

# TRADE TOOLS *for* CLIMATE ACTION

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# INTRODUCTION ›

For decades, the world has witnessed explosive growth in both the volume of international trade and the level of emissions of greenhouse gases (GHGs). For many, these two trends have always been linked, with international trade's rise contributing significantly to climate change, as the production and transportation of an ever-increasing number of goods requires a parallel increase in the burning of fossil fuels. More recently, however, many in the international trade and climate change communities have begun examining the flip-side of that coin—the ability for trade and trade policy to help solve the climate crisis. This report is focused on that flip-side and seeks to examine in greater detail some of the trade tools that could be employed in the fight against climate change.

The need to employ trade tools is underscored by global—yet unevenly distributed—trade outputs and GHG emissions. In recent years, China has surpassed the United States as the largest emitter of GHGs, accounting for one-quarter of total emissions, long after becoming the world's largest exporter of goods. North America (largely the United States) still accounts for one-third of global emissions and the European Union does not trail far behind. Not surprisingly, China, the United States, and the EU are also the leading producers and exporters of traded goods, capturing more than two-thirds of global gross domestic product. The World Trade Organization (WTO) notes that the production and transport of both imports and exports contribute 20-30% of GHG emissions.<sup>1</sup> Furthermore, Our World in Data explains that there is an East-West divide in carbon dioxide (CO<sub>2</sub>) emissions embedded in trade, with Asia and Eastern Europe as net exporters of emissions intensive goods, and Western Europe, the Americas, and some parts of Africa as net importers.<sup>2</sup>

Governments, international organizations, and the climate community have taken notice and have begun to take action to address the flip side of these dual trends, looking for ways that trade can be used as a tool to combat climate change. These trade-related climate measures include policies such as carbon border adjustment mechanisms (CBAMs), green industrial policies, initiatives to decarbonize supply chains, novel ideas to promote the transfer and adoption of green technology, and “buy green” procurement policies.

The urgency of the climate crisis has changed the tone of discussion but also brought a tremendous amount of creativity to bear on how we can advance our climate objectives together, or through more selective groupings of countries. The persistent challenge has been joining efforts at the nexus of trade and climate when these two spaces are organizationally distinct. International trade rules are developed at the WTO, and its rulebook is shockingly out of date. There is considerable resistance to shifting the WTO focus to non-traditional trade issues, and building consensus for change among 166 WTO members is increasingly difficult. In contrast, the rules on climate change have evolved over time, from its inception in the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, and the Paris Agreement. In each meeting of the Conference of the Parties (COP) to the UNFCCC, new understandings are reached, and pledges are made. Unlike the WTO system, climate change law is more fluid but lacks a more enforceable rulebook. Both have their advantages, and lessons to learn from each other.

Given the size of its economy, the volume of its trade and the extent of its current and accumulated GHG emissions, the United States is a critical actor in

<sup>1</sup> World Trade Organization. (2021, November 9). *The carbon content of international trade* (Information brief no. 4). Available at [https://www.wto.org/english/news\\_e/news21\\_e/clim\\_03nov21-4\\_e.pdf](https://www.wto.org/english/news_e/news21_e/clim_03nov21-4_e.pdf).

<sup>2</sup> Ritchie, H. (2019, October 7). *How do CO<sub>2</sub> emissions compare when we adjust for trade? Which countries are net importers and exporters of emissions? How much CO<sub>2</sub> is 'off shored'?* Our World in Data. Available at <https://ourworldindata.org/consumption-based-co2>.

this space. It has the power to define not only the scope and scale of its own trade-related climate actions, but to signal to the rest of the world the types of trade tools that should be prioritized. It is for this reason that we launched the **Trade Tools for Climate Action** project in 2024, setting out to clarify and prioritize trade-related climate policies that the United States could pursue to align its trade and climate agendas and support the transition toward a net-zero world. We organized workshops on seven of the 12 topics we saw as promising avenues for climate action: distinguishing tariffs on “dirty” vs. “green” imports; greening government procurement; fostering trade in environmental goods; assessing the implications of increased green subsidies; best design options for border carbon adjustments; trade restrictions to reduce plastics pollution; and limiting deterrence to shuttering coal-fired power from investor-state dispute settlement (ISDS) cases.

In deciding which issues would warrant additional research and exploration, we were guided by three core criteria:

- Would using the trade tool have a measurable impact on climate mitigation or adaptation?
- Is the trade tool feasible, at both a practical and technical level, measured by the ease and cost of implementation, the amount of regulatory reform required to implement it, the timing involved, and the consistency of the trade measure with international trade law?
- Can the trade tool be developed in such a way so as to garner bipartisan political support?

While recent political change in Washington poses significant challenges to the climate agenda, much activity has already been underway, and the momentum will not be easy to reverse. In addition, the priority that President Trump is placing on changes to trade policy provides an opportunity to shape those changes so that they can meet both the goal of furthering an America First trade agenda and the goal of using trade tools in the fight against climate change. Done right, revised trade policies can further the trade and climate agenda through focusing on where the United States can best leverage its strengths, where trade tools can help with the development and dissemination of American-made green technology, and where the U.S. can work with key trade partners to develop stronger and more resilient supply chains for the goods and services that support de-carbonization.

Critically, whether we pursue green subsidies, loosely defined, or whether we establish new standards for measuring the carbon content of certain goods, or develop new rules for trade in green goods, there is a value in working with our trading partners to establish benchmarks, guardrails, and best practices—not just for avoiding trade frictions, but to ensure that the measures are in fact tailored to meet the stated objectives. At home, and abroad, we are seeing a flurry of actions to tackle climate change. The task of coordination is not simple, and in some cases is further complicated by different priorities and political challenges. Our efforts for this project made important headway in wading through these issues and identifying a set of trade tools that have the potential to enhance U.S. leadership in climate action for decades to come.



## THREE PILLARS FOR ACTION ›

**T**rade Tools for Climate Action set out to identify a set of trade tools that could be pursued to further U.S. climate goals and contribute to a net-zero future. Developing our tool kit involved:

- **Research** by our team to assemble detailed research briefs and data on each potential trade tool to guide our discussions;
- **Workshops** with a diverse range of experts from the trade and climate communities that provided a deep dive into the technical, practical, and legal issues raised by each individual trade tool; and
- **Building a Research Network** through meetings with experts in Washington and around the world to discuss our research and receive feedback.

Our research team developed detailed policy background papers in advance of each workshop (attached at the end of this Report). Additionally, our team also distributed short memos outlining the specific climate problem we wanted to solve, the international trade dimension of that problem, and possible solutions using insights from previous or new attempts by both the trade and climate communities to tackle it.

Participants in each workshop were asked to reflect on a predetermined set of questions that would guide the discussion and to offer their thoughts on whether the tool we were exploring would meet the three criteria noted above. These interactions not only produced a large amount of written feedback and ideas but also helped us create an active research network that would continue the conversation about these topics in the months ahead. In total, our workshops brought together 57 participants from 13 countries and included government officials, practitioners, NGOs, academics, and industry associations (see the Appendix to this Report for a list of participants).

Our assessment of the various tools was organized by whether each could help aid the achievement of one of three specific goals: 1) incentivizing decarbonization, 2) spreading green tech innovation, and 3) greening the trade rules.

