



Fighting Plastic Pollution:

Taking the First Step, Taking the Next Step

19 April 2023

Trade-related measures employed in the fight against plastic pollution:

What Do We Know?

Ieva Baršauskaitė, Senior Policy Advisor, IISD

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International Institute for
Sustainable Development

Methodology

What we did and how

- Objective: deeper understanding of scope, focus and diversity of trade-related measures notified by the WTO members targeting the reduction of plastic pollution, as collected in EDB.
 - Focus on reduction measures: not measures aiming to increase trade in «better» plastics
 - Overview: distribution by region, development, type of measures, types of plastics
 - Zoom-in on bans and prohibitions
 - Highlighting the diversity of approaches on most commonly used measures
 - Suggested ways to build on existing measures when considering next steps
- 211 plastics-related notifications; 93 unique «reduction» measures by 70 WTO members.

Note: This research did not undergo full quality review and any errors or inaccuracies are the responsibility of the authors.

WTO's data collection

Available information on trade-related measures to reduce plastic pollution

One database to rule them: the Environmental Database (EDB)

Main WTO bodies dealing with trade-related measures aiming to reduce plastic pollution:

- TBT Committee
- Import Licensing Committee
- Market Access Committee
- SPS Committee
- SCM Committee
- GPA Committee

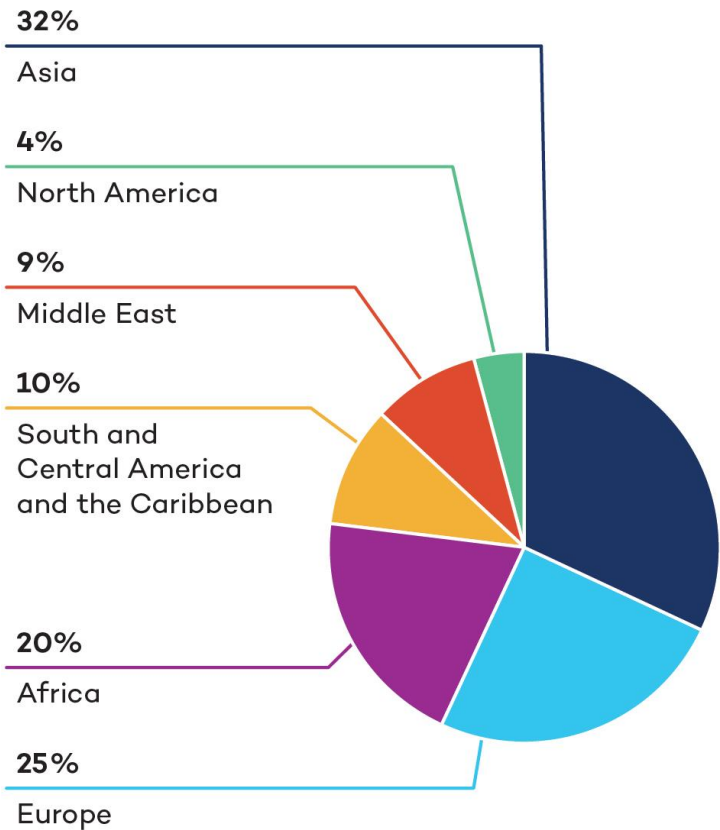
No notification obligations of specific measures to CTE or CTD

What data is not being collected by the WTO?

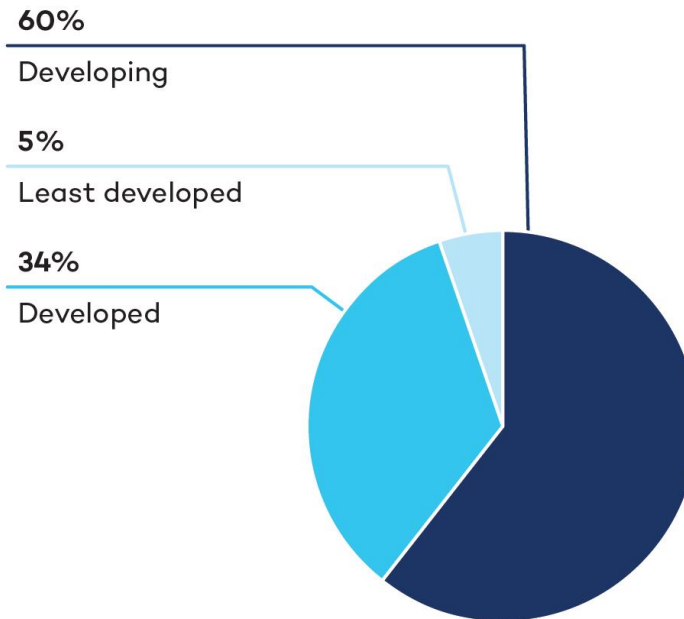
Who's notifying?

