming1/; see also Celine Serrat, Taking the Environmental Bite Out of Salmon Farming (Sept. 28, 2016), https://phys.org/news/2016-09-environmental-salmon-farming. html; John Vidal, Salmon Farming in Crisis: "We Are Seeing a Chemical Arms Race in the Seas," THE GUARDIAN (last amended Apr. 2, 2017), https://www.theguardian.com/environment/2017/apr/01/is-farming-salmon-bad-for-the-environment.

See Stefano B. Longo et al., Aquaculture and the Displacement of Fisheries Captures, Conservation Biology (Feb. 4, 2019), https://doi.org/10.1111/ cobi.13295.

Panel Report, United States—Certain Measures Relating to the Renewable Energy Sector, WT/DS510/R (June 27, 2019) (holding that the renewable energy policies of seven U.S. states violated WTO rules as being discriminatory because they provided preferential treatment/subsidies for use of locally produced content).

Personal experience of the author and other U.S. state legislators seeking to enact renewable energy policies; State of Maine Citizen Trade Policy Commission, Add. to 2012 Trade Policy Assessment, at 31-34 (Aug. 2012), https:// www.maine.gov/legis/opla/CTPC2012finalassessment.pdf.

^{33.} See Trade Justice Movement, Take Back the Power: Energy Transition and the International Trade and Investment Regime (2016), https://www.tjm.org.uk/documents/reports/Take_back_the_power_-energy_transition_and_the_international_trade_and_investment_regime_FINAL.pdf; see also Investment Policy Hub, Investment Dispute Settlement Navigator, UNCTAD, https://investmentpolicyhub.unctad.org/ISDS (last visited June 24, 2019) (showing current data).

of the investor lawsuits under the treaty remain secret keeps it that way.³⁴

Despite lip service to the Paris Climate Agreement and the need to address global GHG emissions, recent regional trade agreements track problematic WTO provisions and go much further in promoting trade in fossil fuels; limiting controls over fuel extraction and pipeline development; and restricting not only subsidies, but local procurement and content policies that would otherwise help jumpstart renewable energy industries. Official messaging notwithstanding,³⁵ the full range of climate-unfriendly policies, including ISDS in slightly modified form, are found in both the EU-Canada trade agreement (CETA)³⁶ and the now 11-country Transpacific Partnership (rebranded the "Comprehensive and Progressive" TPP or CPTPP),³⁷ both finalized after the Paris Agreement. These same policies were being pursued in the ultimately unsuccessful EU-US Trans-Atlantic Trade and Investment Partnership (TTIP) negotiations taking place during and after the Paris Agreement was negotiated.³⁸ European political initiatives to reform fossil fuel subsidy policies in TTIP went nowhere.³⁹

Illustrating this disconnect, at the same time the Obama Administration was signing onto the Paris Agreement, the U.S. Trade Representative largely ignored climate impacts in its required environmental review of TTIP, and acted to remove references to climate change in the TPP.⁴⁰ The Trump Administration's new NAFTA, re-branded the "US-Mexico-Canada Agreement" (USMCA), generally

34. See Pia Eberhardt et al., One Treaty to Rule Them All: The Energy Charter Treaty and the Power It Gives Corporations to Halt the Energy Transition, Corporate Europe Observatory (June 13, 2018). https://corporateeurope.org/international-trade/2018/06/one-treaty-rule-them-all.

 See Ernst-Christoph Stolper, Free Trade or Climate Protection? Energy and Climate Policy-Related Threats Posed by CETA, in Making Sense of CETA, 57-64 (Hadrian Mertins-Kirkwood et al. eds., Marie-Sophie Keller & Madeleine Drescher trans., 2d ed. 2016),https://corporateeurope.org/sites/default/files/attachments/making-sense-of-ceta-2018.pdf. furthers this fossil fuel-friendly agenda. 41 Strikingly, while changing some of the most egregious investment rules and removing ISDS between Canada and the United States, the new NAFTA would continue ISDS for Mexico's oil and gas sector. The new NAFTA also prevents countries from restricting exports of goods, including energy products, to another party, which could hamstring some supply-side climate policies; and a U.S.-Canada side letter on energy guarantees access to each other's pipeline networks for importing and exporting fossil fuels. 42