Incentivizing Decarbonization	Spreading Green Tech Innovation	Greening Trade Rules
<ul style="list-style-type: none"><li>• Border carbon adjustments</li><li>• Differentiated tariffs based on the amount of GHGs embedded in the product</li><li>• Green government procurement</li></ul>	<ul style="list-style-type: none"><li>• Trade in environmental goods</li><li>• Voluntary licensing (for this we began background research, but plan to host a workshop in 2025)</li></ul>	<ul style="list-style-type: none"><li>• Green subsidies</li><li>• Phasing out certain plastics</li><li>• ISDS reform (with a focus on coal-fired power)</li></ul>

In the next phase of the project, we aim to refine our original research into more detailed policy briefs, to develop a series of blog posts about them, and to take our findings to Congress.



## THE TOOLS ›



This section details the discussions at our project workshops and is organized into the three broad climate action targets we identified: incentivizing decarbonization, spreading green tech innovation, and greening trade rules.

## INCENTIVIZING DECARBONIZATION

### 1. U.S. Carbon Border Adjustment Mechanism

CBAMs seek to reduce GHG emissions by imposing fees on imports based on their carbon (or more accurately, their GHG or CO<sub>2</sub> equivalent) content. These mechanisms have emerged as a policy tool to incentivize producers to adopt cleaner technologies in order to avoid higher border fees. CBAMs also aim to address carbon leakage, which occurs when companies shift production to countries with weaker climate regulations in order to avoid more stringent or expensive decarbonization measures in their home market. Following the adoption of the European Union's CBAM (EU CBAM), numerous border carbon adjustment proposals have been under consideration in other markets and various legislative proposals for border adjustments have been introduced in the U.S. Congress. These proposed policies differ in their design, including with respect to the scope, operation, and approach to measuring embedded emissions, presenting trade-offs and benefits.

#### The Workshop

This workshop explored the design choices embedded in the different CBAM proposals (including the EU CBAM), to understand what the policy should be in the United States. Key questions included: (i) which products, emissions, and GHGs should be covered; (ii) how the pricing mechanism should be implemented—such as how fees should be collected, how revenue should be utilized, whether carbon tariffs should be paired with equivalent domestic measures, and whether differences between the sources of imports should be considered; and (iii) what methodology should be used to measure embedded GHGs, including the information importers should provide and whether default values should be used. These discussions were framed around the overarching goal of identifying design choices that are both effective in reducing emissions and politically and administratively feasible.

#### Lessons Learned

Participants emphasized the **EU CBAM's role in incentivizing other countries to adopt carbon pricing instruments**, thereby fostering momentum for the adoption of effective climate policies. For instance, since 2019, at least 44 instances of countries considering carbon pricing mechanisms have been recorded, representing 37 different nations.<sup>3</sup> Notably, 17 of the G20 countries—except Saudi Arabia, Russia, and the United States—have implemented or are considering implementing some form of carbon pricing, creating a potential foundation for global alignment.<sup>4</sup> Therefore, the effectiveness of border carbon adjustments needs to be evaluated based on its ability to drive countries to adopt price-based climate policies that would accelerate global decarbonization.

With respect to the question of which products and gases should be covered, participants emphasized the need to consider trade-offs. For example, while a broader scope would increase the trade tool's impact, it would also likely lead to higher administrative costs for both the government and industry. Participants suggested starting with a limited set of gases—with carbon dioxide,

3 Clausing, K., Elkerbout, M., Nehrkorn, K., & Wolfram, C. (2024, October). *How Carbon Border Adjustments Might Drive Global Climate Policy Momentum* [Report 24-20]. Resources for the Future. Available at [https://media.rff.org/documents/Report\\_24-20.pdf](https://media.rff.org/documents/Report_24-20.pdf).

4 World Bank, *State and Trends of Carbon Pricing*, 21 (2024). Available at <https://openknowledge.worldbank.org/server/api/core/bitstreams/253e6cdd-9631-4db2-8cc5-1d013956de15/content>.

methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons being the most prominent—as well as a core set of energy-intensive, trade-exposed goods. Over time, the list could be expanded.

With respect to the question of how the pricing mechanism should be implemented and whether carbon tariffs should be paired with equivalent domestic measures, **participants noted that a carbon tariff without a corresponding domestic carbon tax likely fails as a reliable and substantial revenue source due to its volatility and limited scale.** For example, the EU CBAM is estimated to generate approximately 2 billion euros per year, compared to the 50 billion euros raised annually through the EU Emissions Trading System.<sup>5</sup> Furthermore, standalone carbon tariffs risk transferring rents from developing to advanced economies, potentially creating an artificial competitive advantage for U.S. companies in high-emitting industries. This could undermine incentives for these companies to decarbonize and have adverse geopolitical consequences, including trade disputes if the tariffs are perceived as discriminatory or unfairly targeting other countries.

While participants generally agreed that **carbon tariffs should be benchmarked against specific criteria such as emission performance standards for domestic industries**, opinions were divided on whether a domestic carbon price is essential. In the absence of a carbon price, it was suggested that these benchmarks could be based on regulatory measures or domestic costs.<sup>6</sup>

One of the legislative proposals, Senator Cassidy's Foreign Pollution Fee Act (FPFA), would charge a fee for imported products that exceed by 10% or more the "pollution intensity" of similar goods made in the United States, using an industry average of U.S. emissions. Most participants viewed this approach as a reshoring policy aimed at incentivizing the return of manufacturing and industrial production to the United States rather than a climate change measure or one aimed at domestic decarbonization. Participants further noted that even though the United States does not yet have a carbon pricing mechanism, it has implemented a methane tax through the Inflation Reduction Act, requiring oil and gas producers to pay a fee for excess methane emissions—demonstrating some support for emissions taxation.<sup>7</sup> Additionally, there appears to be interest in an equivalent border carbon adjustment, as evidenced by the recent introduction of the Methane Border Adjustment Mechanism Act (Rep. Julia Brownley D-CA), a bill that proposes to extend the domestic methane fee to foreign producers.<sup>8</sup>

With respect to the question of what methodology should be used to measure embedded GHGs, the participants agreed that one of the most difficult aspects of CBAMs is the methodology employed to measure the amount of GHGs embedded in any given traded good. Most of the proposed CBAM systems vary in terms of which green-house gases are required to be included in the calcula-

5 For 2023 revenues, see European Commission, Auctioning of Allowances, Available at [https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/auctioning-allowances\\_en](https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/auctioning-allowances_en).

6 See Goodman, S. M. (2022). *A Commodity-Specific Border Carbon Adjustment Framework Based on the Costs of Decarbonizing without a Carbon Price* [Working Paper No. ID-087]. U.S. International Trade Commission. Available at [https://www.usitc.gov/publications/332/working\\_papers/border\\_carbon\\_adjustments\\_final.pdf](https://www.usitc.gov/publications/332/working_papers/border_carbon_adjustments_final.pdf).

7 World Resources Institute. *U.S. methane fee holds oil and gas producers accountable for pollution* [Statement]. Available at <https://www.wri.org/news/statement-us-methane-fee-holds-oil-and-gas-producers-accountable-pollution>.