93 relevant measures notified by 70 members

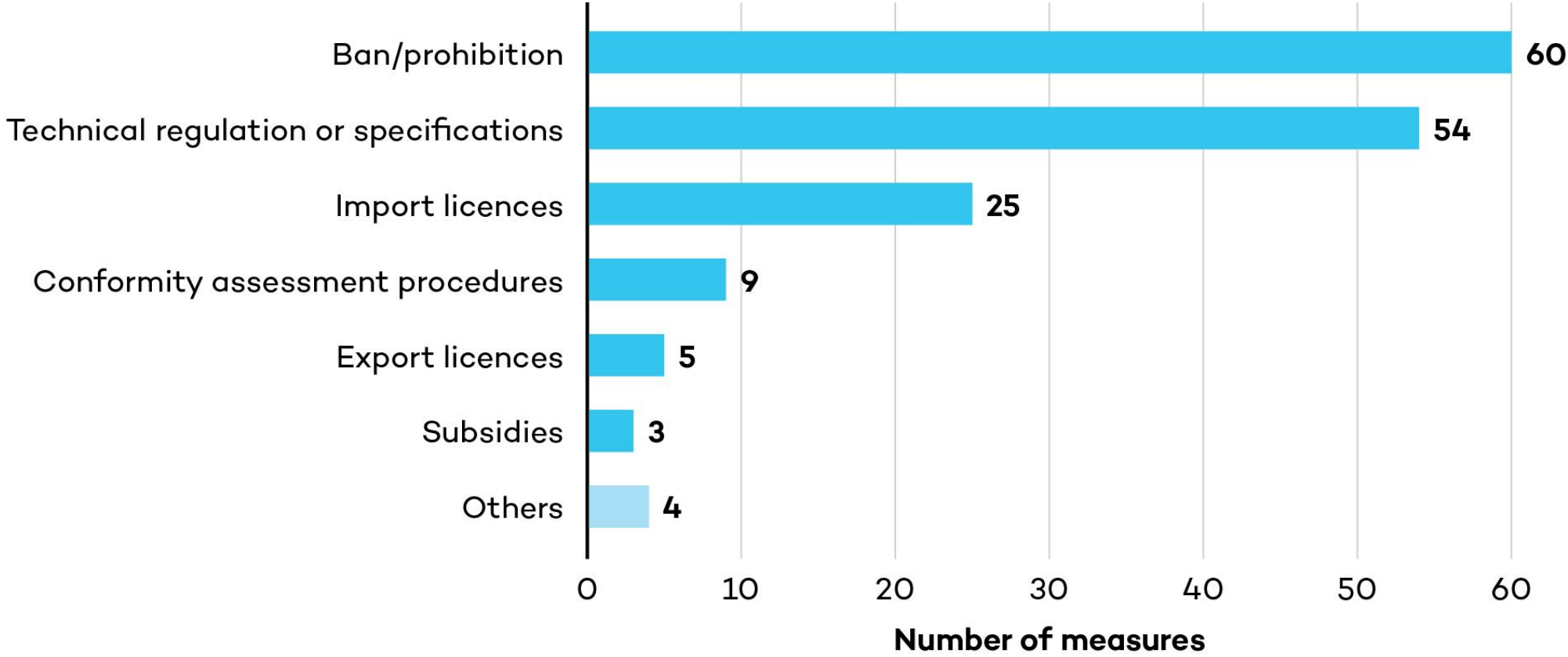
By region



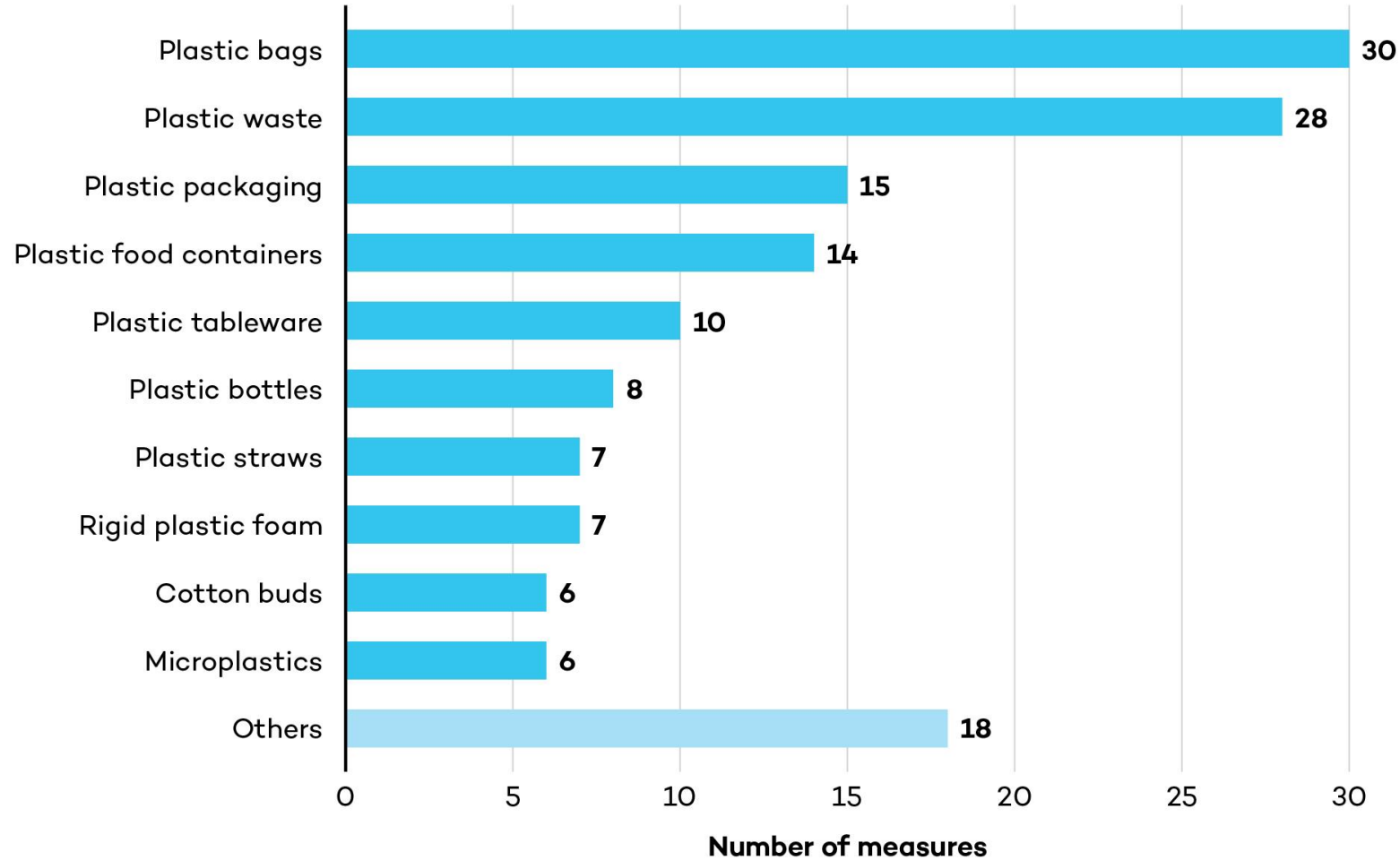
By development status of notifying member



Types of measures notified:

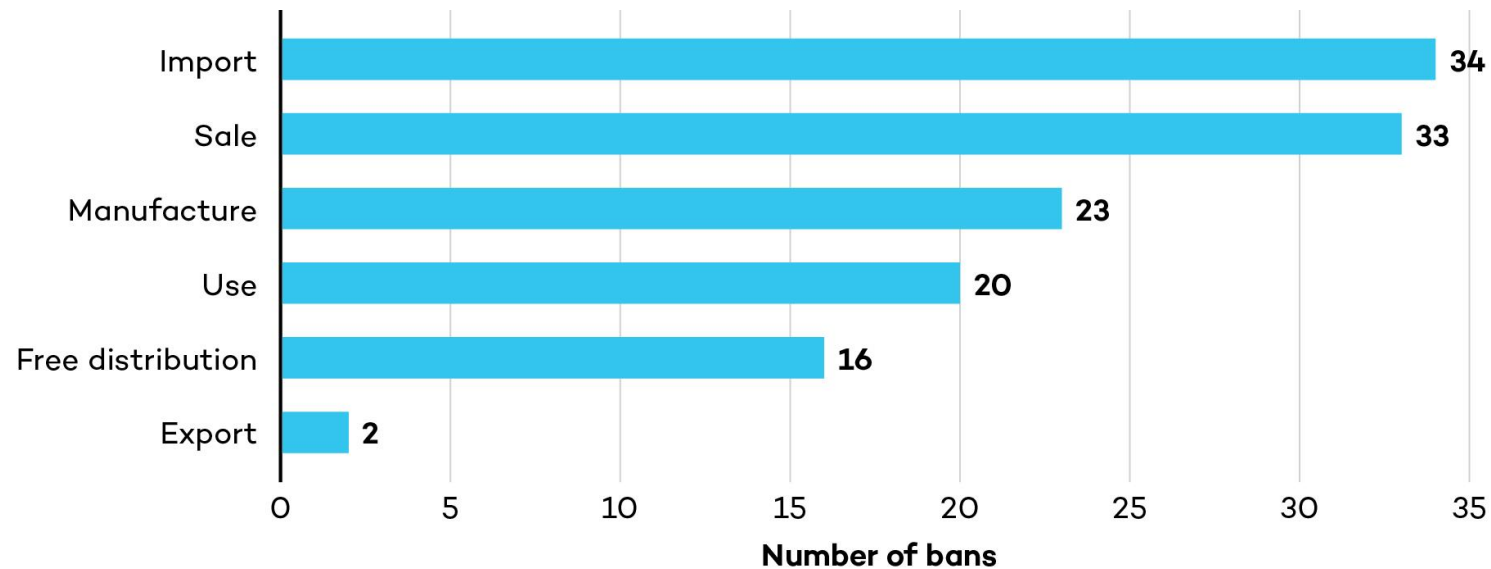


Types of plastics targeted by "reduce" measures:



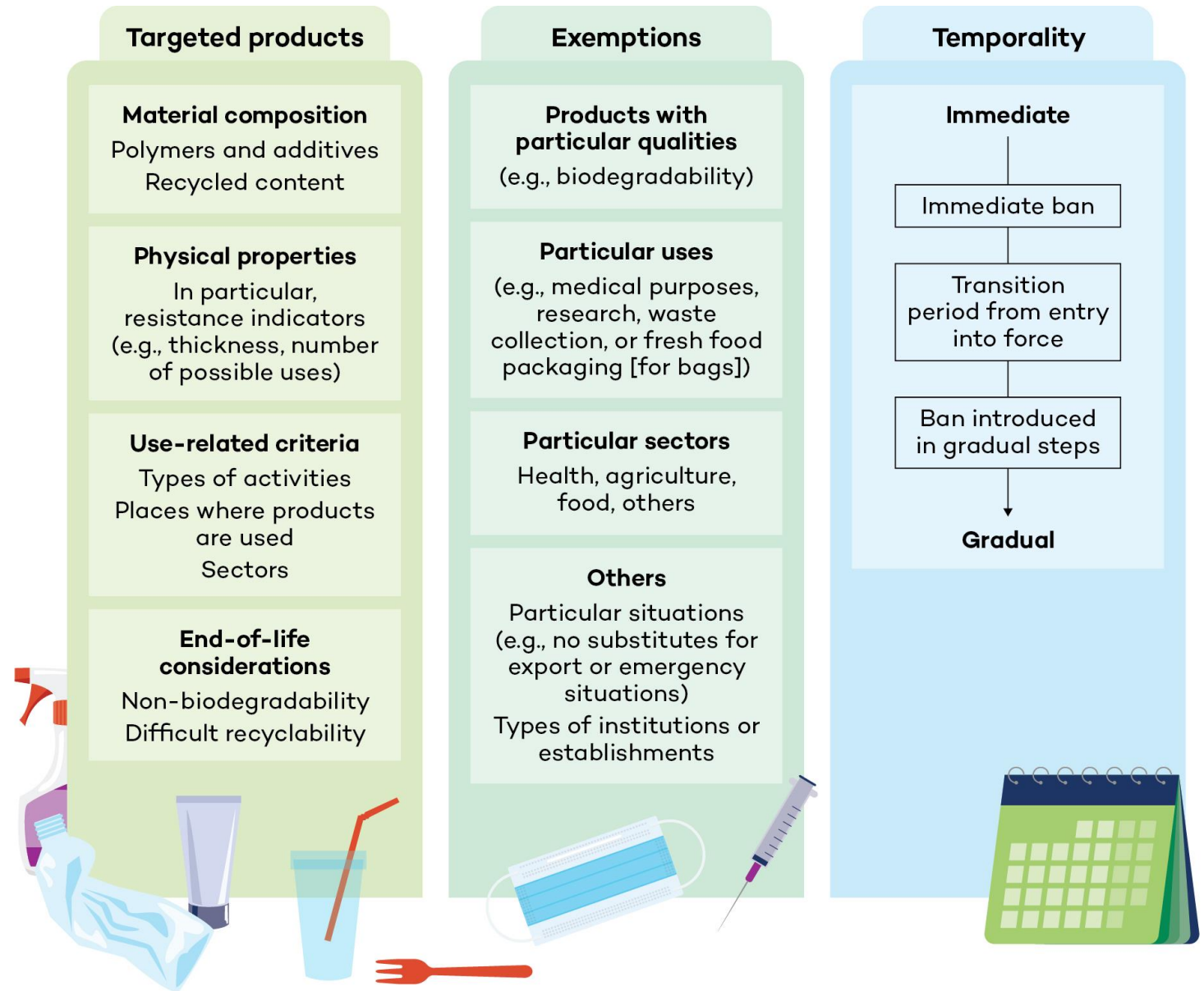
A zoom on the most common type of measures: bans

What "activities" are covered by bans?