We can speculate as to why governments have been so uninterested in challenging fossil fuel subsidies and so willing to sign onto the Energy Charter Treaty and maintain special rights for oil and gas companies in their regional trade and investment agreements. The fossil fuel, chemical and agribusiness industries are all well-represented in meetings on trade policy with European Commission staff.43 The oil and gas industry spent over \$125 million on lobbying the U.S. government in 2018 and millions more in direct and indirect campaign contributions, 44 and there is a continuous revolving door as government staff leave for the energy industry and cycle back again. 45 The USTR has institutionalized preferential industry access to the trade negotiation process through industry advisory committees, and the energy sector has its own committee. 46 And governments are themselves economic actors, with direct stakes in oil and gas exploration and production.

In the fisheries context, some recent regional trade agreements have included provisions to phase out fisheries subsidies that contribute to overfishing or to illegal activities. CPTPP Article 20.16 prohibits subsidies which have a negative effect on overfished fisheries or benefit vessels carrying out illegal, unreported and unregulated fishing, and any new specific subsidies to fisheries that contribute

^{35.} For example, outside of the CETA agreement itself, the EU and Canada promised to "promote the mutual supportiveness of trade and climate policies" and mentioned the Paris Agreement. See Press Release, European Commission, Canada and the European Union Hold the Inaugural Meeting of the CETA Joint Committee (Sept. 27, 2018), http://europa.eu/rapid/press-release_STATEMENT-18-5924_en.htm; see also Megan Darby, Canada and EU Add Climate Clause to Trade Pact, Euractiv (Sept. 28, 2018), https://www.euractiv.com/section/climate-environment/news/canada-and-eu-add-climate-clause-to-trade-pact/; European Commission, CETA: Taking Action for Trade and Climate (Jan. 24, 2019), https://ec.europa.eu/clima/events/ceta-taking-action-trade-and-climate_en.

^{37.} See Oliver Hailes et al., Climate Change, Human Health and the CPTPP, NEW ZEALAND MED. J., at 7-12 (2018), https://www.researchgate.net/publication/323664461_Climate_change_human_health_and_the_CPTPP; see also Ben Lilliston, The Climate Cost of Free Trade: How TPP and Trade Deals Undermine the Paris Climate Agreement, Institute for Agriculture and Trade Policy (Sept.2016), https://www.iatp.org/sites/default/files/2016_09_06_ClimateCostFreeTrade.pdf.

^{38.} See Irene Monasterolo & Marco Raberto, No Contest: Green vs. Brown Subsidies Under the TTIP, in Trade in the Balance: Reconciling Trade and Climate Policy, at 28-35 (2016), https://www.law.georgetown.edu/wpcontent/uploads/2017/09/Pardee_TradeClimate_110316final.pdf.

See Constanze Adolf et al., TTIP and Fossil Fuel Subsidies: Using International Policy Processes as Entry Points for Reform in the EU and the USA, Heinrich Boll Stiftung TTIP Series (2014), https://eu.boell.org/sites/default/files/hbs_ttip_fossil_fuel_subsidies_1.pdf.

^{40.} See Matthew C. Porterfield et al., Assessing the Climate Impacts of U.S. Trade Agreements, 7 Mich. J. Envil. & Admin. L. 51 (2017), https://repository.law.umich.edu/cgi/viewcontent.cgi?article=1069&context=mjeal.

^{41.} See Ben Lilliston, "New NAFTA" Continues Damaging Climate Legacy, Institute for Agriculture & Trade Policy (Oct. 17, 2018), https://www.iatp.org/documents/new-nafta-continues-damaging-climate-legacy; see also Kevin Book et al., A First Look at the Naftermath, Clearview Energy Partners, LLC (Oct. 2, 2018), https://gallery.mailchimp.com/0554cc7ed0bda904329a48c93/files/4c7b719b-d6e8-4052-8f4b-2fb6c81056c8/2018_10_02_The_Naftermath.pdf (side-by-side comparison of the energy-related provisions of the original NAFTA and the USMCA).