8 Brownley, J. (2024, July 9). *Brownley introduces legislation to reduce global methane emissions* [Press Release]. U.S. House of Representatives. Available at <https://juliabrownley.house.gov/brownley-introduces-legislation-to-reduce-global-methane-emissions/>; See also Clausing, K. A., Garicano, L., & Wolfram, C. (2023, June). *How an International Agreement on Methane Emissions Can Pave the Way for Enhanced Global Cooperation on Climate Change* [Policy Brief 23-7]. Peterson Institute for International Economics. Available at <https://www.piie.com/publications/policy-briefs/how-international-agreement-methane-emissions-can-pave-way-enhanced-global>.

tion, whether GHGs from energy sources (Scope 2) or input materials (Scope 3) must be included, how GHGs from facilities producing a variety of products are allocated to the internationally-traded product, and whether and how any calculations are verified. A derivative of this issue is the question of what to do if a foreign producer cannot determine the amount of GHGs in its product or cannot do so to the satisfaction of the country imposing the CBAM. The EU CBAM and many of the U.S. legislative proposal address this problem through the creation of default values that can be applied in the absence of product-specific verifiable data. But the methodology for the calculation of such default values raises questions in and of itself, particularly with regard to international rules prohibiting discrimination against imported goods.

Most participants acknowledged that **allowing declarants to report using default values is crucial for ensuring administrative feasibility**. They noted that determining the appropriate level for default values involves tradeoffs that should reflect predefined policy priorities, such as encouraging emissions reporting, promoting industrial decarbonization, incentivizing climate action in other countries, and deterring free-riding.<sup>9</sup> While some participants supported setting default values on a country-by-country basis—proposing higher values for countries with unreliable data—others raised concerns about the potential risks of this approach. These include undermining climate objectives by inadvertently benefiting high-emitting companies due to variability across firms, and facilitating resource shuffling, where cleaner production is redirected to stricter jurisdictions while dirtier production remains in less-regulated regions.<sup>10</sup>

One proposed solution involves **combining country-wide default values with a “prove-out” mechanism**, allowing companies to demonstrate lower emissions through robust monitoring, reporting, and verification systems.<sup>11</sup> However, this approach could be resource-intensive and may disadvantage smaller companies or those in developing countries. Overall, participants agreed on the need to avoid arbitrary discrimination in the application of default values. There was also consensus in ensuring that default values evolve over time to reflect decreasing carbon intensity as industries decarbonize.

### Recommendations

- Develop a comprehensive mapping of the various policy objectives of border carbon adjustment policies (e.g., promoting industry decarbonization, enhancing competitiveness, reducing carbon leakage, incentivizing climate action in other countries) against specific CBAM design options to aid in determining how best to align those choices with U.S. priorities.
- Outline the guiding principles that would allow the United States to design border carbon adjustment policies that sufficiently discourage trade in high-GHG products, meaningfully reduce emissions, and operate within a framework capable of generating adequate revenue. While domestic carbon taxes hold the primary revenue-raising potential, border carbon adjustments could play an important role in creating pathways toward the implementation of domestic carbon pricing systems. As such, it is important to explore framing these principles within a cohesive, long-term strategy.
- Define the optimal scope of a potential U.S. CBAM, balancing climate impact with the need for administrative and political feasibility. This includes

9 See Goodman, *supra* note 6.

10 Tamba, M., Larsen, K., & Pitt, H. (2024, June 11). *Climate Action and Competitiveness: The Rise of Border Carbon Adjustments*. Rhodium Group. Available at <https://rhg.com/research/climate-action-and-competitiveness-the-rise-of-border-carbon-adjustments/>.

11 Gailhofer, P. & Graichen, V. (2023). *Monitoring, Reporting and Verification in a Carbon Border Adjustment Mechanism: Which Rules and Standards for Calculating and Certifying Product-Related Emissions?* [Report No. 154/2023]. German Environment Agency. Available at [https://www.umwelt-bundesamt.de/sites/default/files/medien/11850/publikationen/154\\_2023\\_texte\\_monitoring\\_reporting\\_and\\_verification.pdf](https://www.umwelt-bundesamt.de/sites/default/files/medien/11850/publikationen/154_2023_texte_monitoring_reporting_and_verification.pdf).

consideration of the implications of a phased implementation approach, taking cues from the EU CBAM, and evaluating which sectors should be prioritized for inclusion in the initial rollout. This analysis could be informed by data and findings from the successful implementation of the PROVE IT Act, particularly in identifying high-impact sectors and designing a framework that aligns with U.S. economic and environmental priorities.

- Support the passage of the PROVE IT Act (Sens. Chris Coons D-DE, Kevin Cramer R-ND). This bipartisan legislation would direct the Department of Energy to collect data on average emissions intensity in select products in the United States and in other countries. This would help inform the development of a border carbon adjustment or other policies in the future, but in the immediate term, provide valuable information on emissions in the United States and abroad. (Products include aluminum, steel, cement, crude oil, fertilizer, natural gas, plastics, etc.)
- Examine how default values could be structured to avoid discouraging decarbonization efforts. This includes examining whether default values should be permanent and applied at the country or firm level.

## 2. Differentiated Tariffs — Leveraging Tariff Water

Because emissions from tradable goods account for 20-30% of global GHG emissions, one potential strategy to mitigate trade's impact on the climate is to reduce trade in and reliance on goods with high embedded emissions by raising tariffs on these products. However, countries have committed as one aspect of membership in the WTO not to raise their tariffs above the rates that are bound in their tariff schedules, placing limits on many countries' abilities to increase tariffs on high-GHG goods. Many developing countries, however, have a large gap between their bound tariff rates and the rates they actually apply at the border—with this gap between bound and applied rates often referred to as tariff water. The existence of this tariff water offers an opportunity to increase the tariff on GHG-intensive goods without breaking tariff bindings or international trade rules. The concept involves subdividing individual tariff lines, with high-GHG versions of a given product automatically falling under the subdivision with higher tariff rates and the lower-GHG version of the same product falling under the subdivision of the tariff line with a lower tariff rate. Splitting up individual tariff lines based on GHG levels could provide countries unable to implement a CBAM with a simpler alternative. Leveraging tariff water could reduce the market share of emissions-intensive goods, while adhering to trade rules and generating additional revenue for countries.

### The Workshop

This workshop examined the potential of introducing differentiated tariffs based on embedded emissions and utilizing tariff water to discourage trade in GHG-intensive goods. Participants were asked to discuss specific questions, including: (i) which goods should be targeted for higher tariffs based on embedded emissions (ii) how distinctions could be introduced into tariff schedules, including whether there is any precedent for drawing distinctions based on the process by which goods are made rather than common tariff nomenclature which focuses on a description of the product itself; and (iii) the potential of tariff water to disincentivize imports of GHG-intensive goods, particularly in countries with the largest gaps between bound and applied tariff rates.

### Lessons Learned

**Participants emphasized that the proposed trade tool would likely only be applicable in developing countries, as tariff water is minimal in developed countries.** Participants recognized that countries without tariff water could differentiate their tariff schedules without changing any tariff rates if they

wanted to collect import data broken down by the GHG intensity of imports. In addition, they noted that differentiated tariffs could also be used to reduce the applied tariffs on low-emissions goods. But they noted that only a limited number of countries with the appropriate tariff structures and administrative capacity could effectively implement measures that raised tariff rates on high GHG goods. An additional limitation on countries altering their tariff schedules based on GHG levels is participation in customs unions or free-trade agreements, as such arrangements generally require that all parties to the agreement adopt a common external tariff. Therefore, countries wishing to adopt a differentiated tariff schedule would need their trade-agreement partners to agree or to do the same.<sup>12</sup>

Another participant suggested categorizing countries based on their levels of tariff water: “wet” (countries with high bound tariffs and lower applied rates, e.g., Brazil, Mexico, India, Indonesia, Pakistan, Argentina), “humid” (countries with moderate tariff water, e.g., China), and “dry” (low tariff water, e.g., the United States) countries.<sup>13</sup> A critical challenge is that the “wettest” countries are often not significant importers of GHG-intensive goods, which are primarily produced in “wet” or “humid” countries and exported to “dry” countries. For instance, countries like Brazil, India, and Indonesia are major exporters of iron and steel with high embedded emissions, but not significant importers.<sup>14</sup> This limits the potential of tariff water to achieve meaningful climate impacts in those countries and risks becoming simply protectionist measures.

