

POLICY BRIEF

Trade and Environment at the World Trade Organization: State of Play and Entry Points

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Key Insights

- The multilateral trading system offers a range of entry points for governments to address the intersection of trade, environment, and sustainable development.
- By providing a space for multilateral cooperation, the World Trade Organization (WTO) is an important venue for deliberations and action in support of sustainable trade.
- This policy brief provides an update on the trade and environment interface at the WTO from a governance perspective. It offers stakeholders an overview of the different institutional fora, processes, and functions at the WTO where this interface is or can be addressed.
- While there is no specific agreement in the WTO dealing with the environment, numerous provisions of WTO agreements are relevant to environment and trade, and to the growing interest in harnessing trade and trade policies to advance sustainability goals.
- Trade-related environmental policies are routinely discussed under WTO bodies charged with monitoring implementation of and compliance with existing agreements. WTO committees also provide a deliberative space to clarify rules, discuss new issues, and explore specific aspects of the trade and environment nexus
- Recent ministerial statements supported by different subsets of WTO members
 on trade and environmental sustainability, plastic pollution, and fossil fuel subsidy
 reform present new openings for fostering dialogue and cooperation on trade,
 environment, and sustainable development at the WTO.

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1. Introduction

The interface between trade and environment policies is a critical challenge for global governance. While sustainable development and the protection of the environment are firmly enshrined in the preamble of the World Trade Organization (WTO) as a key objective of the multilateral trading system, the nexus between trade, environment, and sustainable developments has been a recurring subject of debate for the last 50 years.

The link between trade and environmental protection was first recognized in the General Agreement on Tariffs and Trade (GATT)—the predecessor of the WTO—with the creation of a Group on Environmental Measures and International Trade in the run-up to the 1972 Stockholm Conference on the Human Environment.¹ In 1982, a number of developing countries raised concerns about the export by developed countries of products that these same countries prohibit domestically due to their impact on the environment, human health, or safety—a concern that led to the creation in 1989 of a Working Group on the Export of Domestically Prohibited Goods and Other Hazardous Substances. After the Rio Conference, these discussions led to the incorporation of the newly established notion of sustainable development in the preamble of the Agreement Establishing the World Trade

Organization, and to a 1994 Ministerial Decision on Trade and Environment, which highlighted the mutual supportiveness of trade and environmental policies and called for the creation of what would become the WTO Committee on Trade and Environment (CTE) (WTO, n.d.-j).

Since then, the trade and environment issue has been permanently on the agenda of the WTO although the debate has significantly evolved over the years. While there is no specific WTO agreement dealing with the environment, several provisions in WTO agreements define the conditions under which members can adopt trade-related environmental measures. At the broadest level, Article XX of the GATT (the core instrument governing trade in goods in the WTO) allows members to implement environmental measures to protect human, animal, or plant life and health or to conserve exhaustible natural resources, provided these measures do not constitute a "means of arbitrary or unjustifiable discrimination" between countries where the same conditions prevail or a "disguised restriction on international trade." Building on this general principle, several other WTO agreements also address the balance between the right to adopt environmental measures and the need to avoid unnecessary restrictions to trade.

^{1.} In practice, the group only convened 20 years later when Austria, Finland, Iceland, Liechtenstein, Norway, Sweden, and Switzerland—who were at the time all members of the European Free Trade Association—proposed to discuss possible contributions of the system to the upcoming 1992 Rio Conference on Environment and Development.

Issues related to trade and the environment have been raised in a variety of WTO bodies. Each of these bodies supports one or more of the WTO's functions—such as trade negotiations, monitoring and supporting implementation of existing agreements, dispute settlement, policy dialogue, transparency, technical assistance and capacity building, and outreach and cooperation with other organizations—and address the issue from their respective angle.

This policy brief aims to provide an overview of the different entry points at the WTO where the trade and environment interface is or can be addressed. The focus is on WTO processes and functions rather than specific trade rules or policies, with the goal of helping readers understand where and how environmental issues arise in the WTO. From this governance perspective, the brief provides an update on the trade and environment debate by reviewing the state of play of deliberations in the WTO's various multilateral bodies. It also provides an introduction to discussions taking place under new initiatives led by different subsets of WTO members on environmental sustainability, plastic pollution, and fossil fuel subsidy reform as reflected in three ministerial statements launched in December 2021.

2. How is the Environment Addressed in WTO Bodies and Processes?

To understand how the environment features at the WTO it is useful to have an overview of the different WTO bodies dealing with environmental concerns and the functions they perform in the system. Figure 1 provides a schematic overview of those WTO bodies where environmental discussions have arisen over the years, even if sporadically. It also notes new initiatives on the environment and sustainable development led by different subsets of WTO members (discussed in section 3).

The highest authority in the WTO is the Ministerial Conference, which involves representatives of all WTO members and generally meets every two years to take decisions on all matters under any of the multilateral trade agreements. In the interim, the General Council conducts this day-to-day work. The General Council also convenes in two particular forms: as the Dispute Settlement Body to adopt panel reports under the WTO's dispute settlement mechanism, and as the Trade Policy Review Body to review members' trade policies under the Trade Policy Review Mechanism (TPRM). The General Council delegates responsibility to three different councils dealing respectively with trade in goods, trade in services, and trade-related aspects of intellectual property rights (TRIPS). Under each council, specific committees or working parties

meet regularly to review the implementation of different agreements.² Committees that are not related to particular WTO agreements, such as the CTE or the Committee on Trade and Development (CTD), report direct to the General Council.

Currently, the multilateral negotiating and rule-making function of the WTO is performed under the Trade Negotiations

Committee (TNC) established at the launch of the Doha Round in 2001. Under the TNC, different committees meet in "special sessions" indicating that they serve as the body to negotiate new rules. For example, negotiations aimed at developing new international disciplines on trade and environment-related issues have taken place under special sessions of the CTE.

Finally, Figure 1 notes three member-led initiatives on the environment and sustainable development nexus, which are providing an additional space for members to foster cooperation. In December 2021, three separate ministerial statements were issued by interested members with a diverse range of co-sponsors: environmental sustainability (71 WTO members), plastic pollution (70 members), and fossil fuel subsidy reform (45 members).

The following sections provide an update on the state of play on environment-related topics under these bodies and processes.

^{2.} For example, the Committee on Agriculture oversees the implementation of the WTO Agreement on Agriculture. Other committees deal with subsidies and countervailing measures, market access, sanitary and phytosanitary (SPS) measures, and technical barriers to trade (TBT).

MINISTERIAL CONFERENCE **General Council** Committees meeting as DSB Trade and Environment (CTE) General Council Trade and Development (CTD) **Working Group General Council** Trade and Technology Transfer meeting as TPRB **Appellate Body** Dispute Settlement Council Government Trade Council for Trade for Trade procurement Negotiations for TRIPS in Services in Goods committee Committee **Working Parties Committees Special Sessions** • Domestic Regulations Services Council, TRIPS Agriculture • General Agreement on Council, Agriculture, **Trade in Services** CTE, CTD • Rules **Negotiating Group Countervailing Measures** Rules (fisheries subsidies) Anti-dumping **Member-Led Initiatives** • Trade and Environmental Sustainability Structured Discussions (TESSD) • Informal Dialogue on Plastic Pollution and Environmentally Sustainable Plastics Trade (IDP) • Fossil Fuel Subsidy Reform (FFSR)

Figure 1. WTO Bodies Where Trade and Environment Issues Are Discussed

Note: Dispute Settlement Body stands for Dispute Settlement Body, TPRB for Trade Policy Review Body, TRIPS for trade-related aspects of intellectual property rights, SPS for sanitary and phytosanitary, and TBT for technical barriers to trade.

Source: Authors' elaboration based on WTO (n.d.-o).

2.1 Ongoing Trade Negotiations and Rule-Making

Environment issues feature in several of the negotiations launched under the Doha Round of multilateral trade negotiations (also known as the Doha Development Agenda).

Although the momentum behind many aspects of the Doha Round has dwindled, it is important to note that several WTO negotiating groups established under the TNC address some environmental topics, including the Rules Negotiating Group, the CTE in special sessions, the Council for Trade in Services in special sessions, and the Committee on Agriculture in special sessions.

The Rules Negotiating Group

The Rules Negotiating Group has been tasked with addressing anti-dumping, subsidies and countervailing measures, and provisions applying to regional trade agreements. From an environmental perspective, the most important topic dealt with by the group has been the fisheries subsidies negotiations.

Since the late 1980s, global fisheries have suffered from overfishing and increased instances of illegal, unreported, and unregulated (IUU) fishing, with direct consequences not only on the sustainability of fish stocks, but also on food security and the livelihood of coastal communities. Fisheries subsidies that reduce the cost of fishing operations or artificially enhance revenues directly contribute to the build-up of excessive fishing capacity and, in the absence of effective management measures, can lead to the depletion of fish resources. To address this challenge, WTO negotiations have been underway since 2001 to "strengthen disciplines on subsidies in the fisheries sector, including through the prohibition of certain forms of fisheries subsidies that contribute to overcapacity and over-fishing," with appropriate flexibilities for developing countries (i.e. special

and differential treatment) being an integral element of the negotiations.³ The 2030 United Nations Sustainable Development Goals (SDGs) also call for the prohibition, by 2020, of certain forms of fisheries subsidies that contribute to overcapacity and overfishing and for the elimination of subsidies that contribute to IUU fishing (Target 14.6).

