

JUNE 8, 2021 | NUMBER 80

## Free Trade in Environmental Goods Will Increase Access to Green Tech

BY JAMES BACCHUS AND INU MANAK

**N**egotiations to liberalize trade in environmental goods began in 2014 at the World Trade Organization (WTO) with the aim of removing tariffs on a wide range of environment-related products. While there was ample progress in just two years, talks soon stalled as countries clashed over the content of the deal. With President Biden's focus on addressing climate change, he has an opportunity to relaunch these talks and encourage other countries to come to the table. Freeing trade in environmental goods is a policy area with bipartisan consensus, and one which can help achieve the goal of moving toward a greener economy. This paper provides an overview of negotiations on freeing trade in environmental goods to date, details the hurdles to a final deal, and suggests the inclusion of environmental services in a subsequent negotiation package to fully reap the benefits of this growing sector.

### INTRODUCTION

President Biden has made tackling climate change a top priority. Although there are many different avenues to achieve this goal, trade is one policy option that the current administration should consider. Trade in environmental goods is a fast-growing global market, estimated at just over \$1 trillion in annual trade in 2016.<sup>1</sup> It is also a market in which the United

States is a leader. In 2015, U.S. exports of environmental goods totaled \$238 billion and grew at an annual rate of 6 percent since 2012.<sup>2</sup> If the goal is to enhance U.S. competitiveness in the global economy, then boosting trade in cutting-edge, high-tech environmental goods is one good way to do it.

Eliminating tariffs on these products will provide an opportunity to energize trade in this sector. Equally, it will enhance access to the new green technologies by reducing the price of these new green goods. Environmental goods are especially needed in developing countries, which do not always have access to advanced technologies from developed countries. This kind of duty-free trade is a win-win-win scenario for trade, the environment, and the U.S. economy.

On April 8, 2021, a group of House Democrats introduced a congressional resolution urging Biden to resume, within 90 days, the long-deadlocked negotiations in the World Trade Organization (WTO) to end tariffs on environmental goods. They declared that restarting these negotiations “represents a significant opportunity to help countries across the world access high-quality affordable environmental goods while also leveling the playing field for American manufacturers and supporting green jobs.”<sup>3</sup> Two weeks later, on Earth Day, Republicans on the House Ways and Means Committee submitted a letter to U.S. Trade Representative Katherine Tai urging her to “resume negotiations to complete an ambitious Environmental

---

James Bacchus was a founding member and twice chairman (chief judge) of the Appellate Body of the World Trade Organization. He is the Distinguished University Professor of Global Affairs and director of the Center for Global Economic and Environmental Opportunity at the University of Central Florida. Bacchus is also an adjunct scholar at the Cato Institute. Inu Manak is a research fellow at the Cato Institute's Herbert A. Stiefel Center for Trade Policy Studies.

Goods Agreement (EGA) that would eliminate tariffs on U.S. clean energy exports, creating U.S. jobs and reducing global emissions,” adding that “This is a timely opportunity to advance a broad range of important U.S. goals.”<sup>4</sup>

These Democrats and Republicans are right.

Biden has said that new trade deals should wait until pressing domestic needs are addressed and the United States has “invested in Americans.”<sup>5</sup> That would be a mistake. Lowering barriers to trade in environmental goods will empower Americans to have access to a wider range of environmental products and also open markets for innovative American technologies. In remarks to a Joint Session of Congress, he stated that “the climate crisis is not our fight alone; it’s a global fight.”<sup>6</sup> Therefore, the global deal on trade in environmental goods is one concrete way to address climate change while also liberalizing the economy.

## BACKGROUND

Discussions on freeing trade in environmental goods began 20 years ago as part of negotiations on trade and the environment in the Doha Development Round of WTO multilateral trade negotiations. In 2001, all WTO members agreed to negotiate multilaterally (meaning that every country would participate in negotiations) on “the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services.”<sup>7</sup> More than a decade of WTO talks on this topic were unsuccessful. Then, at the annual World Economic Forum in Davos in January 2014, a group of 14 WTO members announced their intent to negotiate a plurilateral agreement in pursuit of global free trade in environmental goods. A WTO plurilateral agreement need not involve the entire WTO membership of 164 countries and other customs territories. Instead, it allows a group of countries that want to negotiate new commitments to liberalize trade to do so without waiting for the rest of the WTO members to agree. There are different types of plurilaterals, and in cases such as the EGA, duty-free commitments are extended to all members, including those that have not yet signed the agreement.<sup>8</sup>

Formal negotiations for the EGA were launched at the WTO in July 2014. A total of 46 members of the WTO have participated in these negotiations, representing nearly 90 percent of global trade in environmental goods. Because these countries make up almost the entire market for these products, reducing barriers to trade in environmental goods among them would be of enormous benefit to all WTO members in confronting the many challenges posed by climate

change. Figure 1 shows the WTO members involved in negotiations to date.