^{42.} See Hadrian Mertins-Kirkwood, Updated NAFTA Deal a Profound Failure for Climate Action, Canadian Centre for Policy Alternatives (Oct. 12, 2018), http://behindthenumbers.ca/2018/10/12/updated-nafta-deal-a-profound-failure-for-climate-action/; see also Dr. Frank Ackerman et al., NAFTA 2.0: For People or Polluters? A Climate Denier's Trade Deal Versus a Clean Energy Economy, Sierra Club (2018), https://www.sierraclub.org/sites/www.sierraclub.org/files/uploads-wysiwig/NAFTA%20and%20Climate%20Report%202018.pdf.

See TTIP Reloaded: Big Business Calls the Shots on New EU-US Trade Talks, Corporate Europe Observatory (Feb. 21, 2019), https://corporateeurope. org/international-trade/2019/02/ttip-reloaded-big-business-calls-shots-new-eu-us-trade-talks.

^{44.} See Oil & Gas: Summary, OpenSecrets (last accessed June 12, 2019), https://www.opensecrets.org/industries/indus.php?cycle=2018&ind=E01.

See Revolving Door: Top Industries, OpenSecrets (last accessed June 12, 2019), https://www.opensecrets.org/revolving/top.php?display=I.

See U.S. Department of Commerce and the Office of the United States
 Trade Representative, Industry Trade Advisory Committee on Energy and Energy Services Itac6 (last visited Mar. 12, 2019), https://www.trade.gov/itac/committees/itac06.asp.

to overfishing or excess capacity to fish.⁴⁷ Although the banned subsidies are very narrowly defined in the new NAFTA, the text does set a hard deadline of three years for the parties to come into compliance.⁴⁸ Environmentalists have called into question how meaningful these measures are, given that enforcement is largely unchanged from the ineffective mechanisms of prior FTAs.⁴⁹ Still, the specificity of the fishing subsidy commitments (which also cross-reference the WTO's SCM agreement) contrasts with the vague climate and fossil fuel references in the same agreements. Perhaps this is a result of the many years of (otherwise inconclusive) multilateral WTO negotiations to finalize a global agreement to end fishing subsidies by 2020.

V. How Best to Reform a Broken System?

Meyer effectively makes the case that reform is needed to address environment-harming fossil fuel and fishing subsidies. The question is how best to achieve it, and practically speaking, what change is possible, especially given the overwhelming advantage oil and gas, and associated industries, have in buying and exercising influence. The WTO comprises a powerful set of enforceable rules promoting international trade; the goal "is to ensure that trade flows as smoothly, predictably and freely as possible."50 The goal of the WTO is not to promote environmental sustainability, public health, or to address climate change, and as Meyer has demonstrated, nor does it. This goes for the SCM agreement itself; the rules of that agreement are fundamentally about enhancing trade—not enhancing the environment. Does it make sense, then, to give this entity independent enforcement authority to root out subsidies that promote GHG emissions or overfishing, as Meyer has proposed? And if not, what's the alternative?

My initial reaction to Meyer's proposal was to reject it out of hand as empowering the wrong venue. Even those of us who would like to see limits placed on harmful subsidies may balk at turning over powerful new enforce-

Subsidy programs that are established by a Party before the date of entry into force of this Agreement and are subsidies referred to in paragraph 1(b) shall be brought into conformity with paragraph 1 as soon as possible and no later than three years after the date of entry into force of this Agreement.

https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/24_Environment.pdf.