- 60 bans overall.
- Same targeted products as for all measures.
- Focus on retail, food, and cosmetics.
- Case of plastic waste.

Three key dimensions of plastics-related bans



Where do (notified) prohibitions exist?



Product	Members with notified bans
Plastic bags	Afghanistan, Albania, Bahrain, Burundi, Congo, Côte d'Ivoire, Ecuador, France, Kenya, Mauritius, New Zealand, Oman, Paraguay, Senegal, Seychelles, Togo, Ukraine, Uruguay
Plastic food containers	Ecuador, Chinese Taipei, European Union, South Korea, Macao, Mauritius, New Zealand, Seychelles, United Kingdom, United States of America
Plastic packaging	Burundi, Chinese Taipei, Congo, Ecuador, France, South Korea, Togo, United States of America
Plastic tableware	Ecuador, Chinese Taipei, European Union, Macao, Mauritius, New Zealand, Seychelles, United Kingdom
Plastic straws	Belize, European Union, Mauritius, New Zealand, Seychelles, United Kingdom
Cotton buds	European Union, France, Italy, New Zealand, United Kingdom
Rigid plastic foam	Ecuador, European Union, South Korea, Seychelles, United States of America
Microplastics	Canada, Chinese Taipei, France, Italy, Sweden, Switzerland
Plastic bottles	Ecuador, European Union, South Korea
Others	Ecuador, Bahrain, Congo, European Union, Japan, South Korea, Mauritius, Moldova, New Zealand, Russian Federation, Thailand, United Kingdom

Beyond prohibitions

Less employed instruments?

- **Technical regulations: labelling, EPR schemes, waste management requirements**
 - **Government procurement requirements**
 - **Subsidies for recycling**
-
- **Is there space for others? Are transparency problems obstructing the visibility?**

Pathways forward

How can WTO members build on existing measures?

Enhanced transparency and experience sharing

Can more comprehensive information about plastic pollution reduction measures be shared across WTO bodies (or compiled) on a regular basis and discussed in a coordinated way?

Geographic expansion and best practices

Can discussion at the WTO:

- help more members consider whether to implement measures that have already been identified as priorities and taken by others?*
- help foster more coherence and convergence around best approaches?*

Thematic scope expansion

- Can discussion at the WTO help identify whether particular types of products, or parts of the plastics economy, are currently not (or rarely) targeted by members but deserve to be?*



Thank You!

iisd.org

Email: ibarsauskaite@iisd.org

tirschlinger@iisd.org

DETERMINING THE SCOPE OF TRADE-RELATED PLASTICS POLICY

4\19

Fighting plastic pollution: taking the first step, taking the next step
WTO, Geneva, Switzerland
Rachel Karasik



Duke


NICHOLAS INSTITUTE
for ENERGY, ENVIRONMENT
& SUSTAINABILITY

Goal of the study

To measure the extent to which trade policy has been used to address plastic pollution, understand its role in a coordinated international government response to the problem.

Trade-related plastics policy are policies (e.g. laws, regulations, action plans, standards) that include at least one instrument that may affect trade of plastic between countries.

Research Approach


Step 1 Review 211 member state notifications to WTO (2009 - 2021). Identify and screen the policy documents referenced in notifications


Step 2 Review the policy documents retained for analysis to identify and characterize trade-related policy instruments


Step 3 Summarize published evidence of effectiveness of trade-related plastics policies

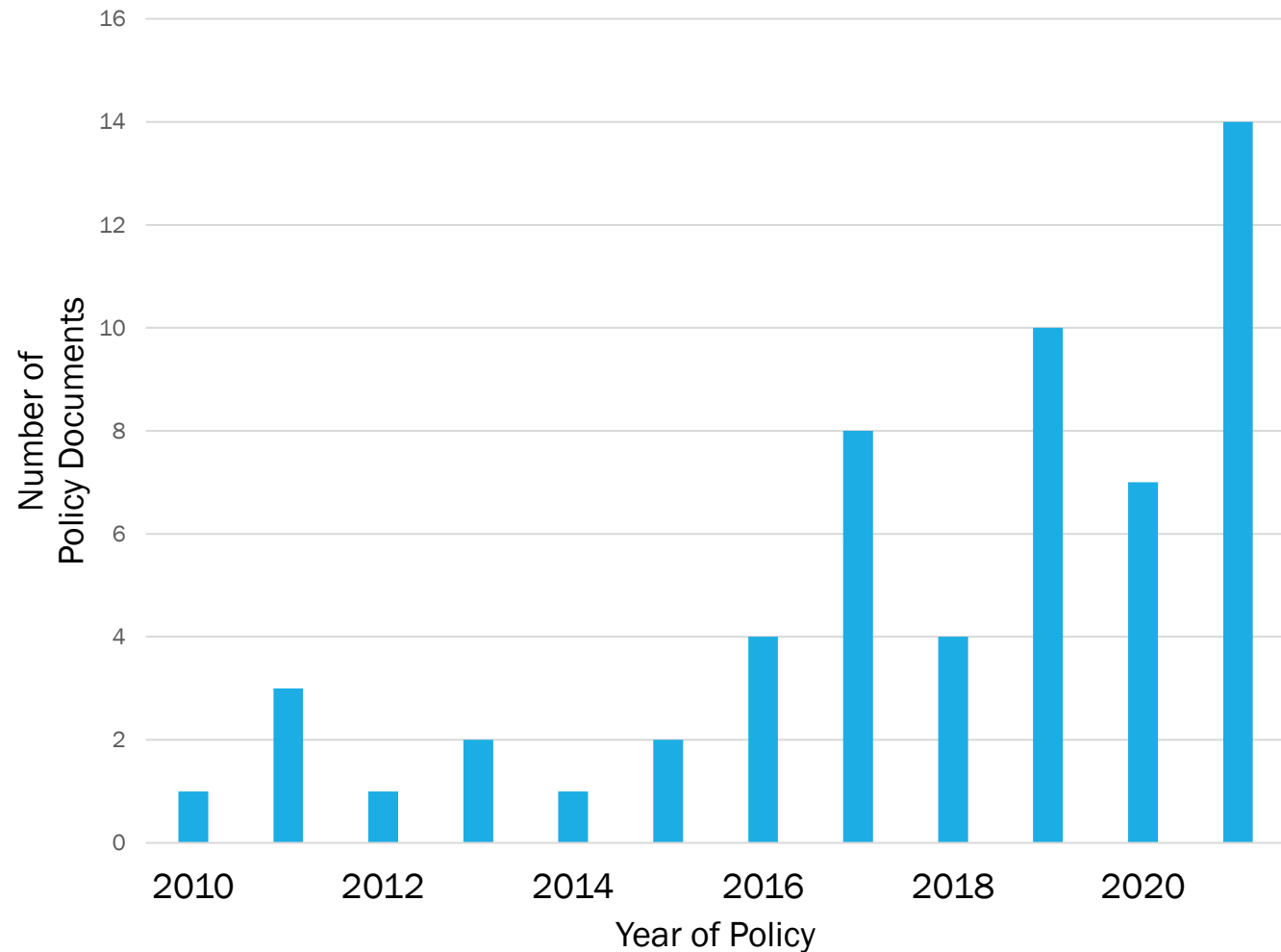
- Began with 211 notifications
- 98 notifications linked to trade-related policies in inventory
- 62 trade-related policies (due to multiple notifications)
- 57 trade-related policies from 2009 - 2021

Research Question 1

How many governments have notified (i.e. self-reported) trade-related plastic policies to the WTO? How does this set of policies compare to the global landscape of plastic policies?

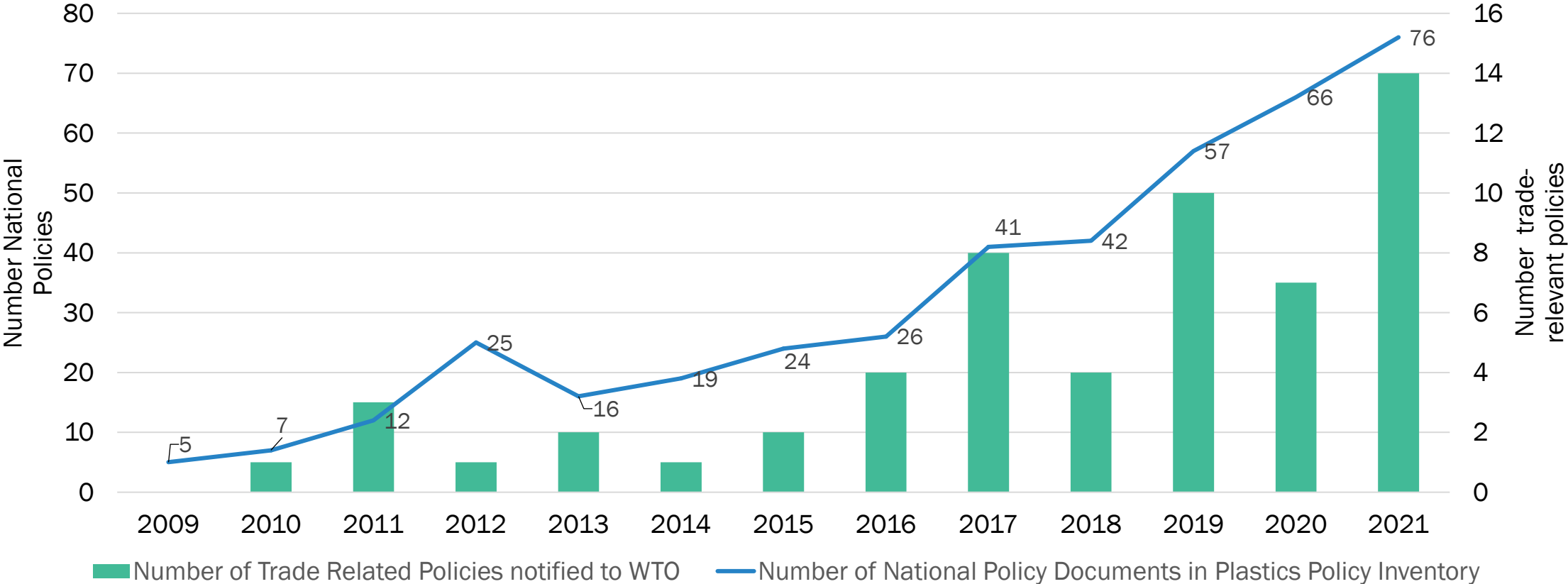
Use of trade-related policies to address plastic pollution is increasing globally