The EGA covers a wide range of product categories “that can help achieve environmental and climate protection goals, such as generating clean and renewable energy, improving energy and resource efficiency, controlling air pollution, managing waste, treating waste water, monitoring the quality of the environment, and combatting noise pollution.”<sup>9</sup> Initial discussions on the product categories were based on an Asia-Pacific Economic Cooperation forum (APEC) list of 54 environmental goods.<sup>10</sup> Talks have since expanded that original list to include more than 300 products.<sup>11</sup> But after 18 rounds of negotiations, WTO members have not settled on precisely what the agreement will cover.<sup>12</sup>

## STALLED ENVIRONMENTAL GOODS AGREEMENT NEGOTIATIONS

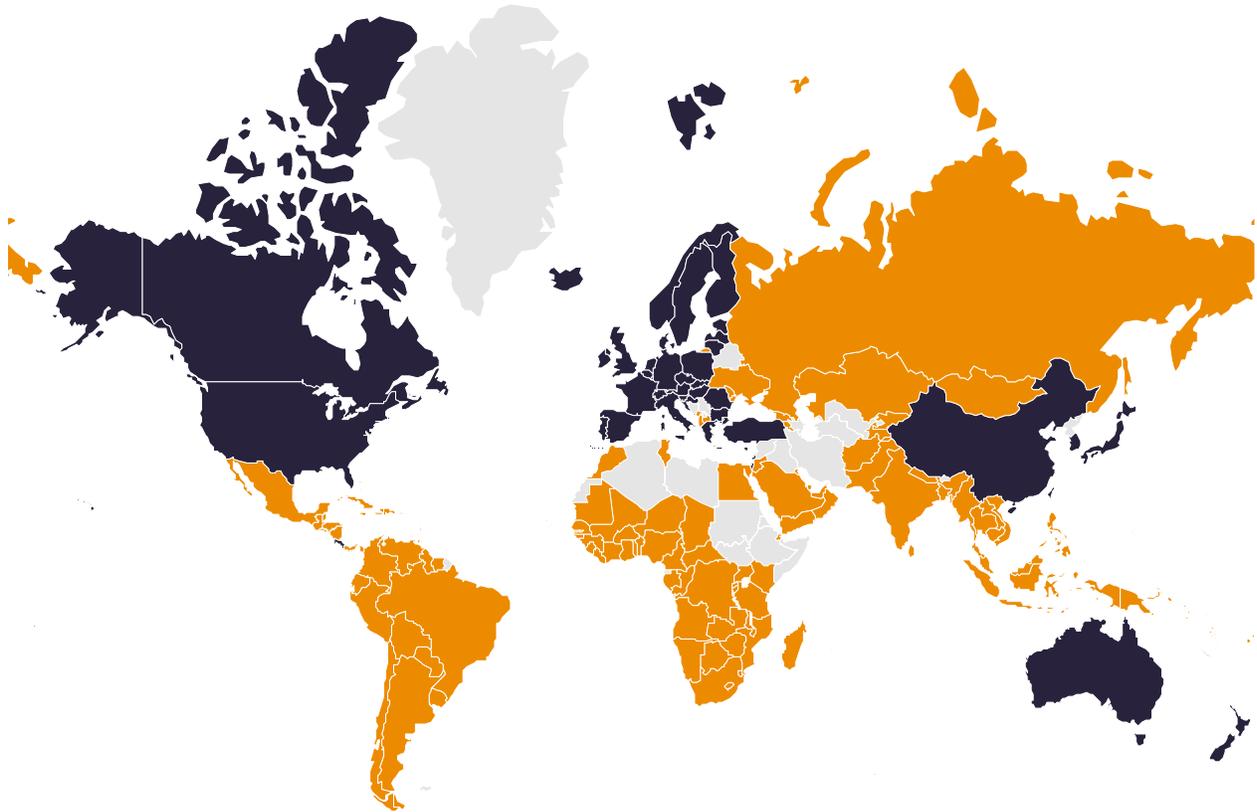
When negotiations on the EGA began, the goal was to conclude an agreement in 2017. The Obama administration made significant headway but EGA negotiations collapsed in December 2016 when negotiators failed to find common ground on which goods would be covered by the proposed agreement. China, which had appeared a hesitant party to the talks all along, made new requests at the last minute that others could not accept. And, since the Trump administration was more inclined to raise tariffs rather than lower them, it displayed scant interest in continuing with the environmental goods talks. After nearly two decades and various attempts at trade negotiations, there is still no WTO agreement.