After a failed attempt at reaching an agreement on fisheries at the Eleventh WTO Ministerial Conference in 2017, ministers agreed to conclude the talks by the Twelfth WTO Ministerial Conference (MC12). Originally scheduled for mid-2020, MC12 has been postponed twice due to the COVID-19 pandemic, and has been rescheduled for 2022. Since then, negotiations have continued through week-long clusters, small group meetings, and bilateral consultations. In 2021, the chair of the negotiating group, Ambassador Santiago Wills from Colombia issued several iterations of a draft consolidated text (see Box 1). As negotiators work to achieve consensus on a final text, a key challenge they face is how to strike a balance between prohibiting subsidies that contribute to overcapacity and overfishing and providing flexibilities when appropriate fisheries management measures are in place or to address development imperatives.

Box 1. The Draft Consolidated Text on Fisheries Subsidies

As of March 2022, the latest draft text circulated by the Chair of the negotiations, Ambassador Wills, focuses on subsidies granted to marine wild capture fishing and fishing-related activities at sea, excluding subsidies for aquaculture, inland fishing, or land-based processing and infrastructure. It prohibits: (i) subsidies granted to vessels or operators found to have engaged in IUU fishing; (ii) subsidies for fishing of stocks that are recognized as overfished except if the subsidies themselves or other types of measures are implemented to rebuild the relevant stocks to a biologically sustainable level; and (iii) certain forms of fisheries subsidies which are recognized as contributing to overcapacity and overfishing (e.g. for fuel or vessel construction and modernization), except when management measures are in place to maintain stocks at biologically sustainable levels.

In all of these areas, the text envisages different exceptions and flexibilities for both large and small-scale fleets in developing countries and least developed countries (LDCs). At the time of writing, some of the key outstanding issues include procedures to trigger the subsidy prohibition for third countries in instances of IUU fishing determinations, possible exceptions to the general prohibitions when effective management measures are in place, and special and differential treatment for developing countries accounting for a small share of wild marine capture or for small-scale and artisanal fishing.

^{3.} The negotiations are based on an original mandate subsequently refined at the 2005 Hong Kong Ministerial Conference.

Special Sessions of the Committee on Trade and Environment (CTE-SS)

The Doha Development Agenda provides a mandate for negotiations on trade and environment in the CTE-SS on three issues:

- The relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements (MEAs);
- Procedures for regular information exchanges between MEA secretariats and the relevant WTO committees, and the criteria for the granting of observer status; and
- The reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services.⁴

Discussions on the first two points in the CTE-SS have largely been procedural in nature. In 2011, a draft ministerial text on the first two topics was developed. Although it represented a diversity of members' views and perspectives, it did not constitute an agreed text and was never adopted.

While deliberations among members on environmental goods have mostly taken place in the CTE-SS, negotiations on environmental services have been taken up within the special sessions of the Council for Trade in Services (see below).

On environmental goods, there have been some 78 submissions from WTO members and additional ones by the WTO Secretariat and Chair proposing numerous products as well as key environmental goods sectors for liberalization. However, the talks have largely been stalled since 2011 due to differences among WTO members on the definition and scope of environmental goods (what to liberalize) as well as on the negotiating modalities (how to liberalize). The stalemate was also affected by the larger breakdown of talks under the Doha Round following a lack of agreement on various other non-environment-related negotiating mandates.

Since then, attention has turned to regional initiatives (e.g. Asia-Pacific Economic Cooperation economies agreed to cut

tariffs voluntarily to 5% or less on a list of 54 environmental goods) and plurilateral initiatives at the WTO, such as the launch in 2014 of negotiations for an Environmental Goods Agreement by a subgroup of 46 WTO members.⁵ In 2021, promoting and facilitating trade in environmental goods and services was one of the topics included in the Ministerial Statement on Trade and Environmental Sustainability and is one of the four informal working groups of the Trade and Environmental Sustainability Structured Discussions (TESSD) (see section 3).

Special Sessions of the Council for Trade in Services (CTS-SS)

Discussions on the liberalization of trade in environmental services have taken place within the CTS-SS. As in the case of environmental goods, a particular challenge has been to agree on what constitutes "environmental services." The sectoral services classification currently used in the WTO uses a definition of environmental services that focuses mostly on the collection, treatment, and disposal of liquid or solid wastes. In light of the rapid evolution of the services sector, several members have highlighted the need to cover a broader range of environmental services, but consensus has so far not been reached on a revised definition.

Due to persistent disagreements, negotiations on environmental services have been largely dormant. Over the past year, however, exploratory discussions in the CTS-SS have regained momentum, with some members identifying specific services sectors where they deem liberalization and improved multilateral commitments could significantly contribute to advancing global action on environmental goals, such as engineering services, architectural services, construction services, distribution services, and consulting services.⁸ In addition, in the TESSD, a number of WTO members have noted proposals and options related to trade in environmental goods and services, resulting in a commitment to explore options for facilitating and promoting such trade in the 2021 Ministerial Statement on Trade and Environmental Sustainability.

- 4. See Paragraph 31 of the World Trade Organization, Ministerial Declaration of 14 November 2001, WTO Doc. WT/MIN(01)/DEC/1, 41 ILM 746 (2002).
- 5. The negotiations have been stalled since 2016 due to disagreements on the definition and scope of environmental goods to be included in the negotiations
- 6. The classification is based on a 1991 provisional version of the UN Central Product Classification (CPC) Division 94.
- 7. The EU, for example, has proposed an approach centred around "core" environmental services under CPC Division 94, and a list of services with a clear environmental end-use but classified elsewhere. At the other side of the spectrum, India has proposed to link market access concessions to any services as long as they are imported in the context of clearly defined environmental projects.

Special Sessions of the Committee on Agriculture (CoA-SS)

While not at the heart of ongoing WTO agricultural negotiations, environmental considerations are invoked in ongoing deliberations in the CoA-SS. In particular, WTO members have drawn attention to so-called "non-trade concerns," including environmental considerations, as a key consideration to be taken into account in future efforts at liberalizing trade in agriculture.9

Such discussions have primarily focused on the role of "green box" subsidies which are currently allowed without restrictions in the WTO. These include support measures that have no or minimal impact on trade, but which can help support public policy objectives such as environmental sustainability in agriculture. Particular concerns that have arisen in the negotiations have been to ensure that environmental programmes in developing countries are effectively covered by the green box, and to guarantee that support for environmental goals provided under such programmes in developed countries has no or at most minimal effect on the volume of production.¹⁰

Climate change considerations or references to international commitments under SDG 2 (Zero Hunger) are also frequently mentioned in CoA-SS discussions as the rationale for further reforms in agriculture, as illustrated by specific references found in the introduction to the draft chair's text on a possible MC12 outcome in agriculture. Overall, with the exception of a milestone 2015 ministerial decision to progressively eliminate export subsidies,¹¹ CoA-SS negotiations have largely been stalled since 2008, although there are continuing efforts to foster progress by MC12.¹²

2.2 Monitoring Implementation of WTO Agreements

Trade-related environmental policies are routinely discussed under WTO bodies charged with monitoring implementation and compliance with existing WTO agreements. These bodies include a range of thematic committees and a dedicated mechanism for reviewing the trade policy landscape. A core purpose of these WTO bodies is to receive and review notifications of trade-related measures taken by members and allow countries to raise questions regarding existing or upcoming trade-related measures adopted by WTO members. In doing so, they provide a multilateral space to exchange information and address trade frictions in a pre-emptive, non-litigious, and cooperative manner.

Figure 2 provides an overview of trade-related environmental measures notified in the WTO between 2009 and 2020 under all WTO agreements and compiled in the WTO's Environmental Database (EDB). Overall, more than 6,800 environment-related notifications were submitted by members during this period, referring to more than 14,400 environment-related measures. Most of these measures are in the form of technical regulations, standards, or conformity assessment procedures. They also include a wide range of environmental subsidies, including in agriculture. Most measures target the agricultural sector, but they also cover manufacturing and chemicals. In terms of environmental purposes, members have invoked a large range of justifications for such measures, including the management of chemicals, toxic, and hazardous substances, energy efficiency and renewable energy generation, biodiversity and ecosystem conservation, waste management, and sustainable production methods in agriculture.

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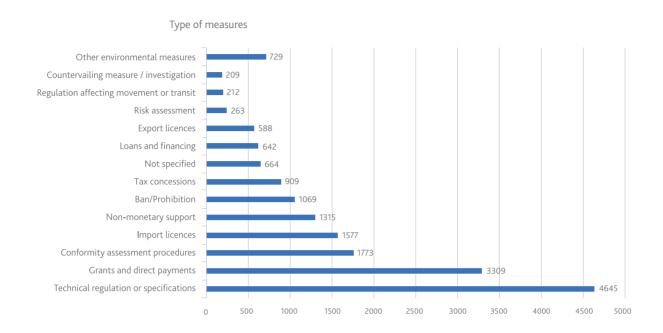
^{8.} See Special Session of the Council for Trade in Services, Exploratory Discussions on Market Access: Environmental Services, WTO Doc. JOB/SERV/299/Rev.1. circulated by Australia, Canada, Mexico, New Zealand, Switzerland, and the United Kingdom.

^{9.} Article 20 of the Agreement on Agriculture and in the Doha Declaration, see World Trade Organization, Ministerial Declaration of 14 November 2001, WTO Doc. WT/MIN(01)/DEC/1.