Participants also expressed concerns about the significant administrative burden the tool would place on customs authorities, especially for commodities like steel, which span numerous tariff lines. Developing countries, which often possess the most tariff water, may lack the institutional capacity to effectively implement sophisticated differentiated tariffs. A major challenge here is the verification of embedded emissions data, given the wide variety of existing programs for carbon certification, each differing in measurement boundaries, data sources, scope definitions, and reporting schedules. One participant proposed that independent organizations, paid for by tariff revenues, could oversee data verification and assist customs officials, relying on inputs from initiatives like the PROVE IT Act or the E-liability Institute’s carbon accounting system.<sup>15</sup>

Furthermore, while participants acknowledged that distinctions based on process and production methods exist within the Harmonized System of Tariffs (e.g., fish preparation methods and hand-painted artworks),<sup>16</sup> some questioned the practicality of creating GHG-based tariff classifications. They also debated how far upstream and downstream the trade tool should extend, highlighting the complexity of its effective implementation.

**Participants were generally critical about the tool’s overall climate impact,** noting potential risks such as carbon shuffling, which could undermine GHG reduction efforts. For instance, the tool could inadvertently reward high-emission producers in developing countries if the higher tariffs on imports shielded

12 Moreira, M. M. (2024, July 12). *Trade tools for climate action: workshop differential tariffs: leveraging tariff water* [Workshop brief] at 2.

13 Gresser, E. (2024, July 12). *Tariff “water,” trade, and climate change* [Workshop brief] at 2.

14 Butscher, E. & Camiña, M. A. *Trade tools for climate action: list of ghg-intensive trade-exposed products*. [Workshop background material].

15 Adler, A. Should there be multiple gradations for differing levels of GHGs embedded in goods? Should the tariff increases be implemented gradually or in a single step to minimize economic disruption and trade friction? [Workshop brief] at 2; <https://e-liability.institute/>

16 Sanches, A. L. Can the EU’s “default values” be used to draft the tariff nomenclature required to impose differential tariffs? Have there been instances where tariffs differentiate based on the process by which goods are made, and if so, what are some notable examples? [Workshop brief] at 2.



them from innovation-driving import competition, thus discouraging decarbonization. Furthermore, applying the tool in wet countries could result in trade diversion, substituting dirtier imports from other sources rather than reducing emissions.<sup>17</sup> Additionally, raising tariffs on goods with a large carbon footprint might encourage local production, which is not necessarily more GHG-efficient, potentially increasing emissions intensity.<sup>18</sup> One participant drew insights from general equilibrium models to estimate the tool's emissions reduction potential in all sectors and found the impact in developing countries to be small, achieving at best a 2-3% total reduction in GHG emissions, compared to a 25-100% reduction under a domestic carbon tax scenario.<sup>19</sup> When asked whether this trade tool should be pursued, a majority of workshop participants expressed reservations, citing its limited potential for meaningful climate impact and the significant challenges associated with its implementation.

### Recommendations

- Assess the feasibility of repurposing this trade tool to introduce differentiated tariff tiers in countries' tariff schedules based on the GHG intensity of goods, irrespective of available tariff water. This approach would involve substantive revisions to tariff classifications, with products recategorized based on various GHG-intensity levels. This assessment would require an evaluation of the most appropriate GHG-intensity benchmark to inform the differentiations in tariff schedules per good, considering options such as national averages, universal baselines, scientific methods, or other relevant frameworks.
- Evaluate the administrative and political feasibility of implementing and verifying this repurposed tool, focusing on how customs officials could apply and enforce emissions-based tariffs using available data, as well as exploring mechanisms for modifying and renegotiating bound tariffs to accommodate the proposed changes.

### 3. Green Procurement

Government procurement plays a pivotal role in incentivizing goods that support climate change mitigation and adaptation efforts (discussed below), as governments are major purchasers in the economy and can drive market opportunities for low-emission industries. However, effective green government procurement policies require further development.<sup>20</sup> To address this, several policies could be explored, including: (i) updating federal procurement practices that take account of trade opportunities in green procurement; (ii) fostering global coordination of "buy green" practices; and (iii) encouraging governments to develop minimum sustainable procurement requirements.

### The Workshop

For this workshop we combined trade tools primarily aimed at promoting trade in goods destined for the renewable energy sector or other decarbonization sectors with those geared at fostering green tech innovation, recognizing that effectively identifying which goods to target (environmental goods) and determining how to promote them through government-driven demand are overlapping efforts that reinforce one another. The workshop's discussion on environmental goods is detailed further below in the section addressing green

<sup>17</sup> See Gresser, *supra* note 13 at 3.

<sup>18</sup> See Moreira, *supra* note 12 at 2-3.

<sup>19</sup> *Id.*

<sup>20</sup> World Trade Organization (2022). *World Trade Report 2022: The Contribution of Trade in Environmental Goods and Services*, Chapter F. Available at [https://www.wto.org/english/res\\_e/booksp\\_e/wtr22\\_e/wtr22\\_ch6\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/wtr22_e/wtr22_ch6_e.pdf); Malouche, M. *Trade in environmental goods and government procurement* [Workshop brief] at 1.

tech innovation.<sup>21</sup> With respect to decarbonization through government-led demand, the workshop focused on two key questions: (i) what sustainable procurement policies countries should implement; and (ii) how green procurement strategies should be rolled out.

### Lessons Learned

**Participants suggested that all stages of procurement (planning, procurement, and contract award) should be considered.** They emphasized that governments typically issue tenders for entire projects, such as constructing a road. This provides an opportunity to apply green procurement to the entire lifecycle of the project, rather than focusing only on the procured good itself (e.g., “green” steel). In the EU, for instance, the “green” requirements target the outcomes of the entire project (e.g., the completed building rather than just the cement used).<sup>22</sup> Industries favor such outcome-based specifications, as they allow for innovation and competition beyond price, enabling companies to differentiate themselves based on their ability to minimize environmental impacts.

Participants also expressed concerns about the complexity arising from the varying approaches adopted by countries, and emphasized the need for transparency and harmonized practices. They cited the EU-US joint catalogue on best practices for green public procurement as an example of how sharing best information organized around each stage of the procurement process could reduce frictions and foster greater uptake of “buy green” policies.<sup>23</sup> They also noted that developed countries’ green strategies could serve as an example for other countries, and that the WTO could play a valuable role in facilitating discussions and promoting transparency in this area, due to the fact that it already has procurement rules under the Government Procurement Agreement, which includes robust monitoring and reporting requirements.<sup>24</sup>

Another aspect participants highlighted was that the application of green procurement criteria is often voluntary. To mainstream green procurement, some suggested not only that procurement officials should be sensitized to climate issues, but also that criteria should eventually become mandatory to ensure consistent and widespread adoption. However, participants also pointed to the challenge of governments’ budgetary constraints, noting that a full shift to green procurement could jeopardize projects. For example, in Denmark, a commitment to carbon-neutral construction led to road projects being cut due to the prohibitive costs of meeting environmental goals. In this regard, a more feasible first step toward broader adoption of green procurement is to require environmental impact assessments. It is also important to remember that in considering procurement projects, governments must balance GHG reduction

21 See *infra* 16-18.

22 European Commission, Directorate-General for Environment. (2016). *Buying Green! A Handbook on Green Public Procurement* (3rd ed.). Available at <https://op.europa.eu/en/publication-detail/-/publication/8c2da441-f63c-11e5-8529-01aa75ed71a1/language-en>.