There are three key obstacles to concluding a deal on environmental goods at the WTO: building consensus on what qualifies as an environmental good; protectionism and a mismatch of goals among WTO members; and disagreement over whether to take a dynamic or static approach. We address each in turn.

### Defining an Environmental Good

The highest hurdle to finishing EGA talks is reaching a consensus on which goods are, in fact, environmental goods. Currently, negotiators have not tried to define environmental goods; they have only tried to list them. The negotiations began with a list of 54 products previously agreed by the APEC countries of the Asia-Pacific Region.<sup>13</sup> The Organisation for Economic Co-operation and Development (OECD) has a broader list of 248 products, which combines the APEC list; the Friends group list

Figure 1

**Environmental Goods Agreement participants**

WTO non-EGA participants

WTO EGA participants

Source: “Environmental Goods Agreement,” World Trade Organization, [https://www.wto.org/english/tratop\\_e/envir\\_e/ega\\_e.htm](https://www.wto.org/english/tratop_e/envir_e/ega_e.htm).

Note: EGA = Environmental Goods Agreement; WTO = World Trade Organization. Countries and territories that are not members of the WTO are colored in gray.

(Canada, the European Union, Japan, Korea, New Zealand, Norway, Switzerland, Chinese Taipei, and the United States); and the OECD’s list of climate-change-relevant goods for a plurilateral environmental goods and services (PEGS) agreement.<sup>14</sup> Other groups have put forward even broader lists, with some containing seemingly everything, including (literally) the kitchen sink.<sup>15</sup>

The difficulty lies in the fact that there isn’t a clearly defined environmental goods sector. A major challenge here is a practical one—there isn’t a single chapter in the Harmonized System (HS) of tariff nomenclature (an international standard used to classify products for customs purposes) on environmental goods. One reason for this is because these goods can have dual uses (e.g., pumps can be used to treat wastewater but can have other applications). But there

can also be products that act as cleaner or more-efficient substitutes for existing products (e.g., high-efficiency washing machines). Furthermore, some environmental goods are components of other goods—these are called intermediate inputs to finished products, and include items such as metal waste and scraps from recycling. So while it may be straightforward to agree on including wind turbines, solar panels, and the like in the EGA, beyond what we commonly think of as environmental goods there is a lot of uncertainty in how to classify products with environmental uses. In general, WTO talks on an environmental goods agreement have focused on the following criteria: goods with an environmental end-use; goods that contribute to multiple environmental categories; goods that are part of a system (e.g., waste management chain); and goods that are the main product.

## Protectionism and Mismatch of Goals

Like any trade agreement, protectionism also plays a role. Take bicycles, for example. China had asked that the list of goods for the EGA include bicycles, which they claim are environmental goods. This request has been resisted by the European Union and by the United States, which have imposed anti-dumping duties on imports of Chinese-made bicycles and see no need for such imports to be duty-free.<sup>16</sup> As economists Jaime de Melo and Jean-Marc Solleder noted,

By any environmental measure, bicycles should be non-controversial; they emit no greenhouse gases; unlike some products (e.g., incandescent versus LED light bulbs), they are not subject to technological change that might justify their addition or removal from the list; and they provide health-related co-benefits.<sup>17</sup>

Of course, the negotiation of product coverage in a trade agreement is a political exercise, so these challenges are to be expected.

Looking beyond the question of which products will be on the list for duty-free treatment, an underlying obstacle to reaching an agreement is the different goals of the countries involved. As Maureen Hinman, a former U.S. trade negotiator on this issue, explains, countries are participating in EGA talks because they need access to foreign environmental technology and because they want market access for domestic environmental goods. Where there is agreement on both of these objectives, countries are able to strike a compromise that can benefit everyone. But, where there is no agreement, this difference makes for a mismatch in goals that impedes a successful outcome to the negotiations.<sup>18</sup>

China perhaps best illustrates the problem of only being concerned with securing more market access for its exports. Its approach to the environmental goods negotiations might best be described as green mercantilism. China leads the world in the export of environmental technology but China badly trails the developed countries, including the United States and the European Union, in “enforcing its own environmental rules and implementing environmental technologies.” Consequently, as Hinman explains, China’s domestic market for non-energy-related environmental technologies is much smaller than it should be given the size of its economy. Thus, China has less domestic demand to import such environmental goods and the Chinese government is able to focus on limiting foreign competition by maintaining tariffs on some of the most significant of China’s domestic production of environmental goods.<sup>19</sup>

It should therefore not be surprising that China has been accused of lacking ambition in the EGA talks and of “having fundamental issues with product coverage.” In fact, in the spring of 2016, the countries involved were separated out into two groups to reach agreement on a joint product list: the first group included the United States, the European Union, Canada, Japan, Korea, Australia, and New Zealand, which worked on an “environmentally credible and commercially relevant product list” while being mindful of “domestic sensitivities;” and the second group was made up of a number of “smaller economies” that sought a “more ambitious agreement.”<sup>20</sup> China sat on the sidelines.