Number of Trade Related Policies notified to WTO (2009 - 2021)
(n = 57)



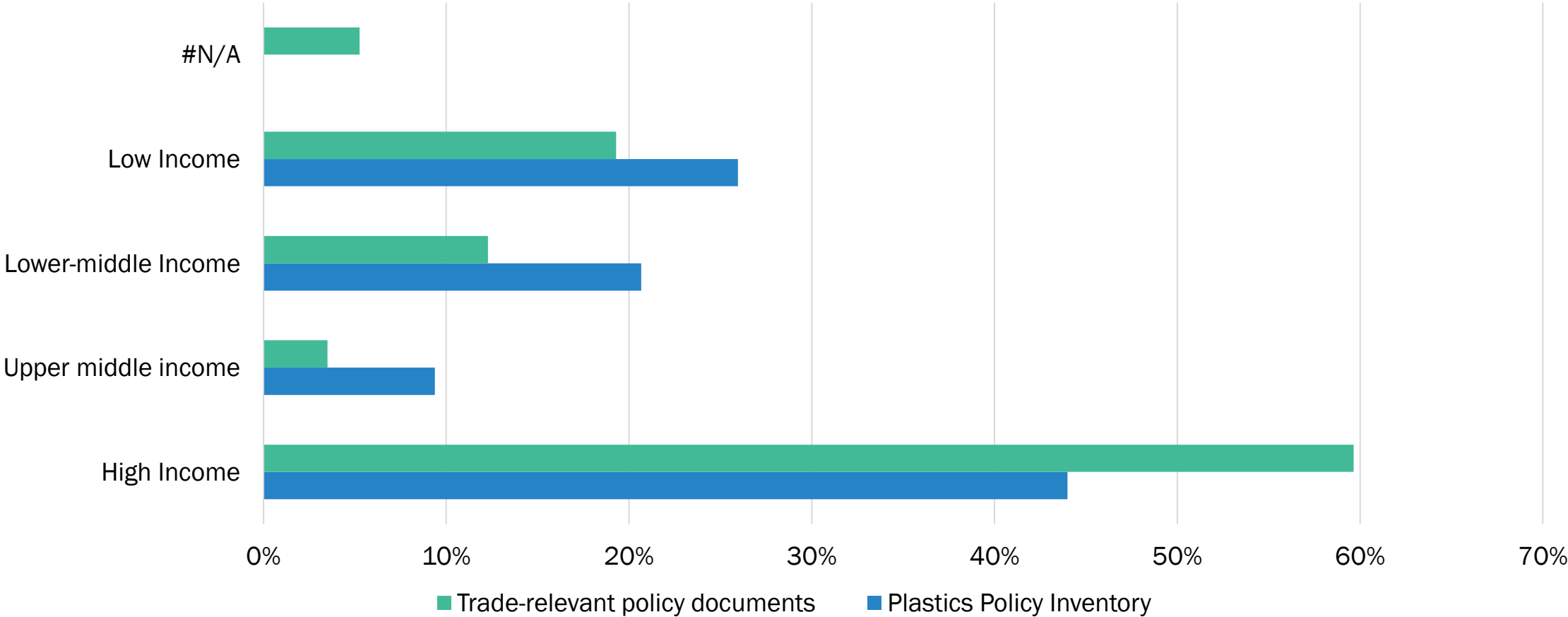
Trade-related plastics policies notified to WTO comprise 12.5% of the national plastic policy landscape globally

Trend of Policy Adoption (trade-related vs. all national)

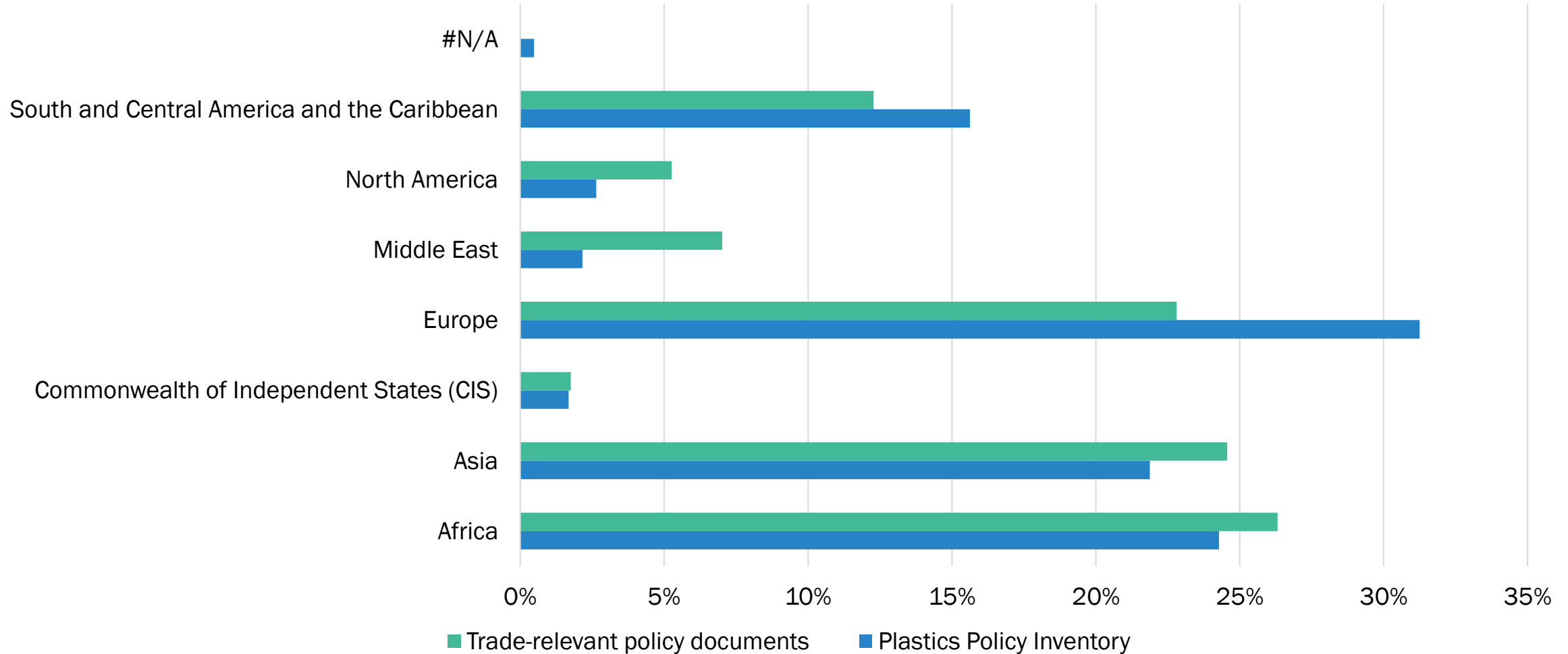


Of the countries estimated to be the 10 largest generators for plastic waste (Law et al. 2020), only four have trade-related plastic policies in the sample analyzed, plus the European Union

Proportionally more high-income countries reporting to WTO compared to global landscape



Proportionally varying distribution of region groups reporting to WTO compared to global landscape