23 U.S.-EU Trade and Technology Council, Working Group on Climate and Clean Tech. (2024, April 5). *Joint U.S.-EU Catalogue of Best Practices on Green Public Procurement*. Available at [https://ustr.gov/sites/default/files/EU-US%20TTC6\\_Annex\\_GPP%20Best%20Practices.pdf](https://ustr.gov/sites/default/files/EU-US%20TTC6_Annex_GPP%20Best%20Practices.pdf). See also Grier, J. H. (2024, August 22). *WTO sustainable procurement work program* [Workshop brief] at 2 (suggesting that expanding the EU-US Joint Catalogue to incorporate best practices undertaken by the other 20 GPA parties could provide a beneficial resource for non-GPA parties). Participants also referenced UNIDO’s Industrial Deep Decarbonization Initiative, which is trying to come up with a harmonized common definition of “green steel” and “green cement” specifically for public procurement around the world. See United Nations Industrial Development Organization. *Industrial Deep Decarbonization Initiative (IDDI): An initiative of the Clean Energy Ministerial*. Available at <https://www.unido.org/iddi>.

24 Participants observed that the World Trade Organization’s Government Procurement Agreement (GPA) does not impede green procurement requirements, as long as the criteria used is transparent and objective. In fact, the GPA refers to environmental considerations in technical specifications and evaluation criteria. See Lester, S. *Bringing the trade and environment debate to government procurement* [Workshop brief] at 1-2.

and climate objectives with other procurement priorities such as job creation, domestic production, and delivering the best value for money to consumers.

### Recommendations

- Evaluate how governments can integrate “green” considerations at each stage of the procurement process. A point of departure could be identifying the role labels, certificates, and environmental product declarations play as tools for integrating these considerations and assessing their effectiveness in driving greener purchasing outcomes.
- Examine the feasibility of coordinating countries’ procurement strategies at the bilateral, plurilateral, or multilateral level and identify what would be the appropriate forum or mechanism for such coordination. The EU-U.S. joint green procurement catalog could be worth exploring, in particular, to evaluate its potential benefits and limitations for replication or expansion to other regions.
- Assess the viability of mandating green procurement criteria in light of the need to balance other policy priorities, such as job creation and cost-effectiveness.

## SPREADING GREEN TECH INNOVATION

### 4. Trade in Environmental Goods

Environmental goods are crucial for moving towards a net-zero economy. However, barriers to trade in these goods abound.<sup>25</sup> Addressing this challenge could involve: (i) establishing standards and guidelines for defining environmental goods internationally, including through a reference list; and (ii) negotiating a plurilateral or multilateral agreement to enhance market access for environmental goods.

#### The Workshop

The workshop brought together discussions on trade in environmental goods and strategies for greening government procurement, as outlined above. On the topic of environmental goods, participants focused on two central questions: (i) which goods should be targeted; and (ii) what approaches should guide decisionmakers in developed and/or developing countries in determining when enhanced market access should be provided.

#### Lessons Learned

##### Participants emphasized a “list approach” for defining environmental goods.

This approach was considered familiar, and thus useful, although it was noted that lists used for tariff purposes are outdated. Recently, there have been efforts to update these lists, with Asia-Pacific Economic Cooperation countries making public a new version,<sup>26</sup> and New Zealand, Switzerland, Norway, Costa Rica, and Iceland concluding negotiations on the Agreement on Climate Change, Trade and Sustainability, covering 300 environmental goods.<sup>27</sup>

To define the scope of the list and ensure that it maintains a robust connection to environmental objectives, participants proposed several criteria. Some suggested that setting a threshold for embedded emissions could serve as a useful

25 See World Trade Organization, *supra* note 20.

26 Asia-Pacific Economic Cooperation. (2022). *APEC List of Environmental Goods* (HS 2022). Available at <https://www.apec.org/docs/default-source/groups/mag/apec-list-of-environmental-goods-in-hs-2022-for-reference.pdf>.

27 New Zealand Ministry of Foreign Affairs and Trade. (2024, November 15). *The Agreement on Climate Change, Trade and Sustainability*. Available at <https://www.mfat.govt.nz/en/trade/free-trade-agreements/free-trade-agreements-concluded-but-not-in-force/agreement-on-climate-change-trade-and-sustainability-accts/accts-text-and-resources>; Participants flagged this list (see Naas, P. Untitled [Workshop brief] at 2), though some expressed that it might not be acceptable to the United States.



and equitable benchmark.<sup>28</sup> However, others cautioned that relying only on emissions intensity might lead to disregarding certain technologies. For example, many environmental agreements include water technology, which is not directly tied to GHG emissions. As a result, participants urged that other environmental benefits also be considered.

Furthermore, participants proposed to factor in the efficacy of lower tariffs given the substitutability of goods,<sup>29</sup> preferences reflected in domestic legislation and regulation,<sup>30</sup> and the use of additional production specifications in tariff schedules such as “ex-outs” for dual use goods.<sup>31</sup> Participants also suggested starting with a limited number of goods essential for decarbonization and then expanding the list over time.

**Participants strongly recommended that adaptation priorities be considered alongside mitigation needs, reflecting the diverse challenges that countries face in addressing the climate crisis.** They highlighted that climate change adaptation is a pressing issue for developing countries. Another point raised was that developing countries experience varying levels of exposure and vulnerability to climate impacts and, therefore, have different adaptation priorities. For instance, while one country may be concerned about addressing drought, another may focus on flood management. Participants similarly noted that climate mitigation needs vary across countries. Additionally, some argued that reducing trade could contribute to climate mitigation. For instance, in Barbados, increasing imports of electric vehicles might not effectively accelerate decarbonization; alternative solutions such as car-sharing programs or improved public transportation could offer greater benefits.

### Recommendations

- Formulate clear criteria for identifying which environmental goods should be prioritized for enhanced market access. The approach followed should take into account different factors, including the environmental impact (embedded GHG emissions as well as environmental benefits), the good’s functions (dual-use and whether the goods contribute to mitigation or adaptation efforts), preferences reflected in domestic legislation and regulation, and the U.S. competitive advantage in the industry, in order to allow efforts to be channeled to innovative goods rather than those where competitors are much further ahead (e.g., solar panels).
- Regarding embedded GHG emissions in products, evaluate the potential benefits of having a threshold (such as default values) as a guiding criterion.
- Assess how goods could be categorized based on their functions, considering their mitigation or adaptation purposes and the implications of this categorization for setting trade policy priorities.

<sup>28</sup> See Malouche, *supra* note 20 at 2.

<sup>29</sup> Tariff reductions may have differing impacts on behavior. For example, lowering tariffs on energy-efficient heat pumps could incentivize consumers to buy more efficient models. However, reducing tariffs on bicycles could result in cheaper imports but without encouraging car drivers to transition to cycling. See Hinman M., *Environmental Goods Tariffs: First, “Things” First in the WTO Sustainability Agenda?* (forthcoming) at 16.

<sup>30</sup> *Id.* at 5.

<sup>31</sup> “Ex-outs” refer to additional product specifications within a tariff classification that enables customs authorities to treat goods that can be used for both environmental and non-environmental purposes differently based on the use for which they are imported. This distinction allows for the application of lower tariffs where the goods are imported for environmental uses.