In addition to this fundamental difference of goals, there were also disagreements over how tariff cuts would be implemented. The United States proposed a “baskets” approach, whereby tariffs would be eliminated on 75 percent of the tariff lines upon entry into force and other product categories would be dropped into different baskets for phasing out tariffs over specified times periods.<sup>21</sup> China, on the other hand, proposed that developed countries remove all their tariffs (except in some limited cases) and that developing countries be given three staging periods with an undefined number of years for phaseouts. China’s approach to give ample flexibility in implementation is generally the one favored by many developing countries. Interestingly, developing countries have either seemed indifferent to the EGA or have actively resisted it. This indifference seems to be driven by the fact that, as Mark Wu, previously a Harvard law professor and now a trade adviser in the Biden administration, has observed, “very few developing countries have much at stake in terms of exports” and it is also likely that they can achieve their objectives through free riding.<sup>22</sup> Their resistance seems to be motivated by their apprehension of being overwhelmed by a flood of imports of environmental goods. Of course, developed countries will profit by selling more environmental goods in developing countries. But developing countries can gain even more than developed countries by importing environmental goods, which will also help toward achieving one of the United Nations Sustainable Development Goals (SDGs). Goal 9 of the SDGs is to “[b]uild resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.”<sup>23</sup> One way of achieving this goal is by speeding the spread of the flow of new green goods throughout the world.

Underscoring these potential gains from more trade in environmental goods, a report by the International Trade Centre highlights that developing countries could benefit in a number of different ways: some already have a growing export sector in environmental goods (and services as well);

there is a potential for joint ventures with foreign multinationals that are investing in developing countries through purchases of domestic equipment and by plugging in to local knowledge; and developing countries can link into global and regional supply chains.<sup>24</sup> The bottom line is that developing countries have much more to gain than to lose through participation in the EGA.

### Dynamic versus Static Approach

Another hurdle to reaching an agreement is the expressed hope of the negotiators that it will become a “living agreement” that can expand and evolve over time.<sup>25</sup> The joint statement in Davos in 2014 of the countries that began the plurilateral negotiations speaks of concluding “a future-oriented agreement able to address other issues in the sector and to respond to green growth and sustainable development.”<sup>26</sup> One key to the success of such an open-ended agreement will be agreeing on a timely means of applying duty-free treatment to new environmental goods as they are developed and produced. In a comparable situation, it took WTO negotiators nearly 20 years to agree on adding new information technology (IT) goods to the list of goods for duty-free treatment in the WTO Information Technology Agreement—even though information technology was revolutionized several times during the interim.<sup>27</sup> A repeat of this long impasse would render a WTO agreement on environmental goods increasingly irrelevant as changes in technology continue.

One frequent objection to the current approach on the EGA is that, based on the experience of other, more limited exercises in identifying and classifying environmental standards, it is unrealistic to think that a “living list” of environmental goods eligible for duty-free treatment can be maintained. Some that favor freeing trade in environmental goods instead advocate for an approach that employs existing environmental standards, and, where such standards do not exist, establishes

objective criteria for including goods that would allow future additions. That is, if there is no standard for automobile fuel that would give preference to ethanol blends or other clean fuels, then those fuels should not be listed. But there should be certainty that, if and when a fuel standard is created that meets certain criteria, then fuels will be covered by the environmental goods and services regime.<sup>28</sup>

There could also be technological improvements that would make updated goods more desirable. Take the ex-

ample of high-efficiency (HE) washing machines—in a few years there may be advances that would make current HE washing machines relatively energy inefficient. The practical way to address this is to build consensus “on thresholds or boundaries” on environmental performance or energy efficiency but also to recognize bodies that provide such certifications, such as the HE label (this would require no update to the agreement itself).<sup>29</sup> The EGA presents an opportunity for out-of-the box thinking on how to craft the rules of trade agreements so that they are dynamic and responsive to changes in the global economy. In fact, this would do much to avoid the challenges of having to renegotiate deals and instead encourage ongoing dialogue between countries on how to improve the coverage and implementation of the agreement to best serve shared environmental goals.