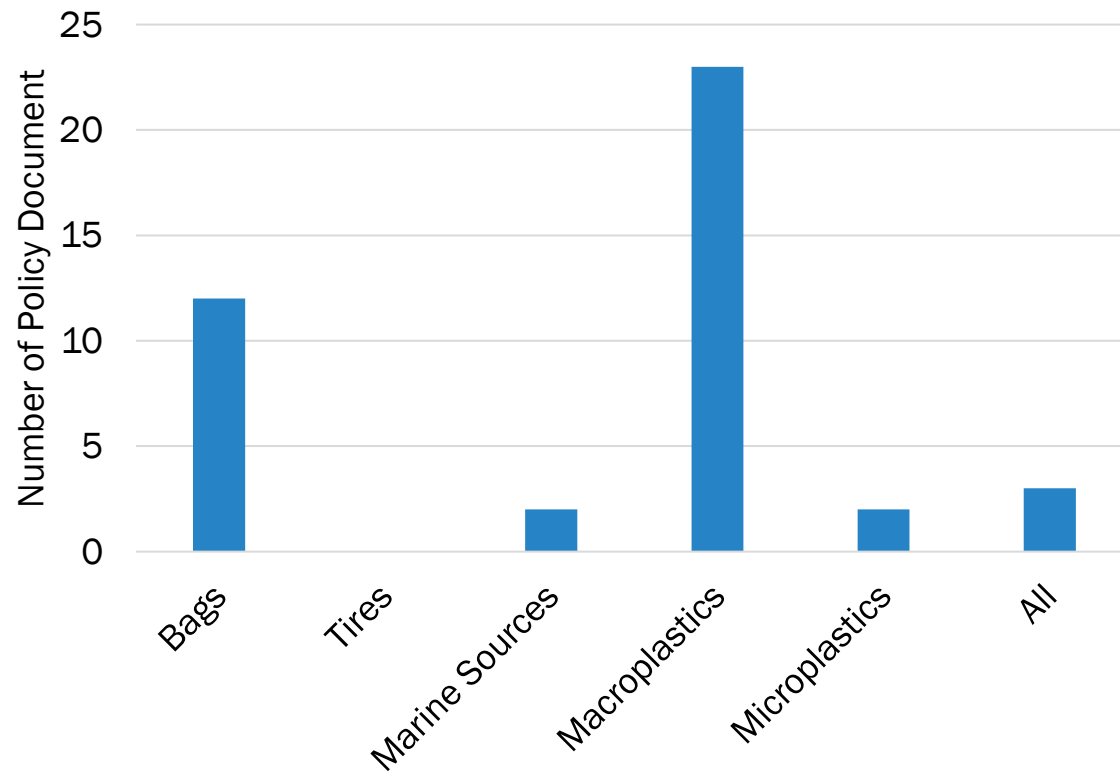
Research Questions 2 & 3

Are there likely trade-related policies that governments have used but not notified to the WTO?

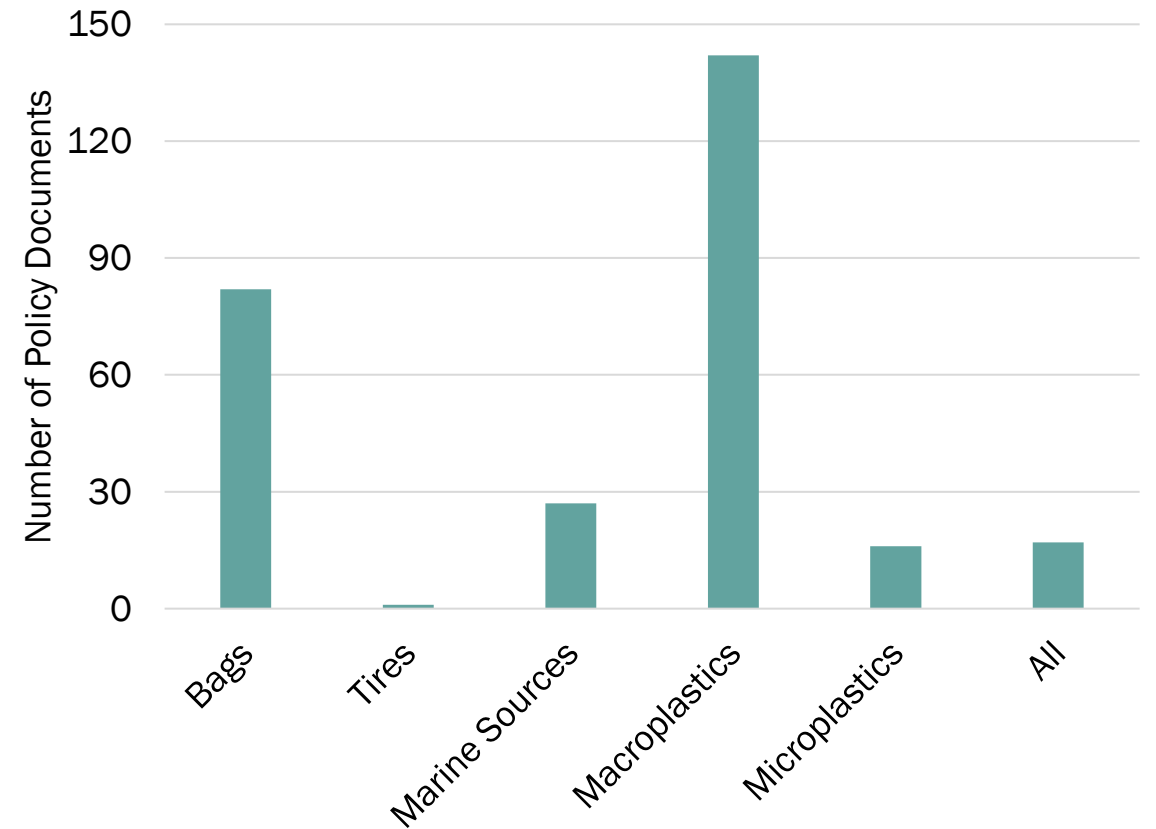
Are trade-related policy instruments used with other policy instruments by national governments?

Trade-related policies are largely focused on different types of macroplastics and plastic bags – similar to all plastic policies

Number of trade-related plastic policy documents (2009 – 2021) (n=36)*

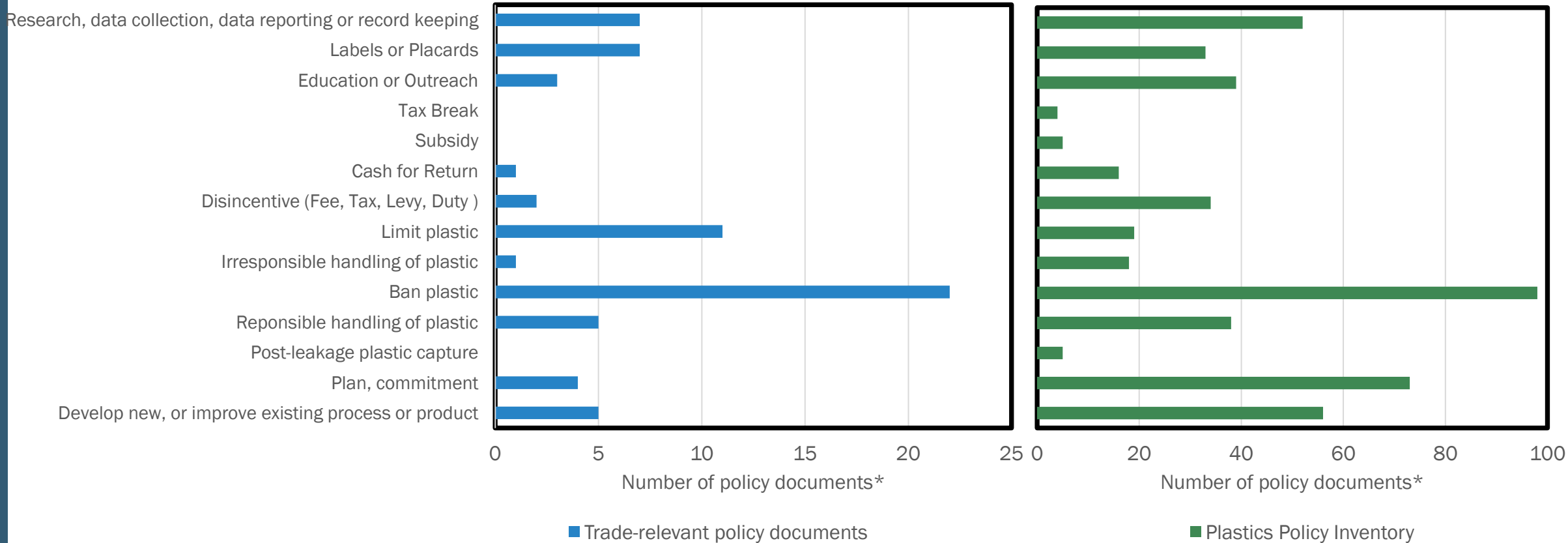


Number of national plastic policy documents (2009 – 2021) in Plastics Policy Inventory (n=208)*



* Some policies target multiple types of plastics.

Policy instruments commonly and rarely used in trade-related plastic policies, as compared to global landscape of plastic policies



* Some policies use multiple types of policy instruments

Policy design
characteristics
currently
underutilized in
trade-related policies

- Instrument types
 - *Post-leakage capture*
 - *Economic instruments (deposit return schemes, subsidies)*
- Life-cycle stages
 - *Collection*
 - *Disposal*
 - *Recycling*
 - *Reuse*
- Plastic types
 - *Microplastics*
 - *Marine sources of plastic*

It's not just about trade...

- The trade-related plastics policies notified to the WTO and analyzed were largely product bans (often bags) that specified **imports among other life cycle stages**, rather than solely targeting trade in plastic inputs, products and waste
- Over half (53%, n=19) of the trade-related policies in the sample analyzed are bans of **single-use plastics that target imports, as well as other stages of the life cycle** (e.g. a ban on the ‘manufacture, import, distribution and sale’ of plastic bags)
- Similarly, two trade-related policies target **manufacture and import of microplastics** (e.g. microbeads)

A smaller number of policies exclusively target trade,
e.g. waste import bans

- Smaller number of trade-related plastics policies analyzed (25%) include instruments that **exclusively target trade**. These are largely import bans of plastic products or waste, and to a lesser degree labelling requirements for imports

Research Question 4

What evidence has been published on the effectiveness of these trade-related policy instruments in reducing plastic pollution?