## GREENING TRADE RULES

### 5. Green Subsidies

There is an ongoing debate at the WTO regarding the need to update the rules established under the Agreement on Subsidies and Countervailing Measures (SCM Agreement) in order to address climate change more effectively. Core challenges lie in a lack of consensus surrounding what constitutes desirable “green” subsidies, whether and how these subsidies should be encouraged or disciplined, and transparency issues stemming from a low rate of compliance with subsidy notification requirements and differences in approach among WTO members. At issue is whether the existing rules, which prohibit subsidies with local content requirements and discipline subsidies for the products produced with them, including green products, cause harm to producers elsewhere.

#### The Workshop

This workshop was held at the WTO during the 2024 Public Forum, leveraging the presence of key stakeholders gathered in Geneva for the event. Discussion centered around three questions: (i) whether there should be a definition of “green subsidies” and what that should look like; (ii) how to improve transparency in subsidy practices given longstanding problems with the notification process; and (iii) whether there is appetite to revisit WTO rules governing subsidies to include climate change considerations.

#### Lessons Learned

Workshop participants recognized the difficulty of developing a clear legal definition of “green subsidies.” While some advocated for a positive list approach, this method was seen as potentially limited due to the rapidly evolving nature of green technologies, where both the range and categories of green products, as well as their production processes, are constantly changing. Moreover, a positive list could lead to a deadlock over disagreements, as has occurred in the past. Others suggested focusing on criteria such as subsidy objectives. However, this approach also presents challenges. Even though the reporting of objectives is currently required under the notification process,<sup>32</sup> members typically fail to provide meaningful elaboration on objectives, making them difficult to track and measure. Additionally, there can be multiple objectives attached to subsidies, and actual goals may differ from stated objectives. Overall, participants highlighted the importance of **prioritizing the practical implementation of green subsidy rules, rather than attempting to establish rigid definitions.**

Participants also agreed that the existing transparency framework under the SCM Agreement is inefficient, and that the level of compliance is lacking. A better mix of incentives around the notification process is critical. One proposal was to amend the reporting template for notifications to require countries to indicate whether subsidies aimed at combating climate change were being implemented. Such notifications could signal progress on climate action and provide insights into the type of programs members consider legitimate. However, this approach would require consensus among all WTO members and a cumbersome amendment process that would delay implementation for years. An alternative proposal was to utilize the Trade Policy Review Mechanism (TPRM) to improve the quality and availability of information. Under this approach,

32 On the questionnaire format for subsidy notifications under Article 25 of the SCM Agreement, see World Trade Organization, Committee on Subsidies and Countervailing Measures. (2003, November 11). *Questionnaire format for subsidy notifications under Article 25 of the Agreement on Subsidies and Countervailing Measures and under Article XVI of GATT 1994 (G/SCM/6/Rev.1)*. See also World Trade Organization. (2022, June 30). *Technical Cooperation Handbook on Notification Requirements: Agreement on Subsidies and Countervailing Measures*. Available at [https://www.wto.org/ENGLISH/tratop\\_E/handbook\\_on\\_notifications\\_complete\\_E.pdf](https://www.wto.org/ENGLISH/tratop_E/handbook_on_notifications_complete_E.pdf).

the WTO Secretariat could work with members during their review process to enhance understanding about their subsidy programs and improve subsidy notifications under Article 25 of the SCM Agreement.<sup>33</sup> However, it was noted that long time intervals between reviews present a challenge to this approach.

**Incentives to improve transparency was a key area of discussion.** Suggestions included granting immunity from legal challenges for purported green subsidies, although there was no consensus on the extent or desirability of such a safe harbor. The EU–UK Trade and Cooperation Agreement was cited as a potential model to explore procedural benefits, such as a limitation on the time to raise a challenge to members presenting comprehensive notifications.<sup>34</sup> Additionally, participants discussed engaging international organizations like the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), and the World Bank to support cross-notification and tie notifications to loans from multilateral banks. One concrete suggestion involved leveraging the IMF’s Article IV notification and surveillance processes.

Workshop participants further acknowledged that a uniform standard for enhanced transparency may not be feasible at the WTO as many countries lack the institutional capacity to adequately recognize which of their economic programs fall under WTO rules. However, efforts to develop capacity in Least Developed Countries are ongoing.<sup>35</sup>

Some participants emphasized that transparency efforts should be focused primarily on major subsidizing countries such as China and the United States. They noted that significant time and resources have been devoted to improving transparency among small members with minimal trade-distorting subsidies, and suggested prioritizing major subsidizers instead. However, concerns were raised regarding the right methodology to employ in identifying which members should be targeted.<sup>36</sup>

Finally, participants recognized the pitfalls of siloing the issue of green subsidies from other subsidy-related issues like agricultural subsidies and the desire among some members for flexibility to develop industrial policies. They highlighted that environmental and climate change considerations cannot be disengaged from economic ones, and that addressing other subsidy-related concerns, mainly emerging from developing countries, will be essential for advancements to be made.

### Recommendations

- Assess the potential and pathways for rechanneling the WTO Secretariat’s transparency efforts toward the largest subsidizing countries, while exploring alternative approaches with respect to other countries.
- Examine how existing mechanisms within the WTO, particularly the TPRM and the work of the Committee on Trade and Environment and SCM com-

33 See Butscher, E. & Camiña, M. A. *Green subsidies* [Workshop concept note]

34 European Union. (2021, April 30). *Trade and Cooperation Agreement between the European Union and the European Atomic Energy Community, of the one part, and the United Kingdom of Great Britain and Northern Ireland, of the other part*. Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/>; See also, Bargellini, E. (2024, August 5). *How the SCA 2022 Shapes the Effectiveness of the TCA: Lessons from EU State Aid and WTO* [Brexite Institute Working Paper Series No. 6]. *Journal of World Trade*, 59(2) (forthcoming) at 13. Available at <https://ssrn.com/abstract=4946422>. The UK Subsidies Control Act provides a timeframe of only one month from when an interested party learns about the subsidy decision or the date of entry into the subsidy database to challenge the subsidy decision.

35 World Trade Organization, Committee on Trade and Development. (2023). *WTO Technical Assistance Annual Report* [WT/COMTD/W/290] at 38. Available at [https://www.wto.org/english/tratop\\_e/devel\\_e/teccop\\_e/ta\\_annrep23\\_e.pdf](https://www.wto.org/english/tratop_e/devel_e/teccop_e/ta_annrep23_e.pdf).

36 OECD member countries were suggested as a potential target group. However, since China is not an OECD member and is among the top subsidizing countries, this grouping would not be ideal.

mittee can be leveraged to enhance transparency and deepen the WTO's understanding of members' green subsidy programs.

- Explore the feasibility of redesigning incentives surrounding the subsidy notification process, including by granting procedural benefits or immunity from legal challenges to members that comprehensively comply with the notification requirements and by engaging with relevant external bodies such as the IMF, World Bank, and OECD to support cross-notification efforts and improve information and transparency on subsidy programs more broadly.

## 6. Phasing Out Certain Plastics

For several years, the United Nations Environment Programme (UNEP) has been working on a treaty to address plastic pollution. However, negotiations have proven highly complex,<sup>37</sup> and negotiators have struggled to reach an agreement within pre-established deadlines.<sup>38</sup> The latest draft of UNEP's Plastics Treaty remains open-ended, leaving significant uncertainty about the final outcome.<sup>39</sup> Nevertheless, current proposals for restrictions on plastic production and trade appear insufficient to tackle the industry's contribution to GHG emissions, given the significant volume of plastics being made from natural gas, oil and coal. At the same time, the current treaty text allows parties to adopt additional measures, such as those needed to better address the climate impact of plastics. One promising approach, inspired by the success of the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol), involves creating a framework to phase out specific plastics, enforced through a series of trade mechanisms.