### ENVIRONMENTAL GOODS AND SERVICES

Liberalizing trade in environmental goods is an important first step, but WTO members should expand the EGA to include free trade in environmental services. This was the original intent of WTO members as voiced in the Doha Declaration. This should likewise be their intent now. The WTO already has a way to classify environmental services, though it is rather limited because it was established as part of the Uruguay Round negotiations that led to the creation of the WTO.<sup>30</sup> Environmental services also have their own classification problems, as the core activities may not be environmental services. As one study explains, “architects and engineers offering landscape conservation or biodiversity protection could be considered providers of environmental services. They have different skills, educational, licensing and technical requirements than the architects or engineers who design and build water and wastewater infrastructure projects,” for example.<sup>31</sup>

There is a strong rationale for simultaneously pursuing liberalization in both environmental goods and services because environmental goods and environmental services are increasingly integrated. Indeed, in trade, services are increasingly embedded in goods. For example, freeing trade in environmental goods will boost international trade in products used to make wind power plants, but liberalizing services will, in addition, remove obstacles to providing the international services that are often needed to maintain those plants.<sup>32</sup> Some estimates also suggest that environmental services account for 65 percent of the environmental industry taken together.<sup>33</sup>

Liberalizing trade in environmental services will also be of particular benefit for countries balancing development

needs with protecting the environment.<sup>34</sup> The United States echoed a similar argument in a proposal on environmental services (although it has not, oddly, supported their inclusion in the EGA):

The increased competition that will result from improved market access for foreign firms can lead to innovation and the provision of improved environmental services. Less expensive and better quality services will serve to make health, safety, and environmental protection more efficient. This added efficiency is likely to be most beneficial in developing countries where financial concerns are often a key factor in the decision making process. This reduction in the costs of environmental services may make addressing environmental concerns more appealing for decision makers in developing countries.<sup>35</sup>

In addition to the costs savings for acquiring services, developing countries will also benefit by becoming more attractive locations for foreign investment through improved environmental performance. They also have the potential to generate more export opportunities by growing their domestic capacity to produce environmental goods and services.<sup>36</sup> The liberalization of both goods and services could thus promote a virtuous cycle for better environmental outcomes, increased innovation, and economic growth.

This said, the perfect should never be allowed to become the enemy of the good in international trade negotiations, and the conclusion of a WTO environmental goods agreement should not be conditioned on the simultaneous conclusion of an agreement that would free trade in the delivery of environmental services. Instead, an environmental goods agreement should serve as a foundation for the subsequent negotiation of an expanded agreement that would later include environmental services.

## **THE UNITED STATES SHOULD RELAUNCH ENVIRONMENTAL GOODS AGREEMENT TALKS**

The United States should take a strong interest in relaunching talks on the EGA. As the Office of the United States Trade Representative acknowledges:

The United States exported \$238 billion of environmental goods in 2015, and U.S. exports of environmental goods have been growing at an annual rate of

six percent since 2012. U.S. tariffs on environmental goods are already low; however, other countries charge tariffs as high as 50 percent on these goods.<sup>37</sup>