What do we know about trade-related plastics policy effectiveness?

Only a handful of the hundreds of studies reviewed are trade-related policies notified to the WTO

- **Malaysia case study:** Following suspensions on plastic waste imports requiring issuance of plastic waste import permits in 2018, the government **closed up to 148 illegal plastic recycling plants** in the country (Chen et al. 2021)
- **Vietnam case study:** Limits on the import of plastic waste have been **reported as ineffective** by scholars (Dang et al. 2021) due to weak regulations monitoring processes and enforcement
- **China case study:** One study found that **plastic waste imports decreased by 7.88 million tons in 2018** (Kumamaru and Takeuchi 2021). Another study observed the effect on US plastic waste exports and recycling, reporting that **volume of plastic waste disposed in landfills in the country increased by just over 23%** after the Sword policy was introduced (Vedantam et al. 2022)

Challenges in monitoring the use of trade-related plastics policies

- Inconsistent reporting and definitions hinder monitoring of the use of trade-related plastics policies
- Some policies not found; others not translated
- Researcher judgement to identify the policy instruments with trade implications, as some trade-related plastic policies will include instruments not trade-related
- Limited effectiveness studies
- Uncertainty in evaluation methods in effectiveness literature

Notifying Member	Coverage of the measure	ICS – HS codes
Macao SAR, China	Disposable Foamed Plastic Tableware, including: <ul style="list-style-type: none"> • Disposable foamed plastic food box (ex. 3923.10.00); • Disposable foamed plastic bowls and cups (ex. 3923.90.00, ex. 3924.10.00); • Disposable foamed plastic plates (ex. 3924.10.00) . 	470710;470720;470730;470790;97.040.60
Chinese Taipei	Polyvinylchloride (PVC)	02;03;04;07;08;09;10;11;12;14;15;16;17;18;19;20;21;22;2501;3003;3004;3006;39;83.020;83.040.01;83.040.30;83.080;83.140.01;83.140.99
Paraguay	Plastic bags and biodegradable bags	

Key takeaways

- Plastic policies frequently have a trade dimension, though they are **likely not notified to the WTO** – making monitoring of current trends and potential impact difficult
- Trade-related plastic policy often focuses on banning or limiting **bags, SUPs, or plastic waste across the entire life cycle**. Rarely focuses exclusively on imports/exports
- Compared to global landscape of policies, trade-related plastic policies **do not focus on: reuse, microplastics, marine sources, post-leakage capture, or economic (e.g. subsidies)**
- Plastics in international supply chains face a patchwork of different regulations. **The WTO may provide a useful forum to enable a globally coordinated response to plastic pollution**, in the absence of coordinated approaches (e.g. regulations, standards)



THANK YOU

Rachel.karasik@duke.edu

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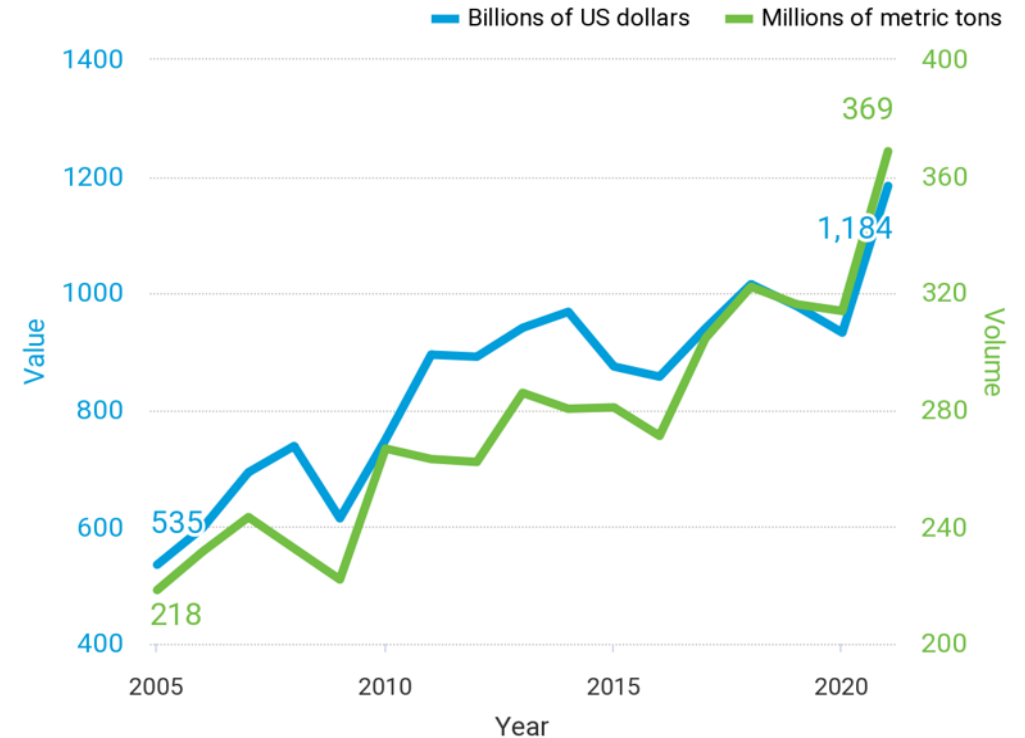
April 19, 2023

Pew

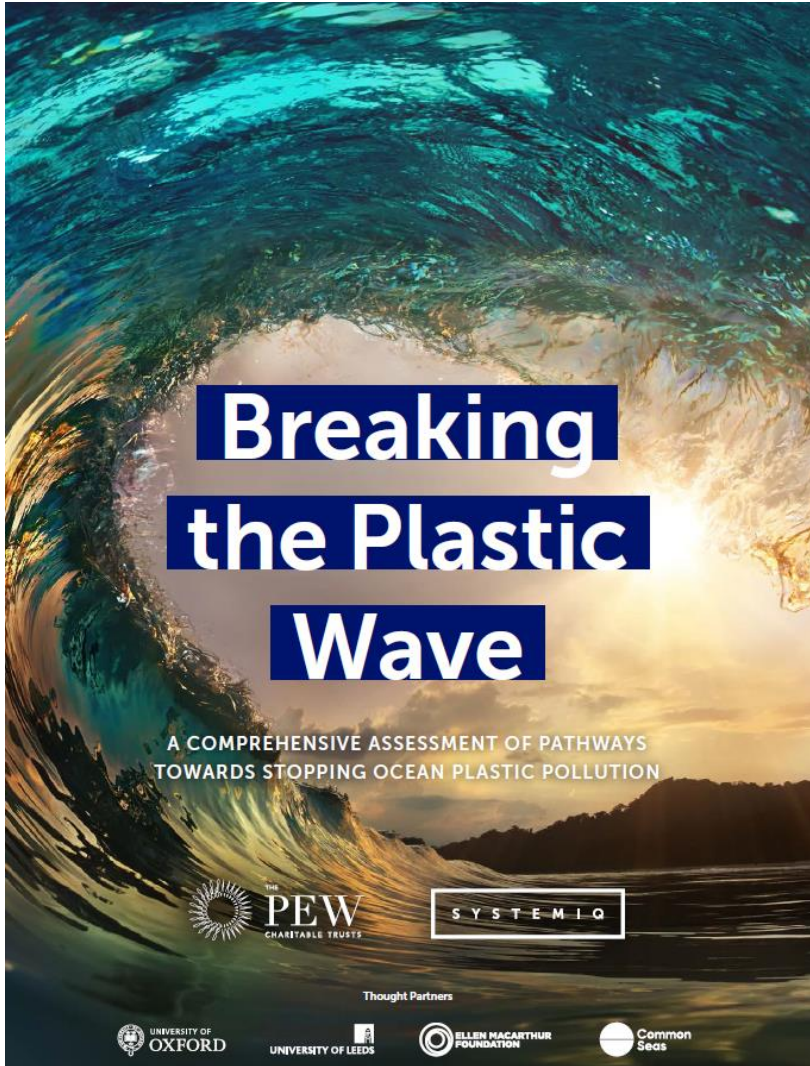
Trade is an essential part of the plastics ecosystem