### The Workshop

This workshop analyzed the feasibility of phasing out certain plastics through a framework modeled on the Montreal Protocol's use of import quotas and trade restrictions to force a phase-out in the trade of chlorofluorocarbons (CFCs) and other ozone-depleting substances. Discussions centered on key questions, including: (i) which organic plastic polymers should be prioritized for a phase-out and what criteria should guide this selection; (ii) what elements of the Montreal Protocol's success (including trade restrictions) could be applied to those plastic polymers; (iii) what economic challenges need to be addressed in phasing out plastic polymers; and (iv) whether the phase-out of specific organic plastic polymers is a feasible and effective strategy for GHG emissions reduction.

### Lessons Learned

**Participants acknowledged several challenges in replicating the Montreal Protocol's approach for the plastics industry.** Issues included difficulties defining which products to cover and deciding whether to focus on polymer production, consumption, and disposal, other chemicals of concern such as additives used in production, or end-uses—or all three. Further, one key factor in the Montreal Protocol's success was the U.S. ban on chlorofluorocarbons, which spurred the industry to develop alternatives that did not deplete the

37 United Nations Environment Programme. (2024, November 25). *Decisive fifth session of negotiations on a global plastic pollution treaty opens in Busan* [Press release]. Available at <https://www.unep.org/news-and-stories/press-release/decisive-fifth-session-negotiations-global-plastic-pollution-treaty>.

38 Jeong, A. (2024, December 1). Divided over whether to stop making plastic, U.N. treaty talks collapse. *The Washington Post*. Available at <https://www.washingtonpost.com/climate-environment/2024/12/01/plastic-pollution-treaty-global-un-busan/>.

39 United Nations Environment Programme, Intergovernmental Negotiating Committee. *Chair's text: To develop an international legally binding instrument on plastic pollution, including in the marine environment*. Available at [https://wedocs.unep.org/bitstream/handle/20.500.11822/46710/Chairs\\_Text.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/46710/Chairs_Text.pdf).

ozone layer. In contrast, although several countries have introduced measures to restrict single-use plastics, no comparable ban on organic plastic polymers has been implemented.

Additionally, in most cases readily available alternatives are either significantly more expensive, potentially more climate damaging, or both. Another challenge is the petrochemical industry's lack of transparency regarding data on plastics, which prevents policymakers from establishing adequate baselines for restrictions. Relatedly, **most participants also expressed skepticism about phasing out of plastics**, citing the absence of scalable, cost-effective alternatives and likely resistance from the petrochemical industry.

Despite these complications, **participants provided guidelines for interrelated criteria that could be used to identify the most harmful plastics**. First, they emphasized the need to assess not only the impact of plastics on climate and the environment, but also their effects on human health. Polypropylene, polyethylenes, and polystyrene were identified as particularly harmful,<sup>40</sup> but some participants noted the lack of consensus on which to prioritize for phase-out or deterrence, especially given the significant GHG emissions linked to production volumes. Toxic additives used to modify or stabilize polymers were also underscored as critical concerns, as they leach into the environment, damaging it and posing severe health risks.

Second, participants stressed the importance of targeting plastics' end-uses, starting with those that go into single-use plastics.<sup>41</sup> Plastics have diverse applications, and while some of the most harmful ones are critical inputs for essential products, others, such as polystyrene, serve climate-friendly purposes like thermal insulation.

Third, participants identified plastics' recyclability as a crucial factor in mitigating harm.<sup>42</sup> However, concerns were raised about secondary and tertiary uses of plastics, which can be more toxic than their original forms.

In considering alternatives to a total ban, participants discussed ways to reduce plastic use and production, accounting for the low cost of virgin plastics and the higher expense and limited availability of recycling technologies and alternatives.<sup>43</sup> Some proposed a moratorium on new or expanded plastics production facilities, though concerns were raised about potential investment protection claims and the risk of free riding.<sup>44</sup> Others suggested capping production with allowances for additional capacity evaluated on a case-by-case

40 On the common types of polymers, their properties, and typical applications, see Camiña, M. A., Gupta, M., & Pumberger, M. A *global framework for reducing GHGs arising from plastics* [Workshop concept note] at 3.

41 Single-use plastics make up a third of global plastic production and are primarily fossil fuel-based, thus contributing most heavily to pollution. (Id., p. 5). See also Sugathan, M., & Deere Birkbeck, C. (2023, November). *Options for Trade-Related Cooperation on Problematic and Avoidable Plastics: Building on Existing Experiences with Single-Use Plastics*. Forum on Trade, Environment & SDGs. Available at <https://cdn2.assets-servd.host/lyrical-cormorant/production/assets/images/Publications/TESS-Policy-Paper-Trade-Related-Cooperation-on-Single-Use-Plastics.pdf?dm=1700660892>.

42 Regarding recyclability, participants highlighted that lightweight, pulverized plastics can be a priority target, as their recovery rate is lower when compared to water bottles.

43 Participants discussed the example of the cotton bag, pointing out that, as a substitute for a polypropylene bag, it may end up being more resource intensive and result in higher GHG emissions. See Sustainable Manufacturing and Environmental Pollution Programme, *Trade and Pollution Dashboard*. Available at <https://app.powerbi.com/view?r=eyJrJoiMmE5ZTEyYWUtMzBmOS-00MzgyLTk0NTctMjNjFIMTE0IiwidCI6IjJhNGQxMjcjLWU1OWEtNGRkZC1iNzZhLTl3ZGQ-4OWM0OTAuZiJ9>.

44 This solution would entail that countries do not issue new licenses for constructing or expanding facilities, in particular where there is overcapacity. See Durán González, D., de Anzizu, H., & Blue Sky, M., in collaboration with Azoulay, D. (2024, April). *Legal Models to Control Primary Plastic Polymer Production: Key Elements to Consider in the Context of a Treaty to End Plastic Pollution*. Center for International Environmental Law, at 12. Available at <https://www.ciel.org/wp-content/uploads/2024/04/Legal-Models-to-Control-Primary-Plastic-Polymer-Production.pdf>.



basis, or setting production limits using a formula considering virgin plastics, recyclable plastics, and additives. Measures to raise the price of plastics were also discussed as a potential strategy, including taxes on GHG emissions and packaging,<sup>45</sup> as well as a carbon border adjustment mechanism for plastics.<sup>46</sup> Additionally, technical regulations, such as labelling and minimum recycled content for packaging were proposed as means of reducing plastics' environmental impact.<sup>47</sup>

Finally, participants recognized that some plastics producing countries prioritize waste management over regulating plastics production or consumption. Given this divergence, international initiatives might start with a smaller group of countries, as with the Montreal Protocol, and evolve over time to adapt to the evolving science of plastics.<sup>48</sup>

### Recommendations

- Examine the feasibility of repurposing the trade tool to focus on mechanisms designed to raise the price of certain plastics. Given the challenges of implementing a broad Montreal Protocol-like approach, strategies should focus on making virgin plastics less economically viable. This could include analyzing the potential for a universal plastic tariff under ongoing UNEP negotiations, the possibility of synchronization through the WTO Dialogue on Plastics Pollution, domestic measures such as plastic taxes harmonized across markets, or the inclusion of plastics within a CBAM framework.
- Investigate the potential for complementing economic measures with a targeted phaseout of specific plastics tied to end uses. Drawing inspiration from regulations like those in the EU (e.g., straws) or the U.S. (e.g., microbeads), assess the viability of selecting products based on criteria such as harm to health and the environment, the presence of toxic additives, production volumes, associated GHG emissions, recyclability, and availability of alternatives. In conjunction, consider how greater transparency regarding organic plastic polymers could be incentivized within the plastics industry.