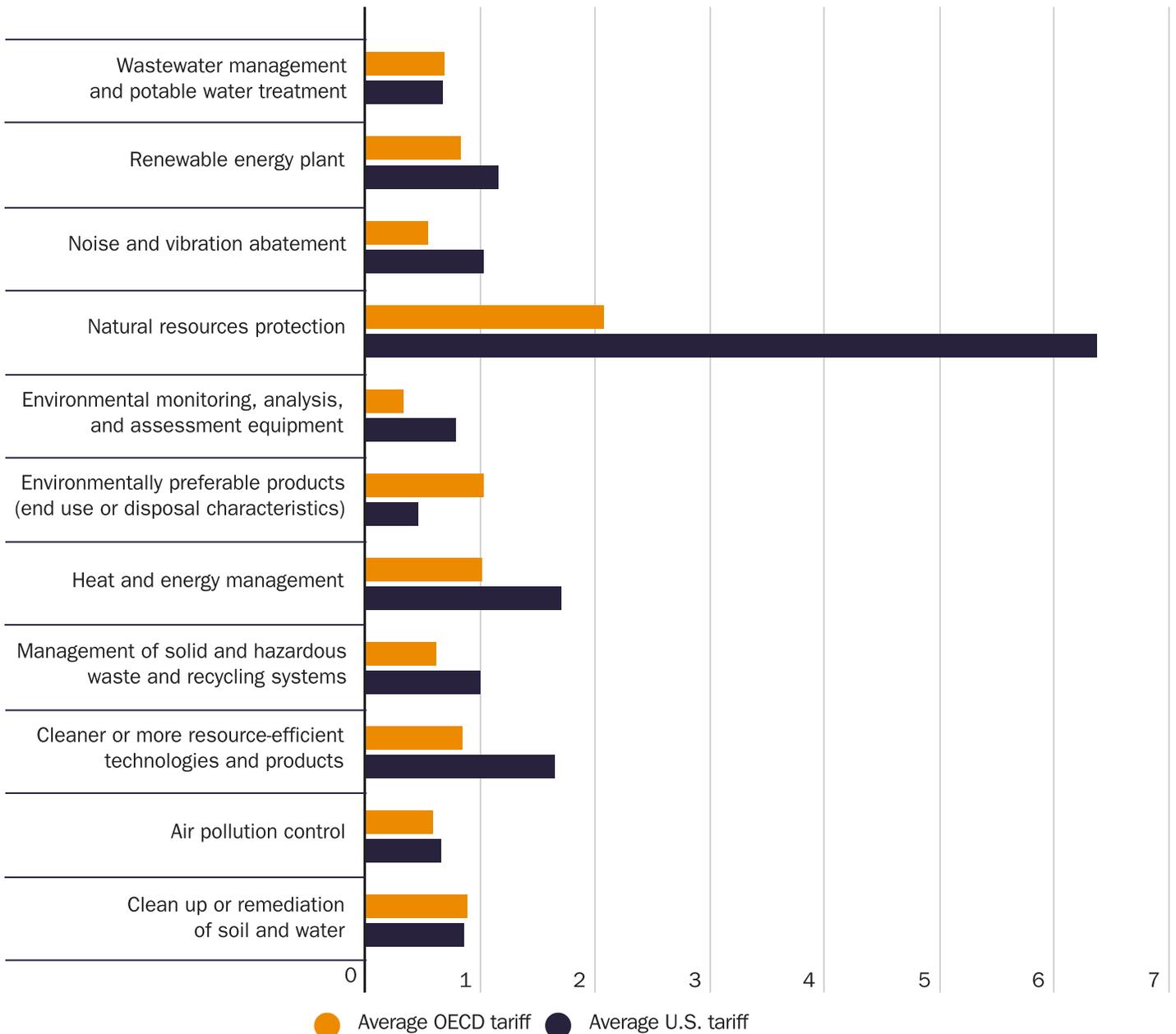
Of course, the United States maintains higher tariffs in some categories of environmental goods. Lowering tariffs globally will thus be of major benefit to this growing sector of the U.S. economy.

The United States is a global leader in environmental technology, accounting for one-quarter of the international market, contributing \$47.8 billion in goods and services in 2017, and employing 1.6 million people.<sup>38</sup> The elimination of trade barriers would only see this market grow. The OECD, which catalogs the import-weighted applied tariffs on 11 categories of environmental goods, shows that the United States has higher tariffs on some product categories compared to the average applied tariffs across OECD members (Figure 2). Even among developed countries, where these tariffs are generally low, the United States would still see gains from tariff reductions. Developing countries, by contrast, have much higher tariffs on these products, which some estimates suggest are nearly five times higher than the applied most-favored nation rate of Canada, the European Union, Japan, and the United States.<sup>39</sup> However, most developing countries are not participating in EGA negotiations.

American consumers also stand to gain considerably. Economists Kornel Mahlstein and Christine McDaniel examine the potential household savings from the conclusion of the EGA, using the Consumer Expenditure Survey. They find that tariff cuts would contribute approximately \$845 million per year to U.S. household savings, with lower-income households benefitting the most.<sup>40</sup> Table 1 provides an overview of their results on the estimated cost savings from the EGA, looking at specific substitutions for cheaper goods with higher energy efficiency ones.

In her first speech after assuming the role of U.S. Trade Representative, Ambassador Katherine Tai stated that “protecting our environment and addressing climate change are core pillars of the Administration’s Build Back Better agenda.” She also remarked that “the WTO is considered by many as an institution that not only has no solutions to offer on environmental concerns, but is part of the problem.”<sup>41</sup> This criticism of the WTO is simply incorrect. The WTO does not proffer solutions—it is an organization that provides a forum for its members to find solutions together by negotiating new rules on trade and by upholding those rules within the legal framework of the WTO-based multilateral trading system. The problem thus lies not with the institution, but

Figure 2

**Average U.S. and OECD tariffs on select categories of environmental goods, 2016**

Source: "Policy Indicators on Trade and the Environment: Tariffs on Environmental Goods," OECD.

Note: OECD = Organisation for Economic Co-operation and Development. This indicator reports the import-weighted applied tariffs on environmentally related goods as defined in the Combined List of Environmental Goods (CLEG) in percentage points for all countries. Latest available data are from 2016.

with its members, including the United States. The United States gave up on negotiating the EGA when Trump took office; Biden has an opportunity to reverse that decision and put trade and environment back on the agenda.