ment authority to the WTO, an institution promoting a global trade model that has helped drive the very harms it would now be tasked with ameliorating. In his recent article, *What Do Trade Agreements Really Do?*,⁵¹ noted international political economy professor Dani Rodrik argues that modern trade agreements "serve to empower special interests, rather than rein them in." In an example relevant to our subsidy discussion, he makes the case that moving the focus of international negotiation on intellectual property into the trade sphere—from the UN's World Intellectual Property Organization to the WTO— "was a brilliant strategic move for business. It ensured that commercial considerations would dominate and outweigh other goals, such as implications for economic development and public health."⁵²

On a practical level, too, it seems unlikely that the independent prosecutorial function Meyer proposes would be agreed to in time to make a significant dent in climate-harming emissions. Environmentalists would not be alone in having reservations. Certainly, the United States is unlikely to support this reform. Recent comments by Kelly Ann Shaw, special assistant to the president for international trade, investment and development, that the WTO is "stuck in the past," do not refer to the need to incorporate environmental sustainability and climate change considerations into WTO decisionmaking. Rather, the United States is pushing new rules to reduce the number of WTO members claiming "developing" status, among other changes."53

Even the investigative and reporting function outlined in what Meyer calls his "weak" version raises concerns of balance and the appropriateness of the trade-promoting WTO as arbiter. As evidence of the complexity of the task, consider the differing conclusions about the environmental impacts of aquaculture and GHG emissions produced by biofuels discussed above. For a real-world example of environmental decisionmaking going awry when the overarching framework is trade liberalization, we need only look to the Environmental Goods Agreement (EGA) being negotiated by WTO members, which aims to reduce or eliminate tariffs on "environmentally beneficial" products and services.⁵⁴ Potentially, the EGA could be a mechanism to indirectly address one of the problems Meyer identifies: subsidy challenges that increase the cost of renewable energy, making it less competitive in the marketplace. In

^{47.} See discussion in The Politics of Fossil Fuel Subsidies and Their Reform, at 121-39 (Jakob Skovgaard & Harro Van Asselt eds., Cambridge Univ. Press, 2018), https://www.cambridge.org/core/services/aop-cambridge-core/content/view/B8CB7D383F33AD9AF9CC82EB50A74DE5/9781108416795AR. pdf/The-Politics_of_Fossil_Fuel_Subsidies_and_their_Reform.pdf?event-type=FTLA; see also Consolidated Trans-Pacific Partnership, at Ch. 20—Environment (last modified Dec. 6, 2016), https://international.gc.ca/trade-commerce/trade-agreements-accords-commerciaux/agr-acc/tpp-ptp/text-texte/20.aspx?lang=eng.

^{48.} USMCA, Art. 24.20.2:

See World Trade Online, Environmental Groups: USMCA "Weak" on Past Environmental Agreements, INSIDETRADE (Oct. 5, 2018), https://insidetrade. com/daily-news/environmental-groups-usmca-weak-past-environmental-agreements.

World Trade Organization, The WTO (last visited June 12, 2019), https://www.wto.org/english/thewto_e/thewto_e.htm.

^{51.} Dani Rodrik, What Do Trade Agreements Really Do?, 32 J. ECON. PERSP. 2, 73-90 (Spring 2018), http://j.mp/2EsEOPk.

^{52.} Id. at 84. Those commercial considerations have culminated in the new NAFTA's extreme pharmaceutical and biotechnology IP protections. See James Love, KEI's Pre-Hearing Submission to the ITC on the USMCA, KNOWLEDGE ECOLOGY INT'L (Oct. 31, 2018), https://www.keionline.org/29175; see also USMCA Ch. 20, https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/20_Intellectual_Property_Rights.pdf.

World Trade Online, White House Adviser: Lack of Negotiations at the Heart of U.S. WTO Concerns, INSIDE TRADE (Mar. 7, 2019), https://insidetrade.com/daily-news/white-house-adviser-lack-negotiations-heart-uswto-concerns?s=em.