## 7. ISDS Reform — A Targeted Focus on Coal

Fossil fuels are responsible for over 75% of global greenhouse gas emissions, yet most investment treaties continue to provide generous protections to foreign investments in fossil fuel extraction, production and use, in part through their inclusion of provisions requiring participation in Investor-State Dispute Settlement (ISDS). ISDS provisions permit foreign investors to bring claims against the governments of countries hosting their investment projects if the government seeks to shut down or add significant new regulations limiting the actions of their foreign-invested companies. ISDS cases are costly for states to defend and can result in very large judgments against states. Because there is such extensive foreign investment in coal-fired power plants, including in a number of developing countries that are interested in transitioning away

45 Mares, J. W. (2024, November 13). *A global framework for phasing out certain plastics or plastic polymers* [Workshop presentation]; Mares, J. W. (2024, November 7). *Possible phasing out certain plastics or plastic polymers* [Workshop brief] at 4-5. These documents contain additional proposals that were not highlighted during the workshop but are also relevant for the discussion of possible trade tools.

46 Charles, D., & Cumming, P. (2024). *The Polymer Premium: A Fee on Plastic Pollution*. Minderoo Foundation. Available at <https://cdn.minderoo.org/content/uploads/2024/04/21232940/The-Polymer-Premium-a-Fee-on-Plastic-Pollution.pdf>.

47 See Durán González, de Anzizu, & Blue Sky, *supra* note 45.

48 For example, see The Fossil Fuel Non-Proliferation Treaty Initiative. *Join the call for a fossil fuel treaty to manage a global transition to safe, renewable & affordable energy for all*. Available at <https://fossilfueltreaty.org/>.

coal-fired power, and because coal accounts for over a third of global electricity generation, changes to the ISDS system as it applies coal could significantly embolden actions to shut down coal-fired power plants. To prevent ISDS from casting a “regulatory chill” on states adoption of meaningful climate policies or from obstructing efforts to phase out coal-fired power, several approaches could be explored, including creating a centralized international claims process to better manage ISDS claims, excluding investments in coal (or fossil fuels more broadly) from treaty protections, or carving out climate-related measures from ISDS altogether.

### The Workshop

The discussion focused on two key questions: (i) whether targeted measures should be adopted to prevent ISDS from hindering progress on climate action, particularly the willingness of countries to shut down foreign- invested coal-fired power plants; and (ii) whether such measures could take the form of an international claims process, a carveout for investments in coal-fired energy, or exemptions for climate-related measures.

### Lessons Learned

The workshop underscored the threat ISDS poses to global efforts to transition away from coal-fired power. ISDS has already been used to delay coal phase-out initiatives,<sup>49</sup> with the number of such cases expected to increase. For example, substantial investments in coal plants by foreign investors in countries like Indonesia,<sup>50</sup> Vietnam,<sup>51</sup> and Mozambique<sup>52</sup> are potentially protected under ISDS. A 2020 study revealed that 75% of foreign-owned coal plants requiring early retirement are covered by ISDS protections.<sup>53</sup> The fear of having multi-million-dollar judgements rendered against government actions to speed up the transition to clean energy is perceived to be a significant impediment.

**Participants acknowledged the growing global momentum for ISDS reform,** driven in part by costly awards against climate policies, which have led European countries to withdraw from the Energy Charter Treaty.<sup>54</sup> They also mentioned international efforts, such as the United Nations Commission on International Trade Law (UNCITRAL)’s work on procedural reforms to ISDS,<sup>55</sup> and the OECD’s proposal to carve out climate-related measures,<sup>56</sup> **noting that a targeted proposal would likely be viewed as a temporary fix within the broader debate about the future of ISDS.** One participant emphasized that while some advocate for abolishing ISDS entirely, others highlight its role as a mechanism to attract foreign investment—albeit with significant reforms—underscoring the need for a comprehensive approach to reforming ISDS that moves beyond piecemeal solutions.

49 See *Westmoreland Mining Holding, LLC v Canada* (ICSID Case No. UNCT/20/3); *RWE v. the Netherlands* (ICSID Case No. ARB 21/4); *Uniper v. the Netherlands* (ICSID Case No. ARB/21/22).

50 KEPCO, Business, Available at <https://home.kepcoco.kr/kepcoco/EN/B/htmlView/ENBJHP00201.do?menuCd=EN02080101>.

51 Nghi Son 2 Power Limited Liability Company (NS2PC), About Us, Available at <https://ns2pc.com/pages/about-us>.

52 Global Energy Monitor. (2024). *Global coal plant tracker*. Available at <https://globalenergymonitor.org/projects/global-coal-plant-tracker/dashboard/>.

53 Tienhaara, K.; Cotula, L. (2020). *Raising the Cost of Climate Action? Investor-State Dispute Settlement and Compensation for Stranded Fossil Fuel Assets*. International Institute for Environment and Development. Available at <https://www.iied.org/17660iied>.

54 Schaugg, L., Nikiema, S. H., & Bernasconi-Osterwalder, N. (2024, March 8). *Investor-State Dispute Settlement and Fossil Fuels: What Role for a Carveout?* International Institute for Sustainable Development. Available at <https://www.iisd.org/articles/policy-analysis/investor-state-dispute-settlement-fossil-fuels-carveout>.

55 See United Nations Commission on International Trade Law. *Working Group III: Investor-State Dispute Settlement reform*. Available at [https://uncitral.un.org/en/working\\_groups/3/investor-state](https://uncitral.un.org/en/working_groups/3/investor-state).

56 Gaukrodger, D. (2024), *Future of Investment Treaties Track 1 - Investment Treaties and Climate Change, Academic Contribution to the 9th Investment Treaty Conference [OECD 9th Annual Conference on Investment Treaties]*.

### **Recommendations**

- Examine how a targeted proposal could align with the broader ecosystem of reform initiatives, leveraging ongoing efforts at the OECD, UNCITRAL, and elsewhere.
- Assess the incentives necessary to secure sufficient buy-in from affected investors, including the possibility of a cap on liability for climate-related harms offered in exchange for transitioning away from ISDS.





## CONCLUSION

Trade Tools for Climate Action has demonstrated that using trade tools to support decarbonization efforts, to promote the diffusion and uptake of green technologies, to lessen the cost of environmental goods, and to align industrial policies with climate goals will allow the United States and its trading partners to move faster and farther in the fight against climate change than would be possible without such trade tools. The work has also underscored that each of these trade tools comes with tradeoffs and complexities that must be balanced and addressed if the tools are to be effective. Further work is needed on the design details of each tool, but collectively, they hold the potential to allow trade policy to make a substantial contribution to addressing the climate crisis. Given the Trump Administration's focus on a new trade policy, there is an urgent need to refine these tools so that they are ready to be embedded into an American First Trade Policy in a manner that allows our trade policy to work to the advantage of American producers and the American economy while also furthering the goals of climate mitigation and adaption.



## APPENDIX ›

## LIST OF WORKSHOP PARTICIPANTS

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