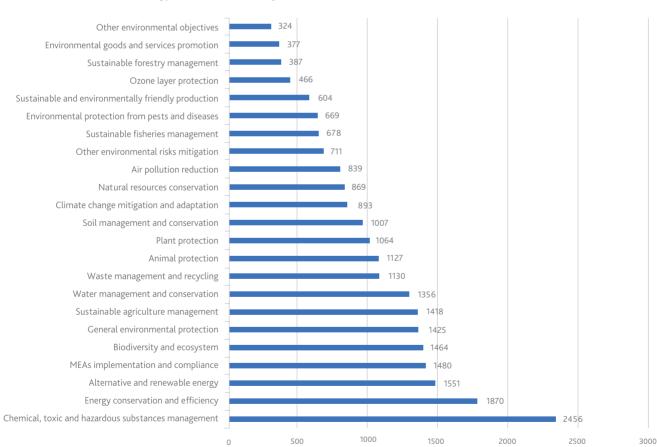
^{10.} For further details, a survey of the specific proposals discussed over this period is contained in Special Session of the Committee on Agriculture, Negotiations on Agriculture, WTO Doc. TN/AG/6.

^{11.} See World Trade Organization, Export Competition, Ministerial Decision of 19 December 2015, WTO Doc. WT/MIN(15)/45-WT/L/980.

Figure 2. Number of Environmental Measures Notified to the WTO (2009–2020)







Source: Authors' elaboration based on the WTO Environmental Database (WTO, n.d.-c).

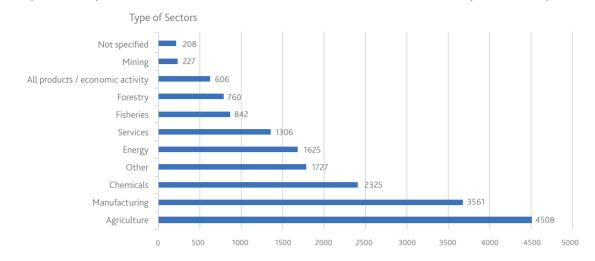
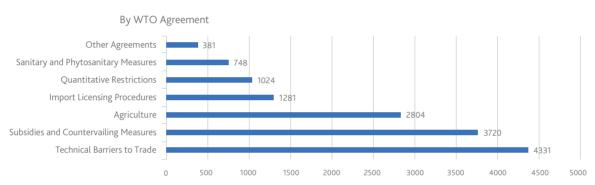


Figure 2 (continued). Number of Environmental Measures Notified to the WTO (2009–2020)



Source: Authors' elaboration based on the WTO Environmental Database (WTO, n.d.-c)

The Committee on Trade and Environment

Beyond transparency and notifications, WTO committees also provide a deliberative space to discuss specific aspects of the trade and environment nexus.

The regular CTE is the primary WTO mechanism for discussing environmental issues. The committee was established in 1994 and has formed an integral part of the WTO since the creation of the organization. Its mandate is to identify the relationship between trade and environmental measures in order to promote sustainable development and to make recommendations for possible modifications of the provisions of the multilateral trading system (WTO, n.d.-k).

The CTE's work programme was defined when the committee was established and remains unchanged since then. It consists of 10 specific thematic areas including, for example: exploring the intersection between international rules for trade and for the environment; identifying interlinkages between international trade rules and domestic policies; and providing guidance on environmental issues vis-à-vis the WTO and other international

organizations (see Box 2). The process of taking these thematic areas forward varies, with some of them having become part of ongoing trade negotiations under the Doha Round (see section 2.1) and some forming items of focus on the CTE agenda.

While the work of the CTE has not yet resulted in any concrete recommendations for changes to WTO rules, the committee's work has covered a broad range of topics. In so doing, it has contributed to improving information exchange and coordination in the space of trade and the environment, providing clarity on how rules and policy frameworks for trade and the environment interact, and building WTO members' capacity in this space.

Deliberations in the CTE have also spurred a number of requests for support from the WTO Secretariat (e.g. reports, inventories, reviews, etc.), which have contributed to improving shared understandings of the implementation and interpretation of multilateral trade rules vis-à-vis the environment. Box 3 provides a sample of outputs produced by the WTO Secretariat in response to requests by members in the context of the CTE.

Box 2. Areas of Work of the Committee on Trade and Environment.

- 1. **Trade rules, environment agreements, and disputes** (in negotiations): The relationship between the rules of the multilateral trading system and the trade measures contained in MEAs, and between their dispute settlement mechanisms.
- 2. **Environmental protection and the trading system**: The relationship between environmental policies relevant to trade and environmental measures with significant trade effects and the provisions of the multilateral trading system.
- 3. **Taxes and other environmental requirements** (*item of focus*):¹³ The relationship between the provisions of the multilateral trading system and charges and taxes for environmental purposes and requirements for environmental purposes relating to products, such as standards and technical regulations, and packaging, labelling, and recycling requirements.
- **Transparency of environmental trade measures** (ongoing since 1998): The provisions of the multilateral trading system dealing with the transparency of trade measures used for environmental purposes.
- 5. The relationship between WTO and MEA dispute settlement mechanisms (incorporated under item 1).
- 6. **Environment and trade liberalization** (*item of focus*): How environmental measures affect market access, especially in relation to developing countries and least developed countries; and the environmental benefits of removing trade restrictions and distortions.
- 7. **Domestically prohibited goods**: The issue of exports of domestically prohibited goods, in particular hazardous waste.
- 8. **Intellectual property** (item of focus): The relevant provisions of the TRIPS Agreement.
- 9. **Services**: The work programme envisaged in the Decision on Trade in Services and the Environment under the GATT (1994).
- 10. **The WTO and other organizations** (in negotiations): Input to the relevant WTO bodies on appropriate arrangements for relations with intergovernmental and non-governmental organizations (NGOs).

Source: WTO (n.d.-e)

Box 3. Examples of CTE Outputs

Environmental database: The WTO EDB was developed under the CTE area of work focused on improving transparency on environmental trade measures. It is an electronic database that registers information on environment-related measures taken in the context of global trade, as notified by WTO members and as identified in the trade policy reviews conducted by the WTO Trade Policy Review Body (see subsection below). The database is updated annually and is a key resource for informing environment-related discussions at the WTO.

Report on taxes and charges for environmental purpose (1999): A report on environmental taxes and charges was issued by the WTO Secretariat upon a request from WTO members. The report sought to strengthen understanding of economic policy instruments available to address environmental issues and their relationship to WTO law.¹⁴

Report on the relationship between the Convention on Biological Diversity and TRIPS (1999): The Secretariat issued a report discussing the relationship between the UN Convention on Biological Diversity and the WTO TRIPS Agreement (see subsection below) to provide clarity to WTO members on the relationship between the two agreements.¹⁵

Source: As identified by Teehankee (2020). Examples of other WTO Secretariat reports and tools on trade and environment are noted in Box 4.

- 12. See Bellmann (2022) for a discussion of trade and sustainability in the agricultural sector in the context of multilateral trade rules.
- 13. Item of focus refers to items on the original 1995 mandate that have received particular focus in the regular CTE following the 2001 Doha Ministerial Conference.
- 14. See Committee on Trade and Environment, Taxes and Charges for Environmental Purposes Border Tax Adjustment, WT/CTE/W/47.

The Council for Trade-Related Aspects of Intellectual Property Rights

The TRIPS Council is responsible for administering and monitoring the operation of the WTO TRIPS Agreement, which provides for minimum standards of protection of intellectual property. With respect to the environment, the TRIPS Agreement requires a review of its article 27.3(b), which deals with patentability or non-patentability of plant and animal inventions, as well as the protection of plant varieties. The TRIPS Council is also mandated to examine the relationship between the TRIPS Agreement and the Convention on Biological Diversity, the protection of traditional knowledge and folklore, and other relevant new developments raised by members.

A number of developing countries have made submissions to the TRIPS Council for stronger provisions in the TRIPS Agreement to prevent "bio-piracy" of their resources and to ensure prior informed consent and fair and equitable sharing of benefits arising from the use of biodiversity and associated traditional knowledge. However, the European Union (EU) and developed countries, including the United States (US) and Japan, have generally resisted amendments to the TRIPS Agreement, arguing that there is no conflict between the TRIPS and the Convention on Biological Diversity (ICTSD, 2003). In light of continued differences of opinions, discussions have been largely dormant since 2011. Even though the review of Article 27.3(b) has featured as a standing agenda item in all meetings of the TRIPS Council, the number of interventions on this topic have decreased over time and a conclusion of the review process has yet to emerge.16

The relevance of intellectual property rules to the transfer of environmental, particularly climate-friendly, technologies has also been raised in the course of regular TRIPS Council meetings. These discussions were particularly active from 2013–14 and revealed diverging perspectives

among developed and developing countries on the role of intellectual property in the transfer of environmentally sound climate-related technologies.¹⁷

The Working Group on Trade and Technology Transfer

The Working Group on Trade and Technology Transfer was established to examine the relationship between trade and the transfer of technology and identify "possible recommendations on steps that might be taken within the mandate of the WTO to increase flows of technology to developing countries." The working group has seen submissions from various countries on the issue. While the environment has been neither a focus nor a priority area of discussion, environmental topics have been raised in discussions and in submissions by WTO members—such as in a 2003 submission on transfer of technology of environmentally sound technologies (WTO, 2003).