The soaring global plastics trade

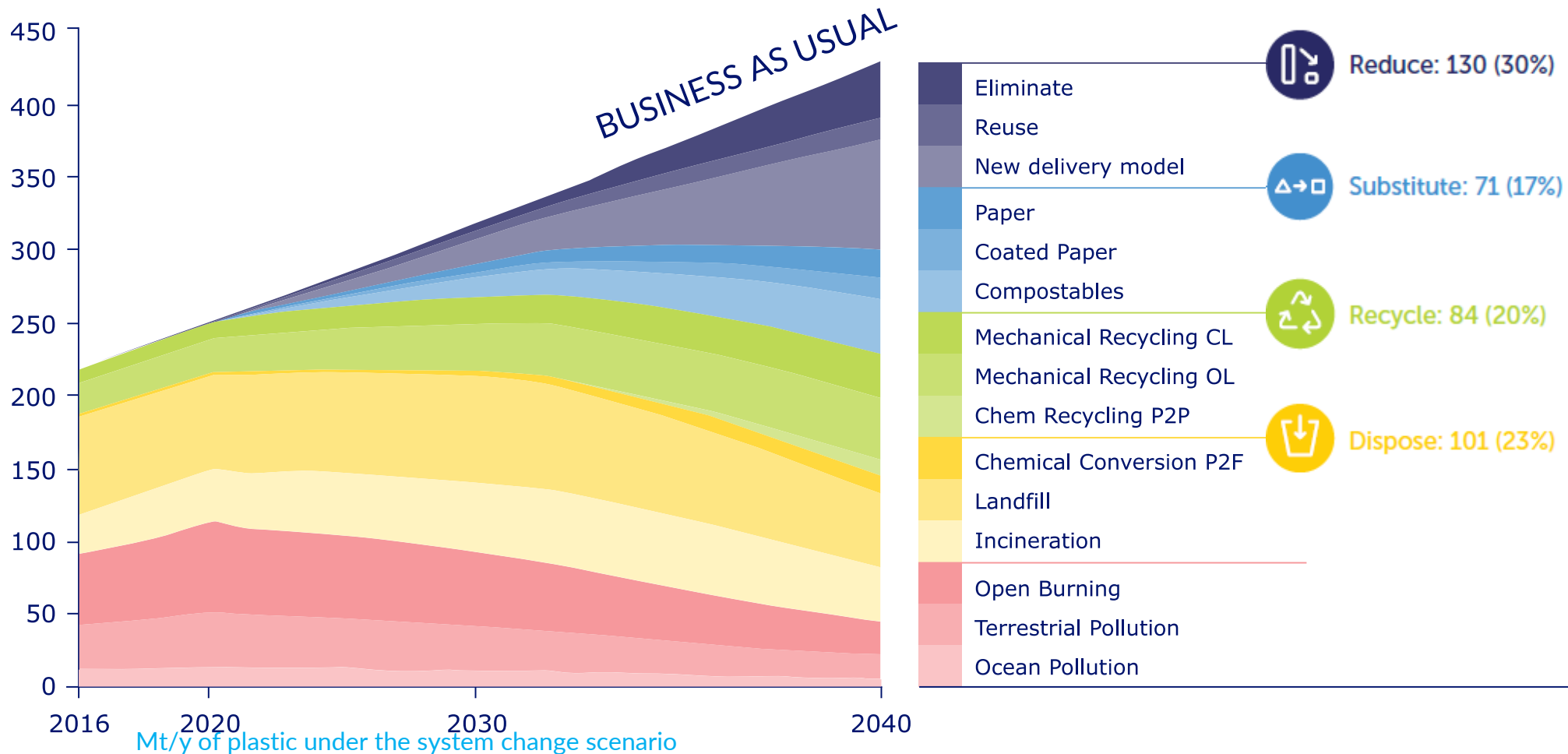
Value and volume of global plastic goods exports between 2005 and 2021, billions of US dollars, millions of metric tons



Source: UNCTADstat based on calculations using UN Comtrade
Note: Total plastics trade has been aggregated across five stages of the life-cycle of plastics: primary forms of plastics, intermediate forms of plastics, intermediate manufactured plastic products, final manufactured plastic products, and plastic waste. The hierarchy table used for the aggregation of Harmonized-System six-digit is available on the UNCTADstat Classifications website.



We have the tools today to reduce plastic pollution



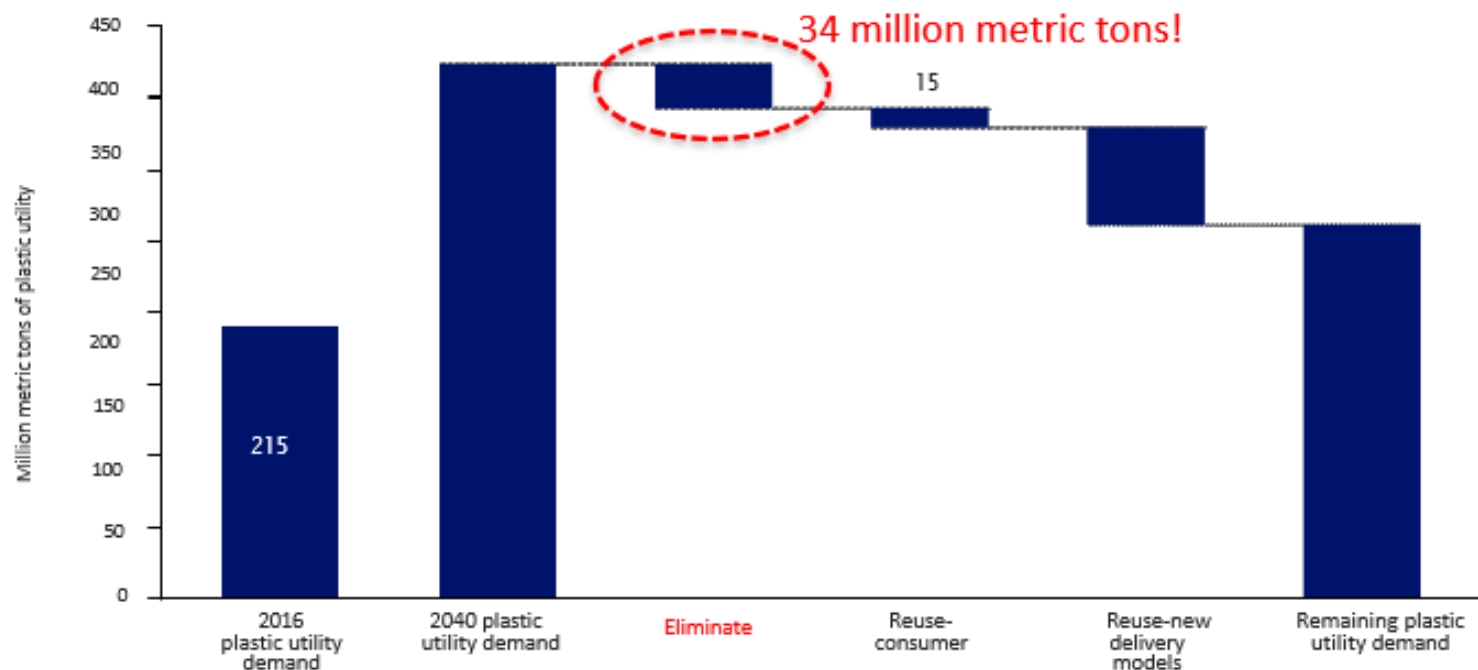
System Change in the next 20 years

- 30%** REDUCE PLASTIC USE
- 17%** SUBSTITUTE WITH ALTERNATIVE MATERIALS
- 2X** DOUBLE MECHANICAL RECYCLING
- 11%** REDUCE VIRGIN PLASTIC PRODUCTION

Reduce = Eliminate, Reuse

Utility demand in 2016 and 2040, and how it is met by the three Reduce levers in the System Change Scenario

Avoidable plastic accounts for 30 per cent of total plastic waste generation in 2040 under Business-as-Usual



This figure shows plastic utility demand (in other words, plastic waste generated under BAU) in 2016, 2040, and in 2040 after the Reduce levers are applied. The respective per cent of plastic waste in 2040 that is reduced by each lever is 8 per cent, 4 per cent and 18 per cent, for a total reduction of 125 million metric tons or 30 per cent of projected 2040 utility demand.

Which plastics should we eliminate?

- Five product types contribute 85% of all plastic leaking into the ocean
- Reduce is an important solution
 - 25% of monomaterial films
 - 45% of carrier bags
 - 43% of bottles
 - 44% of sachets and multilayer films

System change and the future of plastic products

Changing the plastic system would secure a world in which many of the single-use plastic products we know and use today would be eliminated or replaced by reusable items and new delivery models. Nonrecyclable and hard-to-recycle plastics could be substituted to paper or compostable materials, with the remaining plastic waste being recycled at much higher rates, resulting in much less plastic polluting the environment.

% of Business-as-Usual demand of the following products:

🗑️ Reduced
↔️ Substituted
♻️ Recycled
🗑️ Disposed
🗑️ Mismanged

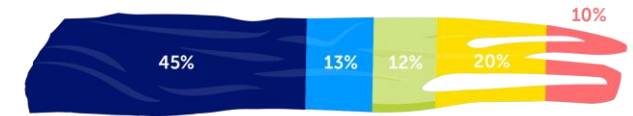
Monomaterial films (e.g., cling film, flow wrap, pallet wraps)



Five product types/applications contribute to **85%** of all plastic leaking into the ocean today. Taking action across the global plastics system would lead to many of these plastic product types/applications being removed, substituted or recycled by 2040.

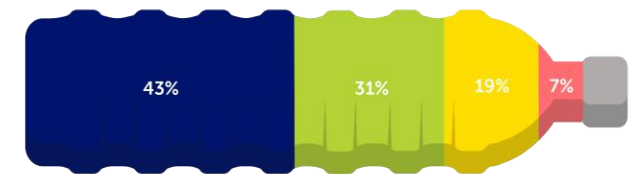
58% of monomaterial films can be avoided through reduction measures and substitution to paper and compostable alternatives.

Carrier bags (e.g., grocery bags, shopping bags)



45% of bags can be avoided through bans, incentives, and reuse models.

Bottles (e.g., water bottles, drinks, cleaning products)



The recycling rate of rigid monomaterial plastic would **double** compared with today.