World Trade Organization, Eliminating Trade Barriers on Environmental Goods and Services (last accessed June 12, 2019), https://www.wto.org/english/tratop_e/envir_e/envir_neg_serv_e.htm (last accessed June 12, 2019)

practice, the EGA seems less about promoting environmental protection than promoting tariff-free trade. The list of 54 products considered environmentally beneficial by the APEC countries includes environmentally harmful chemical and toxic waste incinerators, for example.⁵⁵

Although the WTO-sponsored negotiations on ending fishing subsidies have yet to result in agreement, the results of this exercise may offer a counter-argument in favor of WTO involvement in further subsidy reform. As detailed above, recent regional trade agreements have included potentially enforceable bans, with deadlines, on certain fishing subsidies—measures which appear to be an outgrowth of the WTO-sponsored talks.⁵⁶ This is similar to the International Labour Organization model, which has developed labor rights standards outside of the WTO. The ILO standards have been incorporated into trade agreements where, if the enforcement mechanism (and political will) are strong enough, they have the potential to achieve reforms.⁵⁷ While seemingly a small step, just putting together a comprehensive fossil fuel subsidy database (and agreeing on what is a subsidy) would likely help advance climate action. When you see the wildly different estimates of how much money is funneled into subsidies—compare Meyer's 2014 figure of \$984 billion with other estimates of \$2.6 to 5.3 trillion based on different definitions and data—the problem is apparent. Without agreement even as to what constitutes a

subsidy and a public database of information, phasing out fossil fuel subsidies is even more difficult.⁵⁸

VI. Conclusion

The worldwide climate crisis and our planet's overfished oceans are in part the consequence of the global trading system established and implemented through the WTO. Multilateral negotiations focused on environmental and public health, including the Paris Climate Agreement and the UN's Sustainable Development Goals, lack the tradebased enforcement mechanisms available through the WTO. Powerful financial and political interests, which dump vast sums of money into lobbying and campaign donations, support this trading system and are arrayed against progress in the public interest negotiations. To his credit, Timothy Meyer has suggested some reforms of the WTO to start to redress this imbalance. But setting up the WTO as a powerful arbiter of environmental values and disputes could backfire and further empower the fossil fuel industry and other commercial interests. Alternatively, the WTO may serve a useful role as convener, as the global fisheries subsidy negotiations have demonstrated, and in developing and disseminating the fossil fuel subsidy data needed to ensure more effective agreements in the future.

^{55.} See Ilana Solomon, Trade in Environmental Goods May Not Actually Be So Good, Sierra Club (Jan. 24, 2014), https://blogs.sierraclub.org/compass/2014/01/trade-in-environmental-goods-may-not-actually-be-so-good.html; see also APEC List of Environmental Goods (Sept. 8, 2012), https://www.apec.org/Meeting-Papers/Leaders-Declarations/2012/2012_aelm/2012_aelm_annexC.aspx. The APEC list is just the starting point for further negotiations toward an EGA encompassing the United States, the EU, and other countries "together accounting for nearly 90% of global exports in environmental goods." See Office of the United States Trade Representative, Environmental Goods Agreement (last accessed June 12, 2019), https://ustr.gov/trade-agreements/other-initiatives/environmental-goods-agreement.

^{56.} New Zealand claims it is the reason these subsidies were addressed in the CPTPP. See Farah Hancock, NZ Leads Push to End Fishing Subsidies, NEWS-ROOM, https://www.newsroom.co.nz/2018/03/04/93563/nz-leads-push-to-end-fishing-subsidies ("New Zealand does not provide harmful subsidies to the fishing industry and has been involved in attempting to ban subsidies for illegal, unreported, and unregulated fishing through the World Trade Organisation (WTO) for many years.").

See generally International Labour Organization, Labour Standards (last accessed June 12, 2019), https://www.ilo.org/global/standards/lang--en/index htm

^{58.} See Laura Merrill et al., Better Datasets Urgently Needed to Understand Full Scale of Fossil Fuel Subsidies, International Institute for Sustainable Development (Feb. 16, 2018), https://www.iisd.org/blog/betterdatasets-urgently-needed-understand-full-scale-fossil-fuel-subsidies.