Committees for Technical Barriers to Trade and Sanitary and Phytosanitary Measures

The WTO's TBT and SPS agreements aim to strike a balance between members' right to regulate for legitimate policy objectives, including for the protection of the environment, and the requirement under the multilateral trade regime to avoid arbitrary or unjustifiable discrimination. They aim at ensuring that national regulations, standards, and risk assessment and conformity assessment procedures do not create unnecessary barriers to trade, while at the same time leaving adequate regulatory discretion to members to protect human, animal, and plant life or health and preserve the environment.

The TBT and SPS committees provide a multilateral platform for WTO members to exchange information on existing or nascent national regulations, develop guidance to support implementation, and discuss specific trade concerns raised by other members. Over the past decade, both committees have provided a space to discuss trade-related frictions arising from measures put in place for environmental protection purposes and address these in a pre-emptive manner before they reach

^{15.} See Council for Trade-Related Aspects of Intellectual Property Rights, The Relationship Between the TRIPS Agreement and the Convention on Biological Diversity, IP/C/W/368/Rev.1/Corr.1.

^{16.} The latest concrete development in the discussions on TRIPS and the Convention on Biological Diversity was the Director-General Pascal Lamy's report in 2011. See World Trade Organization, Report on Issues Related to the Extension of the Protection of Geographical Indications Provided for in Article 23 of the TRIPS Agreement to Products other than Wines and Spirits and those Related to the Relationship between the TRIPS Agreement and the Convention on Biological Diversity. Report by the Director-General, WTO Doc. TN/C/W/61 (also circulated as WT/GC/W/633).

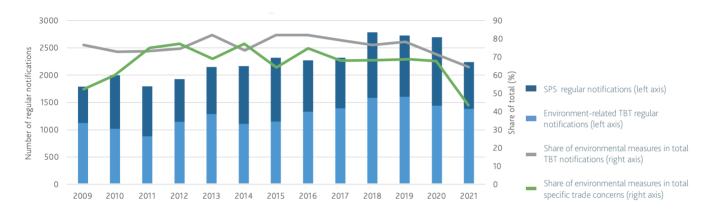
^{17.} See Communication from Ecuador on Contribution of Intellectual Property to Facilitating the Transfer of Environmentally Rational Technology, WTO Doc. IP/C/W/585. The submission and extracts of minutes from the associated discussions in the TRIPS Council can be accessed at WTO (n.d.-a).

the WTO formal dispute settlement.¹⁹ Over that decade, the number of environmental measures included in the notifications under the TBT or SPS agreements has continuously increased, reflecting the growing efforts by a range by WTO members to further their environmental regulatory and policy frameworks (see Figure 3 for more detail).

TBT measures related to the protection of animal, human, and plant health or life and the protection of the environment accounted on average for 75% of all TBT notified measures

between 2009 and 2021. Beyond objectives related to health and safety concerns, the most frequently cited environmental objectives include soil and water pollution abatement, energy conservation, and plant and forestry conservation. Specific trade concerns have been mostly raised with respect to measures related to the protection of human health and safety followed by requirements related to environmental considerations such as hazardous substances, air pollution control, energy efficiency of equipment, waste, and electrical and electronic products.

Figure 3. Evolution of SPS and Environment-Related TBT Notifications and Specific Trade Concerns



Source: Authors' elaboration based on the WTO TBT and SPS information management systems.

The Committee on Market Access

The Committee on Market Access operates under the Goods Council to supervise the implementation of concessions relating to tariffs and non-tariff measures and to provide a forum for consultation on matters relating to tariffs and non-tariff measures (WTO, n.d.-f). While environmental considerations have not been at the heart of discussions in this committee, the body has provided a space for members to raise issues related to market access barriers imposed for environmental purposes. As a recent example, meetings of the Goods Council and the Committee on Market Access over 2020 and 2021 have seen discussions on the potential trade impacts of the measures taken by the EU in relation to its Green Deal strategy, unveiled in December 2019, and in particular it's proposed Carbon Border Adjustment Mechanism. The Committee provides a space for WTO

members to seek and provide greater clarification and information on such measures, and also express their perspectives and concerns (WTO, 2020b).

The Trade Policy Review Mechanism

One of the WTO's core tasks is to conduct regular reviews of the national trade policies of its members with a view to enhancing transparency and improving the functioning of the multilateral trading system. This work is carried out under the TPRM that was set up in the early stages of the Uruguay Round under the GATT in 1988 and before the establishment of the WTO itself in 1994 (WTO, n.d.-g). The reviews are carried out in the Trade Policy Review Body, which is the WTO General Council composed of all its members, operating under special rules and procedures for the purpose of the review process. In practice, this means that the TPRM is a

^{18.} Para 37 of the World Trade Organization, Doha Ministerial Declaration of 20 November 2001, WTO Doc. WT/MIN(01)/DEC/1.

peer-review process by WTO members themselves, supported by the WTO Secretariat.²⁰ Since the establishment of the TPRM, over 480 reviews have been carried out covering the majority of WTO member countries (WTO, n.d.-m). In 2009, with a view to strengthening the TPRM, biannual reports that capture trends across the WTO members as a whole were initiated (WTO, n.d.-n).

All WTO members are subject to a regular review, with the frequency depending on a country's share of world trade.²¹ Environmental issues do not feature explicitly in the TPRM mandate or process. However, a review of trade policy review documents over the years reveals that a mapping of environment-related trade measures forms an integral part of the TPRM process, with the details recorded in the WTO EDB. Between 2009 and 2020, the WTO documented over 8,700 references to specific environmental measures in these sources (WTO, n.d.-b).

Trade policy reviews provide an important insight into how the relationship between trade and environment is evolving over time in the trade policies of members, including in terms of the sectors involved and instruments most frequently used. The question-and-answer element of the TPRM process also supports the exchange of information between WTO members, providing clarity on the environmental measures in place.

By improving the overall transparency of trade policies across the entire WTO membership, the information provided by the TPRM can indirectly support the consideration of environmental concerns in trade policy deliberations.. It helps to identify environmental measures with relevance to trade and vice versa.

2.3 Settling Disputes

Disputes related to the environment have featured prominently in the history of the WTO, leading to a rich and evolving jurisprudence. Two of the most prominent environment-related

disputes in the multilateral trading system were the "tunadolphin" case in 1984 and the "shrimp turtle" case in 1987. Core issues at dispute in both cases were whether or not governments can discriminate between imported products based on how they were produced when this would not be reflected in the final characteristics of the product. In 2009, the Appellate Body considered that general exceptions under multilateral trade rules (GATT Article XX) could justify a trade-restricting measure based on the production processes and methods of a product if the measure aims at protecting an "exhaustible natural resource." 22

Several high-profile dispute settlement cases involving environmental considerations have been brought to the WTO on topics ranging from sustainability requirements concerning the import of palm oil and crop-based biofuels, through to bans on imports with animal welfare concerns (e.g. seal products) and packaging requirements for human health concerns (e.g. tobacco products). Over the last decade, a series of cases have also involved climate-related considerations with several WTO members challenging the discriminatory or trade-distorting aspect of certain clean energy-related policies. These included traditional trade remedy cases against allegedly subsidized or dumped clean energy products as well as subsidy cases involving, for example, complaints about local content requirements (WTO, 2014; WTO, 2018).

Overall, WTO jurisprudence has consistently reaffirmed that non-discriminatory environmental policies are consistent with WTO obligations (WTO, 2001a). WTO dispute settlement panels have mostly refrained from questioning the environmental legitimacy of measures challenged in the trade context. Instead, they have focused on whether those measures have been applied in a manner that constituted disguised trade protectionism or an unjustifiable discrimination between countries where the same condition prevailed. In practice, failing to pass this non-discrimination test has been the main reason why certain environment-related measures have been declared as WTO incompatible.

^{19.} See OECD and WTO (2019b) for a detailed description of how the SPS and TBT committees operate

^{20.} The process consists of three elements: a report prepared by the WTO Secretariat, a report prepared by the government of the country in question, and a question-and-answer procedure whereby WTO members can pose questions based on the findings of the two reports.

^{21.} The twenty WTO members that have the largest share of world trade are reviewed most frequently, with the top traders (the EU, the US, Japan, and China) being subject to reviews every three years and the 16 next largest traders subject to a review every five years. The rest of the WTO member countries are reviewed every seven years, with the possibility of a longer review period for LDC members.

^{22.} See WTO (2021f) for further analysis of the jurisprudence under GATT Article XX.

At a time when there is growing action among a diversity of countries to implement stronger environmental policies to tackle pressing global challenges like climate change, pollution, and biodiversity loss, there is political and legal uncertainty about the extent to which various trade-related environmental measures will be deemed WTO compatible. This generates concern among environmental advocates that countries will refrain from environmental action due to concerns about potential trade disputes. Alongside, there is also concern that the growing range of environment-related trade measures, as well as trade-related measures to advance climate action, may undermine the open, non-discriminatory principles of the multilateral trading system, and generate significant trade tensions and a growing number of disputes. A range of proposals are emerging to encourage cooperation to avoid this last risk.²³

In the meantime, the Appellate Body of the WTO has ceased to function (primarily due to US opposition to the appointment of new Appellate Body members in light of its concerns about judicial overreach). This blockage has created important uncertainties about the future of the judicial arm of the system and the evolution of WTO jurisprudence. Efforts to restore the functioning of the Appellate Body are at the heart of ongoing WTO reform discussions among WTO members.