Supporting the EGA is fully in line with the current administration's policy agenda, which includes shifting the United States toward a 100 percent clean energy economy, boosting the climate resilience of U.S. infrastructure,

tackling climate change, and improving access to clean and safe drinking water.<sup>42</sup> The EGA can help America to achieve these goals. A 2018 poll by the Pew Research Center found that 57 percent of Americans see trade agreements as a "good thing" for the United States, and freeing trade in environmental goods and services can reduce the cost of adopting cleaner technology. Trade benefits Americans and it is not a zero-sum game.

Table 1

**Annual U.S. household savings from the Environmental Goods Agreement**

<b>Product</b>	<b>Annual household savings (millions of U.S. dollars)</b>
Bicycles	431
LED bulbs	320
Electricity meters	29
Alarms	23
Motion sensors	14
Solar control window film	10
Water meters	7
Automatic thermostats	5
Gas detectors	4
Gas meters	2

Source: Kornel Mahlstein and Christine McDaniel, *The Environmental Goods Agreement: How Would US Households Fare?* (Geneva: International Centre for Trade and Sustainable Development, 2017), p. 7. Authors' calculations.

**CONCLUSION**

Bringing the negotiations on environmental goods to a successful conclusion would do much to reestablish the United States as a leader at the nexus of trade and environment. It would increase the supply of green technologies

worldwide, lower the price of that technology, and boost the American economy. The administration should welcome calls for reengaging in environmental goods negotiations at the WTO and hasten trade negotiators to the negotiating table.

## NOTES

1. “Joint Working Party on Trade and Environment: Report on a Set of Policy Indicators on Trade and Environment,” OECD, February 12, 2019.
2. “Environmental Goods Agreement,” Office of the United States Trade Representative.
3. “Expressing the Sense of the House of Representatives That the United States Trade Representative Should Promptly Resume Negotiations to Conclude the Environmental Goods Agreement,” H. Res. 295, 117th Cong. (2021).
4. Letter to Ambassador Katherine Tai from the House Ways and Means Committee Republicans, April 22, 2021, <https://gop-waysandmeans.house.gov/wp-content/uploads/2021/04/210421-Letter-EGA-letter-final.pdf>.
5. “Biden: No New Trade Agreements until U.S. Has ‘Invested in Americans,’” *World Trade Online*, January 24, 2020.
6. Joseph R. Biden, “Remarks by President Biden in Address to a Joint Session of Congress” (speech given at the U.S. Capitol, April 29, 2021).
7. “Ministerial Declaration,” adopted November 14, 2001, Ministerial Conference, Fourth Session, Doha, Qatar, November 9–14, 2001, World Trade Organization, WT/MIN(01)/DEC/I, 20 November 2001, paragraph 31(iii).
8. Peter Ungphakorn, “India and South Africa Pour Cold Water on Alternative Approach to WTO Talks,” *Trade - Blog*, March 30, 2021.
9. “Environmental Goods Agreement,” World Trade Organization, [https://www.wto.org/english/tratop\\_e/envir\\_e/ega\\_e.htm](https://www.wto.org/english/tratop_e/envir_e/ega_e.htm).
10. “Annex C—APEC List of Environmental Goods,” Asia-Pacific Economic Cooperation, Vladivostok, Russia, September 8, 2012, [https://www.apec.org/Meeting-Papers/Leaders-Declarations/2012/2012\\_aelm/2012\\_aelm\\_annexC.aspx](https://www.apec.org/Meeting-Papers/Leaders-Declarations/2012/2012_aelm/2012_aelm_annexC.aspx).
11. “Environmental Goods Agreement: Report from the 16th Round of Negotiations,” European Commission, September 10, 2016, [https://trade.ec.europa.eu/doclib/docs/2016/october/tradoc\\_154996.pdf](https://trade.ec.europa.eu/doclib/docs/2016/october/tradoc_154996.pdf).
12. For a detailed negotiating history, see Global Affairs Canada, “WTO Environmental Goods Agreement (EGA),” December 14, 2016, <https://www.international.gc.ca/trade-agreements-accords-commerciaux/topics-domaines/env/plurilateral.aspx?lang=eng>.
13. “The APEC List of Environmental Goods,” Asia-Pacific Economic Cooperation Secretariat, November 2012.
14. “Joint Working Party on Trade and Environment: The Stringency of Environmental Regulations and Trade in Environmental Goods,” COM/TAD/ENV/JWPTE(2013)33/FINAL, OECD, November 19, 2014, Annex 1, 51.
15. This was the suggestion of the National Association of Manufacturers in the United States. See Matt Roessing, “Greed Is (an Environmental) Good,” *Sidebar* (blog), June 27, 2014.
16. Iana Dreyer, “Environmental Goods Agreement—Why Talks Faltered,” *Borderlex*, December 6, 2016.
17. Jaime de Melo and Jean-Marc Solleder, “Reviving the Environmental Goods Agreement: Why It Matters, Why It Is Stalled, and How to Move Forward.”
18. Maureen Hinman, “Green Goods Market Access Is Key to Biden’s Build Back Better Agenda,” Washington International Trade Association, March 11, 2021.
19. Hinman, “Green Goods Market Access Is Key to Biden’s Build Back Better Agenda.”
20. “Sources: China’s EGA Product Coverage Commitments Lagging,” *World Trade Online*, April 26, 2016.
21. “Leaked EGA Documents Reveal Differing U.S., China Tariff Phaseout Offers,” *World Trade Online*, April 27, 2016.
22. Mark Wu, “Why Developing Countries Won’t Negotiate: The Case of the WTO Environmental Goods Agreement,” *Trade, Law, and Development* 6, no. 1 (2014): 94.
23. “Sustainable Development Goal 9,” United Nations, Department of Economic and Social Affairs, <https://sdgs.un.org/goals/goal9>.
24. Hanna Bucher, Jane Drake-Brockman, Alexander Kasterine, and Mahesh Sugathan, “Trade in Environmental Goods and Services: Opportunities and Challenges,” International Trade Centre Technical Paper, 2014.