Sachets and multilayer films (e.g., condiment and shampoo single-portion sachets; coffee, chips, and sweets packets)



In 2016, **48%** of these plastic products were mismanged. Under the System Change Scenario, the mismanged rate for these products could drop to **12%**.

Household goods (monomaterial and multimaterial plastic objects, e.g., pens, toys, combs, toothbrushes, durable goods, buckets)



The recycling rate of household goods **nearly quadruples** compared with today.

**“A journey of a thousand miles begins
with a single step.”**

Lao Tzu

1. Phase-in solutions

- Focus on eliminating avoidable plastics in the near-term
- Expand policies geographically and thematically
- Not all plastic applications require a substitute
- Consider how to phase-in solutions for other “wedges” concurrently



2. One size doesn't fit all

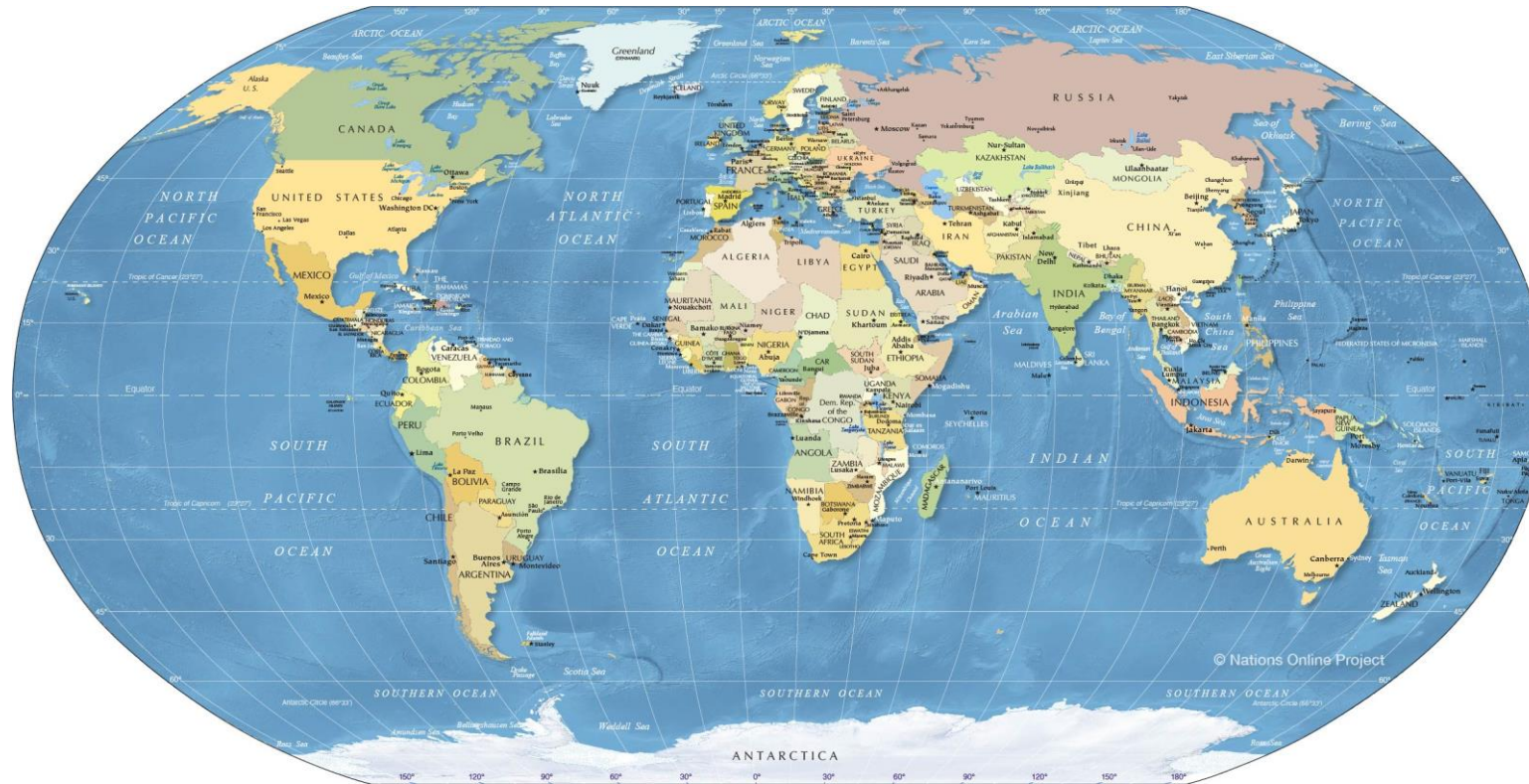
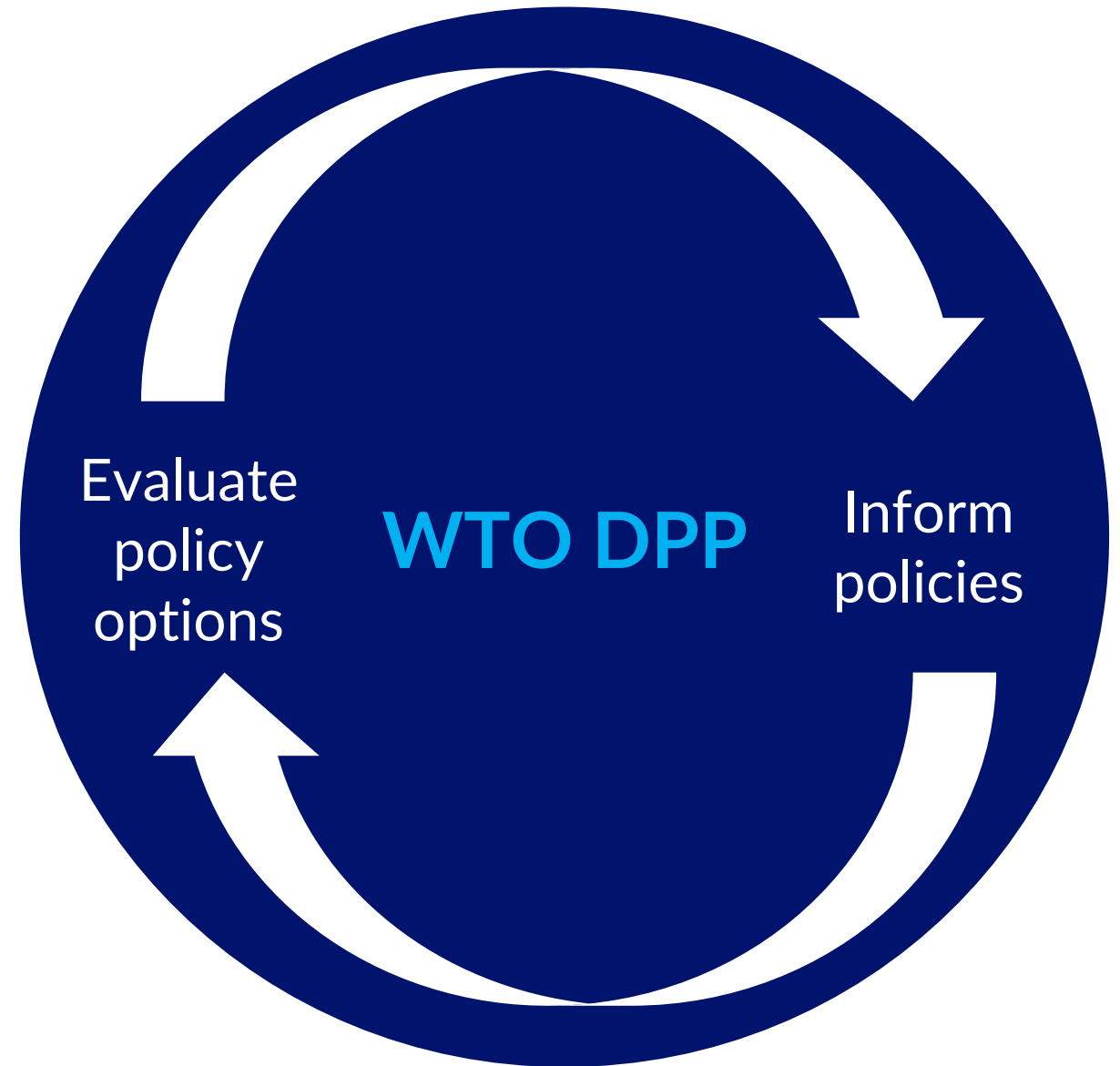



Image: Nations Online Project

3. Learn and feedback as we go

- MC13 is the next important milestone
- Consider future workplan, too
- Think about how to leverage DPP for policy coherence
- Intra- & inter-governmental cooperation needed



Solutions & Interventions

 **REDUCE** (eliminate, re-use)

 **SUBSTITUTE** (paper, glass,...)



 **DISPOSE** (landfill, incineration,...)

 **RECYCLE** (mechanical, chemical)

 **COLLECT**

Thank you!

Find the *Breaking the Plastic Wave* report:

<https://www.pewtrusts.org/en/research-and-analysis/articles/2020/07/23/breaking-the-plastic-wave-top-findings>

Contact me: Megan Jungwiwattanaporn

mjungwiwattanaporn@pewtrusts.org

Pew

A photograph of a beach heavily littered with plastic waste, including bottles, containers, and pieces of driftwood. The ocean is visible in the background under a cloudy sky.

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