2.4 Technical Assistance, Capacity Building, and Aid for Trade

Over the last several years, there have been growing calls for greater attention to sustainability considerations in aid for trade.²⁴ The WTO-led Aid for Trade initiative was launched at the Sixth WTO Ministerial Conference in Hong Kong in 2005 "to help developing countries, particularly LDCs, to build the supply-side capacity and trade-related infrastructure that they need to assist them to implement and benefit from WTO agreements and more broadly to expand their trade."²⁵ Aid for trade is provided by individual governments or through multilateral agencies, but is guided by multi-annual work programmes defined through the WTO CTD and monitored through regular Aid for Trade Global Reviews.

In 2019, the total amount of official development assistance that WTO member donors marked as related to aid for trade amounted to US\$46.6 billion, representing roughly one quarter of official development assistance for that year (Cattaneo, 2021). Over the initiative's first decade, more than three quarters of aid for trade total disbursements went to four sectors: transport and storage, energy generation and supply, agriculture, and banking and financial services (OECD & WTO, 2019a). Notably, the first three of these sectors have clear environmental dimensions (both challenges and opportunities). Transport, energy, and agriculture are, for instance, high-carbon sectors with extensive environmental footprints unless the assistance provided is designed to support environmental outcomes.

For the period 2020–22, governments adopted an Aid for Trade work programme with the theme "Empowering Connected, Sustainable Trade." Among other objectives, the work programme seeks to address sustainable trade by analysing how industrialization and economic growth objectives interact with those on sustainability and responsible production, with particular emphasis on circularity. A key focal point of the work programme is the 2022 Aid for Trade Global Review, where results from the latest monitoring and evaluation exercise will be presented. This exercise aims to provide governments and stakeholders an opportunity to update their aid for trade priorities and workplans to incorporate a stronger focus on sustainable trade. Meanwhile, both the CTD and the CTE offer members and stakeholders opportunities to identify priorities, opportunities, and challenges related to aid for sustainable trade and to develop concrete proposals for next steps.

Supporting sustainable trade is among the wider array of issues that could feature in a WTO Ministerial Declaration at MC12 (the official multilateral "outcome" document of the ministerial meeting issued on behalf of all WTO members). Although the final text remains a topic of negotiation, a number of members have proposed language that reflects that of a G20 (2021) trade ministers statement, which affirmed the

^{23.} See, for instance, Bacchus (2017) and Deere Birkbeck (2021).

^{24.} Examples of proposals for green aid for trade include: mainstreaming environmental considerations across existing aid for trade support; adding new and additional support for environment-related activities that simultaneously support developing countries' economic diversification goals; ensuring that efforts to green aid for trade are linked to wider efforts to support a green global economy and promote international environmental cooperation; ensuring aid for trade monitoring systems accurately capture and report information about green aid for trade projects; and advancing complementary efforts to green trade rules in ways that address developing countries' priorities and constraints (Deere Birkbeck, 2022).

importance of "providing appropriate support to developing and least developed countries in order to help their national transition towards resource-efficient, sustainable, climate and environment-friendly development, enhance their resilience and better enable them to seize sustainable trade opportunities through Aid for Trade."

In the context of COVID-19, aid for trade discussions have highlighted the importance of a sustainable trade recovery from the pandemic, including through a focus on aid for sustainable trade (WTO, 2020d). The United Nations Environment Programme (UNEP) has provided several recommendations for boosting aid for trade's contribution to climate resilience-building, environmental goals, and sustainable trade. It has noted that "while some Aid for Trade programs contain explicit environmental objectives, a coherent framework to mainstream environment into all Aid for Trade projects and programs is required to enhance resilience and better enable countries to seize sustainable trade opportunities" (UNEP, 2020). The growing prominence of the issue was also highlighted by a partnership between the Enhanced Integrated Framework (which is responsible for trade-related support to LDCs), the Overseas Development Institute, and the International Institute for Environment and Development, which aims to equip graduated or intransition LDCs with the evidence, networks, and platforms to effectively align and secure their climate and trade strategies in international negotiations (ODI, 2021; Keane et al., 2021).

2.5 Role of the WTO Secretariat

The WTO Secretariat plays a significant role in producing information and facilitating information flows that support multilateral cooperation on trade and environment, both among WTO members and with a broad array of stakeholders.

The Trade and Environment Division of the Secretariat conducts a range of activities. It services the CTE as well as the CTE-SS, and produces information and reports at the request of members in those committees, including the Environmental Database, which contains all environment-related notifications submitted by WTO members as well as environmental measures and policies mentioned in the trade policy reviews of WTO members (see examples in Box 3).

The Secretariat also undertakes a range of environment-related outreach and cooperation activities, including support for topic-specific side events led by WTO members around the autumn meetings of the CTE, which have become known as the WTO Trade and Environment Week (WTO, n.d.-r). Further efforts to foster multistakeholder dialogue, transparency, and experience-sharing include events to coincide with World Environment Day and a UNEP-WTO partnership, which has produced a number of joint events and reports. The Secretariat has also produced reports targeting a broad public audience (see Box 4), as well as staff working papers (e.g. Steinfatt, 2020).

In addition, the Secretariat liaises and cooperates with a range of international organizations including, but not restricted to, those for which WTO legal texts explicitly mandate cooperation (e.g. UNEP, UN Conference on Trade and Development, Food and Agriculture Organization of the UN, and the World Bank) (WTO, n.d.-d; WTO, n.d.-l). Information exchange with the secretariats of MEAs is an important part of that cooperation. In this regard, the Secretariat's Trade and Environment Division has developed a WTO matrix on traderelated measures pursuant to selected MEAs (see Box 4). In addition to contributions to the WTO's technical assistance activities, the division also participates in joint technical assistance and capacity building on trade and environment issues with several MEAs and international organizations (WTO, n.d.-q). The Secretariat further liaises on an ongoing basis with a range of stakeholders, providing specialized information and engaging in webinars and discussions.

The top leadership of the WTO has also been increasingly active on issues of trade and environment, including through participation in a range of international processes and events in which the relevance of the WTO to tackling global environmental challenges has been noted. This engagement has included speeches that have highlighted both the trade impacts of a range of environmental challenges and measures as well as the role that trade and trade policies play in supporting the efforts of governments to tackle environmental challenges, from climate change to pollution and biodiversity loss (WTO, 2021b; WTO, 2022b).

Box 4. Examples of WTO Outreach and Cooperation on Environment Issues

WTO Trade and Environment Week: In November 2020, the WTO Secretariat organized a trade and environment week comprising a series of events and workshops led by WTO members, along with a high-level session co-hosted by the UNEP and WTO secretariats. The week was held alongside the CTE meeting (WTO, 2020d).

Briefing on WTO and the environment: The briefing entitled "Short Answers to Big Questions on the WTO and the Environment" aimed at improving understanding of the role of trade and trade rules with regards to environmental issues (WTO, n.d.-j). It answers, in simple terms, some key questions on the trade and environment debate as they relate to the multilateral trading system.

WTO and UNEP joint reports: A 2018 joint report on "Making Trade Work for the Environment, Prosperity and Resilience" aimed at assisting countries to identify opportunities to use trade proactively to promote sustainability and prosperity (WTO & UNEP, 2018). Earlier, a joint UNEP-WTO report in 2009 provided a review of trade-relevant climate policies and measures (e.g. taxes and emission trading systems (WTO & UNEP, 2019).

WTO and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): A joint report on "Enhancing Cooperation for Sustainable Development" reviewed the evolution of cooperation between CITES and the WTO and the opportunities for the global trade and environmental regimes to be mutually supportive (WTO & CITES, 2015).

WTO Matrix on Trade-Related Measures Pursuant to Selected Multilateral Environmental Agreements: The matrix includes information on trade-related measures of MEAs, notably requirements or restrictions on imported or exported products, as well as supportive measures, such as technology transfer, and financial or technical assistance under the provisions of the MEA (WTO, n.d.-q). The matrix is being upgrade to a digital platform in collaboration UNEP and its platform for information on MEAs (InforMEA).

WTO information briefs on climate: In advance of the 26th UN Climate Change Conference of the Parties in 2021, the WTO Secretariat issued five information briefs on trade and climate with a view to inform its members and a wider audience on the state of play regarding trade-related climate issues and measures. The briefs provided information on trade policies notified by WTO members to address climate change, information on climate change-related provisions in regional trade agreements, trade resilience amid natural disasters, carbon emissions associated with international trade, and the role of trade in supporting climate change adaptation in Africa (WTO, 2021g).

Virtual Trade Dialogues with business – "Trade 4 Climate": The International Chamber of Commerce and the WTO Secretariat co-hosted a virtual Trade Dialogue on 26 October 2021 to facilitate discussions between business representatives, WTO members, and key stakeholders on how trade can support climate action (WTO, n.d.-p).

3. Member-Led Initiatives on Trade, Environment, and Sustainable Development

Trade and environment discussions at the WTO have seen renewed momentum over the past two years, spearheaded by three separate member-led initiatives on trade, environment, and sustainable development, which bring together different subsets of members committed to enhancing cooperation on global environmental challenges in the framework of the WTO.

In December 2021, co-sponsors issued ministerial statements on three topics—environmental sustainability, plastic pollution, and fossil fuel subsidy reform—each of which aim to spur enhanced cooperation and dialogue as a complement to work under way in other WTO committees, including the CTE (Lim et. al., 2022; Deere Birkbeck, 2022). Notably, these statements have attracted a broad diversity of the WTO's membership, with 81 members (representing 86% of world trade) co-sponsoring at least one of the ministerial statements. Of those members, more than half are developing countries, including several LDCs. Each of

the statements recognizes the importance of addressing needs of developing countries and the importance of a just transition (Lim et. al., 2022). The statements also recognize the contribution that stakeholders can make to their work.