25. See James Bacchus, “Reviving the WTO: Five Priorities for Liberalization,” Cato Institute Policy Analysis no. 911, February 23, 2021.
26. “Joint Statement Regarding Trade in Environmental Goods,” January 24, 2014, World Economic Forum, Davos, Switzerland.
27. “Information Technology Agreement,” World Trade Organization, [https://www.wto.org/english/tratop\\_e/inftec\\_e/inftec\\_e.htm](https://www.wto.org/english/tratop_e/inftec_e/inftec_e.htm).
28. Aaron Cosbey, Soledad Aguilar, Melanie Ashton, and Stefano Ponte, *Environmental Goods and Services Negotiations at the WTO: Lessons from Multilateral Environmental Agreements and Ecolabels for Breaking the Impasse* (Winnipeg: International Institute for Sustainable Development, 2010), p. 57.
29. For greater details on this and other challenges relating to product classification, see Ronald Steenblik, “Liberalising Trade in ‘Environmental Goods’: Some Practical Considerations,” OECD Trade and Environment Working Paper no. 2005-5, December 16, 2005.
30. The WTO classification includes sewage services, refuse disposal services, sanitation and similar services, and other services (e.g., cleaning services of exhaust gases, nature and landscape protection, etc.).
31. Ronald Steenblik, Dominique Drouet, and George Stubbs, “Synergies between Trade in Environmental Services and Trade in Environmental Goods,” OECD Trade and Environment Working Paper no. 2005-1, July 19, 2005, p. 131.
32. See, in part for a slightly different view, Bernhard Pötter, “TTIP in Green: Free Trade for Ostensibly Eco-Goods,” *Green European Journal*, June 24, 2016.
33. Bucher et al., “Trade in Environmental Goods and Services: Opportunities and Challenges.”
34. Ronald Steenblik et al., “Synergies between Trade in Environmental Services and Trade in Environmental Goods,” p. 130.
35. “Communication from the United States: Environmental Services,” Council for Trade in Services, Special Session, World Trade Organization, S/CSS/W/25, December 18, 2000.
36. Steenblik et al., “Synergies between Trade in Environmental Services and Trade in Environmental Goods,” p. 149.
37. “Environmental Goods Agreement,” Office of the United States Trade Representative.
38. *2019 Top Markets Report: Environmental Technologies: a Market Assessment Tool for U.S. Exporters* (Washington: International Trade Administration, 2020).
39. *Trade that Benefits the Environment and Development: Opening Markets for Environmental Goods and Services* (Paris: OECD, 2005), p. 25.
40. Kornel Mahlstein and Christine McDaniel, *The Environmental Goods Agreement: How Would US Households Fare?* (Geneva: International Centre for Trade and Sustainable Development, 2017), p. vi.
41. Katherine Tai, “Remarks from Ambassador Katherine Tai on Trade Policy, the Environment and Climate Change,” Office of the United States Trade Representative, April 15, 2021.
42. Biden-Harris Campaign, “The Biden Plan for a Clean Energy Revolution and Environmental Justice,” <https://joebiden.com/climate-plan/>.