In each case, participation in the work of the initiatives is open to all WTO members, and the co-sponsors are encouraging more members to co-sponsor the respective ministerial statements. Each initiative also proposes workplans or road maps to support the development of concrete outcomes, targeting the Thirteenth WTO Ministerial Conference as a milestone.

3.1 The Trade and Environmental Sustainability Structured Discussions

In 2020, a group of 53 WTO members co-sponsored the launch of the Trade and Environmental Sustainability Structured

Discussions at the WTO to bolster information-sharing and dialogue on environment-trade intersections, nurture possible ways forward, and spur more focused attention on these issues in the work of the WTO's regular committees (WTO, 2020c; WTO, 2021d). When launching TESSD, co-sponsors emphasized the importance of ongoing discussions at the CTE and committed to complementing and supporting work in that process, including through regular reporting on their discussions. Since the launch, TESSD meetings, which are open to all members, have attracted participation from a diverse range of WTO members (WTO, 2020c; WTO, 2021d).

In December 2021, a Ministerial Statement on Trade and Environmental Sustainability was issued by 71 WTO members representing a diversity of the WTO's membership. Co-sponsors included the world's three largest trading powers—the EU, China, and the US – and members as diverse as Albania, Barbados, Chad, Ecuador, Singapore, and Turkey.²⁶ In the statement, co-sponsors recognized that "international trade and trade policy can and must support environmental and climate goals and promote more sustainable production and consumption, taking into account the importance of a just transition and making progress towards achieving the SDGs."²⁷

Stressing "the importance of environmental sustainability as a central issue for the WTO agenda," the ministers agreed to: launch dedicated discussions on trade and climate change; explore opportunities and possible approaches for promoting and facilitating trade in environmental goods and services; identify good practices and voluntary actions on resource-efficient circular economy, sustainable supply chains, and access to environmental goods and services (including climate technologies); and support continued discussions on the environmental effects and trade impacts of subsidies. Ministers also encouraged enhanced collaboration to support developing countries through capacity building and technical assistance on trade and environmental sustainability, including through aid for trade. Finally, the cosponsors called for a high-level event at the end of 2022 to take

stock and report on progress achieved with a view to adopting a workplan towards the Thirteenth WTO Ministerial Conference.

To kick off its work, the co-sponsors have agreed on a TESSD workplan for 2022 that will combine a series of four plenary sessions as well as four informal working groups focused on trade-related climate measures; environmental goods and services; circular economy; and the environmental effects and trade impacts of subsidies (WTO, 2022a).

3.2 The Informal Dialogue on Plastic Pollution and Environmentally Sustainable Plastics Trade

In November 2020, a group of 16 WTO members, led by China and Fiji, co-sponsored the launch of the Informal Dialogue on Plastic Pollution and Environmentally Sustainable Plastic Trade (IDP) at the WTO. The co-sponsors announced that the IDP would "explore how improved trade cooperation, within the rules and mechanisms of the WTO, could contribute to domestic, regional and global efforts to reduce plastic pollution and transition to a more circular and environmentally sustainable global plastics economy." From the outset, the co-sponsors have emphasized the importance of pursuing cooperation at the WTO that complements and does not duplicate work on plastic pollution underway in other international processes, and that the work of the IDP seeks to complement and support discussions in the WTO CTE.

In early 2021, the group agreed that its work would be led by six co-convenors: Australia, Barbados, China, Ecuador, Fiji, and Morocco (IISD, 2020). In 2021, the co-sponsors of the IDP focused their discussions on improving transparency, monitoring trade trends, promoting best practices, strengthening policy coherence, identifying the scope for collective approaches, assessing capacity and technical assistance needs, and cooperating with other international processes and efforts.

^{25.} See World Trade Organization, Ministerial Declaration of 18 December 2005, Doha Work Programme, WTO Doc. WT/MIN(05)/DEC.

^{26.} Co-sponsors as of March 2022 were Albania; Australia; Bahrain, Kingdom of; Cabo Verde; Canada; Chad; Chile; China; Colombia; Costa Rica; Ecuador; European Union (+ its 27 Members); Fiji; The Gambia; Honduras; Hong Kong, China; Iceland; Israel; Japan; Kazakhstan; Korea, Republic of; Liechtenstein; Macao, China; Maldives; Mexico; Moldova, Republic of; Montenegro; New Zealand; North Macedonia; Norway; Panama; Russian Federation; Saudi Arabia, Kingdom of; Senegal; Singapore; Suriname; Switzerland; Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu; Turkey; Ukraine; United Kingdom; United States; Uruguay; and Vanuatu.

^{27.} See World Trade Organization, Ministerial Statement on Trade and Environmental Sustainability, 14 December 2021, WTO Doc. WT/MIN(21)/6/Rev.2.

In December 2021, a diverse group of 67 WTO members (which had grown to 70 members by March 2022) issued a Ministerial Statement on Plastic Pollution and Environmentally Sustainable Plastics Trade.²⁸ In the statement, ministers agree to identify actions that participating members could take collectively to support global efforts to reduce plastics pollution.²⁹

Topics noted in the statement include improving data collection regarding trade flows and supply chains and strengthening cooperation with other international processes focused on reducing plastic pollution. In the statement, the co-sponsors also agree to identify best practices and share experiences on: effective circular economy approaches; how trade-related cooperation can help reduce unnecessary or harmful plastics and plastic products, with special attention to issues and challenges arising for developing members; and how to promote trade in goods, services, and use of technologies that can reduce plastic pollution. Ministers also agree to identify actions to address trade-related capacity building and technical assistance needs of developing countries, including by considering plastic pollution in aid for trade and access to technologies. The statement calls for concrete, pragmatic, and effective outcomes from these actions and understandings at the latest by the Thirteenth WTO Ministerial Conference.

Like TESSD, all IDP meetings are open to all WTO members. The coconvenors have also invited a number of stakeholder groups to provide inputs to their discussions. In 2022, the IDP established a work plan that combines a series of three plenary sessions over the course of the year, with three work streams on: crosscutting issues related to international cooperation; promoting trade to tackle plastic pollution; and circularity and reduction to tackle plastic pollution.

3.3 Fossil Fuel Subsidy Reform

At the Eleventh WTO Ministerial Conference in 2017, 12 countries led by New Zealand issued a joint Ministerial Statement on Fossil Fuel Subsidy Reform, arguing that governments should harness the multilateral trading system to support greater transparency of fossil fuel subsidies, share national experiences of reform, and foster dialogue on how

trade disciplines could support reform efforts.³⁰ To continue building a supportive international setting for a multilateral response, 45 members issued a Ministerial Statement on Fossil Fuel Subsidies in December 2021 in which they committed to improved information-sharing to advance discussion "aimed at achieving ambitious and effective disciplines on inefficient fossil fuel subsidies, [...] including through enhanced WTO transparency and reporting" and elaborating concrete options to progress this issue in advance of the Thirteenth WTO Ministerial Conference.³¹ Notably, the 2021 Ministerial Statement includes the EU (and its 27 member states) as well as the United Kingdom, bringing the initiative its first G7 members.

In addition to calling for the rationalization and phasing out of fossil fuel subsidies along a clear timeline, the 2021 Ministerial Statement establishes a process for dialogue, transparency, learning, and experience-sharing vital to spurring national reforms and enhanced international cooperation. In so doing, the initiative intends to shed light on the kinds of reforms that are possible and ways to ensure that reform does not harm the most vulnerable communities. The statement explicitly recognizes that fossil fuel subsidy reform "needs to take fully into account the specific needs and conditions of developing countries and minimize the possible adverse impacts on their development in a manner that protects the poor and the affected communities."

Co-sponsors of the fossil fuel subsidy reform statement will continue their work in 2022, including on ways to make good on the commitment within the statement to elaborate concrete options for advancing fossil fuel subsidy reform ahead of the Thirteenth WTO Ministerial Conference. With the support of stakeholders this work will seek to: build understanding of the current activities in other international processes; discuss development issues and perspectives from developing countries including lessons from ongoing reform experiences; and share updates on data and policy development at the national, regional, and global level.

^{28.} See World Trade Organization, Ministerial Statement on Plastic Pollution and Environmentally Sustainable Plastics Trade (IDP), 22 November 2021, WTO Doc. WT/MIN(21)/8.

^{29.} Co-sponsors as of March 2022 include Albania, Angola, Australia; Barbados; Bolivia, Cabo Verde; Cambodia; Cameroon; Canada; Central African Republic; Chad; Chile; China; Colombia; Costa Rica; Ecuador; European Union (+ its 27 members); Fiji; The Gambia; Honduras; Hong Kong, China; Iceland; Jamaica; Japan; Kazakhstan; Republic of Korea; Macao, China; Maldives, Morocco; New Zealand; Norway; Panama; Peru; Philippines; Russian Federation; Singapore; Suriname; Switzerland; Thailand; Tonga; United Kingdom; Uruguay; and Vanuatu.

^{30.} See World Trade organization, Ministerial Statement on Fossil Fuel Subsidies Reform, 12 December 2017, WTO Doc. WT/MIN(17)/54. Co-sponsors included Chile, Costa Rica, Iceland, Liechtenstein, Mexico, the Republic of Moldova, New Zealand, Norway, Samoa, Switzerland, Taiwan, and Uruguay.

4. Stakeholder Participation

As a member-driven intergovernmental organization, nonstate actors are generally not invited to participate in the WTO's deliberative processes. Members however recognize the contribution of NGOs and have given the WTO Secretariat the authority to establish direct contacts with NGOs.³² Since the creation of the WTO, members have also allowed progressive steps in enhancing transparency and greater access to WTO documents through the WTO website.³³

Channels through which stakeholders can engage with the Secretariat and WTO members include the annual Public Forum which provides a platform for public debate across a wide range of WTO issues (WTO, n.d.-h),³⁴ as well as regular briefings held by the WTO Secretariat after major meetings. NGOs and business can also be accredited to take part in some aspects of WTO ministerial conferences. Finally, they can attend the public hearings of some dispute settlement proceedings. Besides direct

contacts, stakeholders can also share position papers and written contributions to the Secretariat on topics of relevance to the WTO as well as amicus curiae briefs related to particular disputes.

In an important development, the three new member-led initiatives on trade, environment, and sustainable development each provide additional avenues for stakeholder engagement. For example, in the ministerial statements related to the TESSD, the IDP, and FFSR, co-sponsors have committed to engaging with stakeholders, including by enabling some stakeholders to participate on a regular basis in some of their meetings (either as observers or to take the floor), and also by inviting presentations on specific topics of interest to members. The TESSD, for instance, includes sessions for WTO members that enable exchanges with external stakeholders, including international organizations, NGOs, the business community, and academia.

5. Conclusion

In today's global economy, addressing transboundary environmental challenges such as climate change, ecosystem degradation, and pollution requires coherent and collaborative policy approaches across jurisdictions and between policymaking on trade, environment, and sustainable development.

The WTO offers a unique multilateral forum that governments can harness to foster inclusive discussion and action on the nexus of trade, environment, and sustainable development among a broad diversity of members, including developing countries. This policy brief has reviewed the range of entry points and processes that are relevant to work on these topics at the WTO.

The different WTO bodies described in this policy brief provide critical spaces to review existing policies, exchange information, discuss best practices, negotiate, solve problems, and litigate

when necessary. In addition, the new member-led initiatives on environmental sustainability, plastic pollution, and fossil fuel subsidy reform provide important avenues to foster enhanced dialogue among interested members, identify and solve problems, and incubate stronger multilateral cooperation.

Looking forward, the key to harnessing the WTO as an effective arena for advancing cooperation on pressing trade and environment challenges facing the global economy will be to couple a critical reflection on how both existing rules and new forms of cooperation can be developed to proactively support action on inclusive and sustainable trade. This will require not only high-level guidance from ministers, but also increased policy coherence at the national level and sustained engagement from stakeholders.

- 31. See World Trade Organization, Ministerial Statement on Fossil Fuel Subsidies, 14 December 2021, WTO Doc. WT/MIN(21)/9/Rev.1.
- 32. See Article V.2 of the Marrakesh Agreement Establishing the WTO and the 1996 General Council Decision (WT/L/162), which still acts as the basis for WTO-NGO relations today.
- 33. See World Trade Organization, Procedures for the Circulation and Derestriction of WTO Documents, Decision of 14 May 2002, WTO Doc. WT/L/452.
- 34. According to the WTO Secretariat, more than 9,000 representatives of NGOs, academia, business, media, government, parliamentarians, and intergovernmental organizations have participated in the Public Forum since it was first launched in 2001.

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ABBREVIATIONS

COA-SS Special Sessions of the Committee on Agriculture

CTD Committee on Trade and Development
CTE Committee on Trade and Environment

CTE-SS Special Sessions of the Committee on Trade and Environment

CTS-SS Special Sessions of the Council for Trade in Services

EDB Environmental Database EU European Union

GATT General Agreement on Tariffs and Trade

IDP Informal Dialogue on Plastic Pollution and Environmentally Sustainable Plastics Trade

IUU Illegal, Unreported, and Unregulated

LDC Least Developed Country

MC12 Twelfth WTO Ministerial Conference
MEA Multilateral Environmental Agreement
NGO Non-Governmental Organization
SDG Sustainable Development Goal

TESSD Trade and Environmental Sustainability Structured Discussions

TNC Trade Negotiations Committee
TPRM Trade Policy Review Mechanism

TRIPS Trade-Related Aspects of Intellectual Property Rights

UN United Nations

UNEP United Nations Environment Programme

US United States

REFERENCES

Bacchus, J. (2017). The Case for a Climate Waiver. Centre for International Governance Innovation (CIGI). https://www.jstor.org/stable/resrep17314

Bellmann, C. (2022). *Trade and sustainability in the agriculture sector: Options for multilateral trade cooperation.* Forum on Trade, Environment & the SDGs (TESS).

Cattaneo, O. (2021, June 28). *Presentation at webinar on Greening Aid for Trade and the SDGs.* IISD SDG Knowledge Hub. Retrieved November 7, 2021, from https://sdg.iisd.org/news/experts-discuss-greening-aid-for-trade-to-reach-sustainable-development/

Deere Birkbeck, C. (2021). Priorities for the climate-trade agenda: how a trade ministers' coalition for cooperation on climate action could help. The Royal Institute of International Affairs. https://www.cascades.eu/publication/priorities-for-the-climate-trade-agenda/

Deere Birkbeck, C. (2021). Delivering for the environment at MC12. IISD Policy Analysis. https://www.iisd.org/articles/mc12-prospects-enhance-trade-cooperation

G20. (2021, 12 October). G20 Ministerial Statement on Trade and Investment. http://www.g20.utoronto.ca/2021/G20-TIMM-statement-PDF.pdf

International Centre for Trade and Sustainable Development. (2003). Intellectual property rights. *Doha Round Briefing Series*, 5(13). https://www.iisd.org/system/files/publications/wto_doha_ipr.pdf

International Institute for Sustainable Development. (2020). WTO members launch "open-ended informal dialogue" to promote sustainable plastics economy. SDG Knowledge Hub. https://sdg.iisd.org/commentary/policy-briefs/wto-members-launch-open-ended-informal-dialogue-to-promote-sustainable-plastics-economy/

Keane, J., Bird, N., Tanjangco, B. & Colenbrander, S. (2021). Aligning climate finance and aid for trade: A new agenda for LDC negotiators. *Policy brief.* ODI. https://cdn.odi.org/media/documents/Aligning_climate_finance_and_Aid_for_Trade_X1bReFA.pdf
Lim, A., Ramos, D., & Kiskinova, G. (2022). Where do WTO trade and environmental sustainability initiatives stand today? *IISD Policy Analysis*. https://www.iisd.org/articles/analysis/where-do-wto-trade-and-environmental-sustainability-initiatives-stand-today

Overseas Development Institute. (2021). *Aligning climate and trade policy for LDCs and graduates*. Retrieved November 10, 2021, from https://odi.org/en/about/our-work/aligning-climate-and-trade-policy-for-ldcs-and-graduates

Organisation for Economic Co-operation and Development & World Trade Organization. (2019a). Aid for Trade at a Glance 2019: Economic Diversification and Empowerment. OECD Publishing. https://www.oecd-ilibrary.org/docserver/18ea27d8-enpdf?expires=1630236174&id=id&accna me=guest&checksum=551BC4AA52E7ABC0B92B523F241A7120

Organisation on Economic Co-operation and Development & World Trade Organization. (2019b). Facilitating trade through regulatory co-operation: The case of the WTO's TBT/SPS agreements and committees. WTO/OECD Publishing. https://doi.org/10.1787/ad3c655f-en

Steinfatt, K. (2020). Trade policies for a circular economy: What can we learn from WTO experience? WTO Staff Working Paper No. ERSD-2020-10. WTO. https://www.econstor.eu/handle/10419/222561

Teehankee, M. (2020, December). Trade and environment governance at the World Trade Organization Committee on Trade and Environment. *Journal of International Economic Law 23(4)*, pp. 2210–4. https://doi.org/10.1093/jiel/jgaa042

United Nations Environment Programme. (2020). Aid for trade: A vehicle to green trade and build climate resilience. UNEP. https://wedocs.unep.org/handle/20.500.11822/32204

World Trade Organization. (n.d.-a). Climate change and TRIPS. https://www.wto.org/english/tratop_e/trips_e/cchange_e.htm

World Trade Organization. (n.d.-b). *Database on trends in environmental entries in the trade policy review.* Retrieved November 10, 2021, from https://edb.wto.org/tpr

World Trade Organization. (n.d.-c). Environmental database. https://edb.wto.org/

World Trade Organization. (n.d.-d). *Intergovernmental Organizations working with the WTO Secretariat.* Retrieved November 10, 2021, from https://www.wto.org/english/thewto_e/coher_e/igo_divisions_e.htm#envir

World Trade Organization. (n.d.-e). Items on the CTE's work programme. https://www.wto.org/english/tratop_e/envir_e/cte00_e.htm

World Trade Organization. (n.d.-f). Market access for goods. Retrieved November 6, 2021, from https://www.wto.org/english/tratop_e/markacc_e/markacc_e.htm

World Trade Organization. (n.d.-g). Overseeing national trade policies: The TPRM. https://www.wto.org/english/tratop_e/tpr_e/tp_int_e.htm

World Trade Organization. (n.d.-h). Public Forum. https://www.wto.org/english/forums_e/public_forum_e/public_forum_e.htm

World Trade Organization. (n.d.-i). Relevant WTO provisions: Text of 1994 decision. https://www.wto.org/english/tratop_e/envir_e/issu5_e.htm

World Trade Organization. (n.d.-j). Short answers to big questions on the WTO and the environment. Retrieved November 10, 2021, from https://www.wto.org/english/res_e/publications_e/envirqapublication_e.htm

World Trade Organization. (n.d.-k). The Committee on Trade and Environment. https://www.wto.org/english/tratop_e/envir_e/wrk_committee_e.htm

World Trade Organization. (n.d.-l). *The WTO and other organizations*. Retrieved November 10, 2021 from https://www.wto.org/english/thewto_e/coher_e/coher_e.htm

World Trade Organization. (n.d.-m). *Trade policy reviews: 30 years of the trade policy review mechanism.* Retrieved November 3, 2021, from https://www.wto.org/english/tratop_e/tpr_e/tprm30_e.htm

World Trade Organization. (n.d.-n). *Trade policy reviews: Trade monitoring*. Retrieved November 3, 2021, from https://www.wto.org/english/tratop_e/tpr_e/trade_monitoring_e.htm

World Trade Organization. (n.d.-o). Understanding the WTO: WTO organization chart. https://www.wto.org/english/thewto_e/whatis_e/tif_e/org2_e.htm

World Trade Organization. (n.d.-p). *Virtual trade dialogues with business* — "Trade 4 Climate". Retrieved November 10, 2021, from https://www.wto.org/english/tratop_e/envir_e/trade4climate_e.htm

World Trade Organization. (n.d.-q). WTO matrix on trade-related measures pursuant to selected multilateral environmental agreements (MEAs). https://www.wto.org/english/tratop_e/envir_e/envir_matrix_e.htm

World Trade Organization. (n.d.-r). WTO trade and environment week 2020. https://www.wto.org/english/tratop_e/envir_e/tedweek2020_e.htm

World Trade Organization, Ministerial Decision on Trade and Environment, 15 April 1994.

World Trade *Organization*. *Guidelines for Arrangements on Relations with Non-Governmental Organizations,* Decision adopted by the General Council on 18 July 1996, WTO Doc. WT/L/16 (Jul. 23 1996) https://www.wto.org/english/forums_e/ngo_e/162.pdf

World Trade Organization, Committee on Trade and Environment, *Taxes and Charges for Environmental Purposes – Border Tax Adjustment,* Note by Secretariat, WTO Doc. WT/CTE/W/47 (May 2, 1997). https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=Q:/WT/CTE/W47.pdf&Open=True

World Trade Organization. (2001a). *Dispute Settlement DS135: European Communities — Measures Affecting Asbestos and Products Containing Asbestos*. Retrieved November 3, 2021, from https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm

World Trade Organization, Ministerial Declaration of 14 November 2001, WTO Doc. WT/MIN(01)/DEC/1. https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=Q:/WT/Min01/DEC1.pdf&Open=True

 $World\ Trade\ Organization, \textit{Procedures for the Circulation and Derestriction of WTO Documents}, \ Decision\ of\ 14\ May\ 2002,\ WTO\ Doc.\ WT/L/452. \\ https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=Q:/WT/L/452.pdf&Open=True$

 $World\ Trade\ Organization,\ Special\ Session\ of\ Committee\ of\ Agriculture,\ Negotiations\ on\ Agriculture,\ WTO\ Doc.\ TN/AG/6\ (Dec.\ 18,\ 2002).\ https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=Q:/TN/AG/6.pdf&Open=True$

World Trade Organization, Working Group on Trade and Transfer of Technology, *Creating Incentives for the Transfer of Environmentally Sound Technologies (EST): The Experience of the Swiss Development Cooperation,* Communication from Switzerland, WTO Doc. WT/WGTTT/W/7.9 (May 9, 2003). https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=Q:/WT/WGTTT/W7.pdf&Open=True

World Trade Organization, Ministerial Declaration of 18 December 2005, Doha Work Programme, WTO Doc. WT/MIN(05)/DEC.

World Trade Organization, Council for Trade-Related Aspects of Intellectual Property Rights, *The Relationship Between the TRIPS Agreement and the Convention on Biological Diversity*, Note by Secretariat, WTO Doc. IP/C/W/368/Rev.1/Corr.1 (Mar 9, 2006). https://www.wto.org/english/tratop_e/trips_e/ipcw368r1c1.pdf

World Trade Organization, General Council Trade Negotiations Committee, *Issues Related to the Extension of the Protection of Geographical Indications Provided For in Article 23 of the TRIPS Agreement to Products Other Than Wines and Spirits and Those Related to the Relationship Between the TRIPS Agreement and the Convention On Biological Diversity*, Report by Director-General, WTO Doc. WT/GC/W/633 and TN/C/W/61 (Apr. 21, 2011). https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=Q:/TN/C/W61.pdf&Open=True

World Trade Organization, Council of Trade-Related Aspects of Intellectual Property Rights, *Contribution of Intellectual Property to Facilitating the Transfer of Environmentally Rational Technology*, Communication from Ecuador, WTO Doc. IP/C/W/585 (Feb 27, 2013). https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/IP/C/W585.pdf&Open=True

World Trade Organization. (2014). Dispute Settlement DS426: Canada — *Measures Relating to the Feed-in Tariff Program*. Retrieved November 3, 2021, from https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds426_e.htm

World Trade Organization, Export Competition, Ministerial Decision of 19 December 2015, WTO Doc. WT/MIN(15)/45 — WT/L/980. https://www.wto.org/english/thewto_e/minist_e/mc10_e/l980_e.htm

World Trade Organization, Ministerial Statement on Fossil Fuels Subsidies Reform, 12 December 2017, WTO Doc. WT/MIN(17)/54.

World Trade Organization. (2018). Dispute Settlement DS456: India — *Certain Measures Relating to Solar Cells and Solar Modules*. Retrieved November 3, 2021, from https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds456_e.htm

World Trade Organization, Special Session of Council for Trade in Services, *Exploratory Discussions on Market Access: Environmental Services*, Communication from Australia, Canada, Mexico, New Zealand, Switzerland and the United Kingdom, WTO Doc. JOB/SERV/299/Rev.1 (Oct. 5, 2020). https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/Jobs/SERV/299R1.pdf&Open=True

World Trade Organization. (2020b, June 11). Goods council considers EU plans for carbon taxes on certain imports. WTO News. https://www.wto.org/english/news_e/news20_e/good_11jun20_e.htm

World Trade Organization. (2020c, November 17). New initiatives launched to intensify WTO work on trade and the environment. WTO News. https://www.wto.org/english/news_e/news20_e/envir_17nov20_e.htm

World Trade Organization. (2021a, March 5). First meeting held to advance work on trade and environmental sustainability. WTO News. https://www.wto.org/english/news_e/news21_e/tessd_08mar21_e.htm

World Trade Organization. (2021b). Launch event of ministerial statements on trade, environment and sustainable development. *Keynote Address by WTO Director-General Ngozi Okonjo-Iweala*. https://www.wto.org/english/news_e/spno_e/spno_0_e.htm

World Trade Organization, Ministerial Statement on Fossil Fuel Subsidies, 14 December 2021, WTO Doc. WT/MIN(21)/9/Rev.1. https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN21/9R1.pdf&Open=True

World Trade Organization, Ministerial Statement on Plastic Pollution and Environmentally Sustainable Plastics Trade (IDP), 22 November 2021, WTO Doc. WT/MIN(21)/8. https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN21/8.pdf&Open=True

World Trade Organization, Ministerial Statement on Trade and Environmental Sustainability, 14 December 2021, WTO Doc. WT/MIN(21)/6/Rev.2. https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN21/6.pdf&Open=True

World Trade Organization. (2021f). WTO analytical index. GATT 1994 – Article XX (jurisprudence). https://www.wto.org/english/res_e/publications_e/ai17_e/gatt1994_art20_jur.pdf

World Trade Organization. (2021g). WTO issues information briefs on trade, climate, related issues with COP26 talks underway. Retrieved November

10, 2021 from https://www.wto.org/english/news_e/news21_e/clim_03nov21_e.htm

World Trade Organization, Communication from the TESSD Coordinators, 18 February 2022, WTO Doc. INF/TE/SSD/W/17/Rev.1. https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx

World Trade Organization. (2022b, January 28). DG Okonjo-Iweala tells sustainability conference "trade is part of the solution to challenges we face." WTO News. https://www.wto.org/english/news_e/news22_e/dgno_28jan22_e.htm

World Trade Organization, Communication from the TESSD Coordinators, 18 February 2022, WTO Doc. INF/TE/SSD/W/17/Rev.1. https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/INF/TESSD/W17R1.pdf

World Trade Organization & Convention on International Trade in Endangered Species of Wild Fauna and Flora. (2015). *CITES and the WTO: Enhancing cooperation for sustainable development.* https://www.wto.org/english/res_e/publications_e/citesandwto15_e.htm

World Trade Organization & United Nations Environment Programme. (2009). *Trade and Climate Change*. https://www.wto.org/english/res_e/booksp_e/trade_climate_change_e.pdf

World Trade Organization & UN Environment. (2018). *Making trade work for the environment, prosperity and resilience*. https://www.wto.org/english/res_e/publications_e/unereport2018_e.htm



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