

Sustainability criteria and trade in global plastics instrument

SPREP regional meeting

-10 August 2023-





UNITED NATIONS
UNCTAD

The distinction between plastic substitutes and plastic alternatives

Plastics substitutes are natural materials that have similar properties to plastics, while plastic alternatives include bioplastics or biodegradable plastics.

Plastic substitutes	VS	Plastic alternatives
Mineral, plant, marine or animal	ORIGIN	Bioplastics or Biodegradable plastics
Recyclable, reusable, biodegradable, compostable, or erodable	PROPERTIES	Recyclable, biodegradable, or compostable (end of life)
Should have lower environmental impact along their life cycle	IMPACT	Should have lower GHG lifecycle emissions when compared to plastics
Should not be hazardous for human, animal or plant life	SAFETY	Should not be hazardous for human, animal or plant life
Non-plastics		Better plastics

Source: UNCTAD Vivas Eugui & Pacini (2022). UNCTAD, based on presentation on plastic substitutes HS codes, Life-cycle analysis and tariffs considerations. WTO Dialogue on Plastics.





UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Plastic Pollution

The pressing case for natural and environmentally friendly substitutes to plastics

 **United Nations**
Geneva, 2023



HS Chapter	Description	Number of 6-digit HS Codes
04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, n.e.c.	1
05	Animal originated products; not elsewhere specified or included	3
07	Vegetables and certain roots and tubers; edible	8
08	Fruit and nuts, edible; peel of citrus fruit or melons	2
11	Products of the milling industry; malt; starches; inulin; wheat gluten	3
12	Oil seeds and oleaginous fruits, ..., industrial or medicinal plants; straw and fodder	7
13	Lac; gums, resins and other vegetable saps and extracts	4
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	4
15	Vegetable waxes (other than triglycerides); whether or not refined*	1
17	Sugars and sugar confectionery	2
20	Preparations of vegetables, fruit, nuts or other parts of plants	1
23	Food industries, residues and wastes thereof; prepared animal fodder	4
28	Inorganic chemicals; organic and inorganic compounds of precious metals...	2
29	Organic chemicals	2
32	Glass; glass frit and other glass, in the form of powder, granules or flakes*	1
39	Cellulose; Natural polymers...	5
40	Rubber	4
41	Raw hides and skins (other than furskins) and leather	12
42	Articles of leather,....,articles of animal gut (other than silkworm gut)	1
44	Wood and articles of wood; wood charcoal	43
45	Cork and articles of cork	7
46	Manufactures of straw, esparto or other plaiting materials; basketware...	8
47	Pulp of wood or other fibrous cellulosic material; recovered (waste and scrap)...	17
48	Paper and paperboard; articles of paper pulp, of paper or paperboard	31
50	Silk	10
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	25
52	Cotton	3
53	Vegetable textile fibers; paper yarn and woven fabrics of paper yarn	19
54	Man-made filaments; strip and the like of man-made textile materials	4
56	Wadding, felt and nonwovens, special yarns; twine, cordage, ropes and cables...	4
57	Carpets and other textile floor coverings	1
63	Textiles, made up articles; sets; worn clothing and worn textile articles; rags	2
67	Feathers and down, prepared; and articles made of feather or of down	1
68	Stone, plaster, cement, asbestos, mica or similar materials; articles thereof	1
69	Ceramic products	4
70	Glass and glassware	9
76	Aluminium and articles thereof	17
94	Furniture,.... not elsewhere specified or included	4
95	Toys, games and sports requisites; parts and accessories thereof	4
96	Miscellaneous manufactured articles	1

Reducing plastic use is the best way to prevent it becoming waste or hazardous waste.

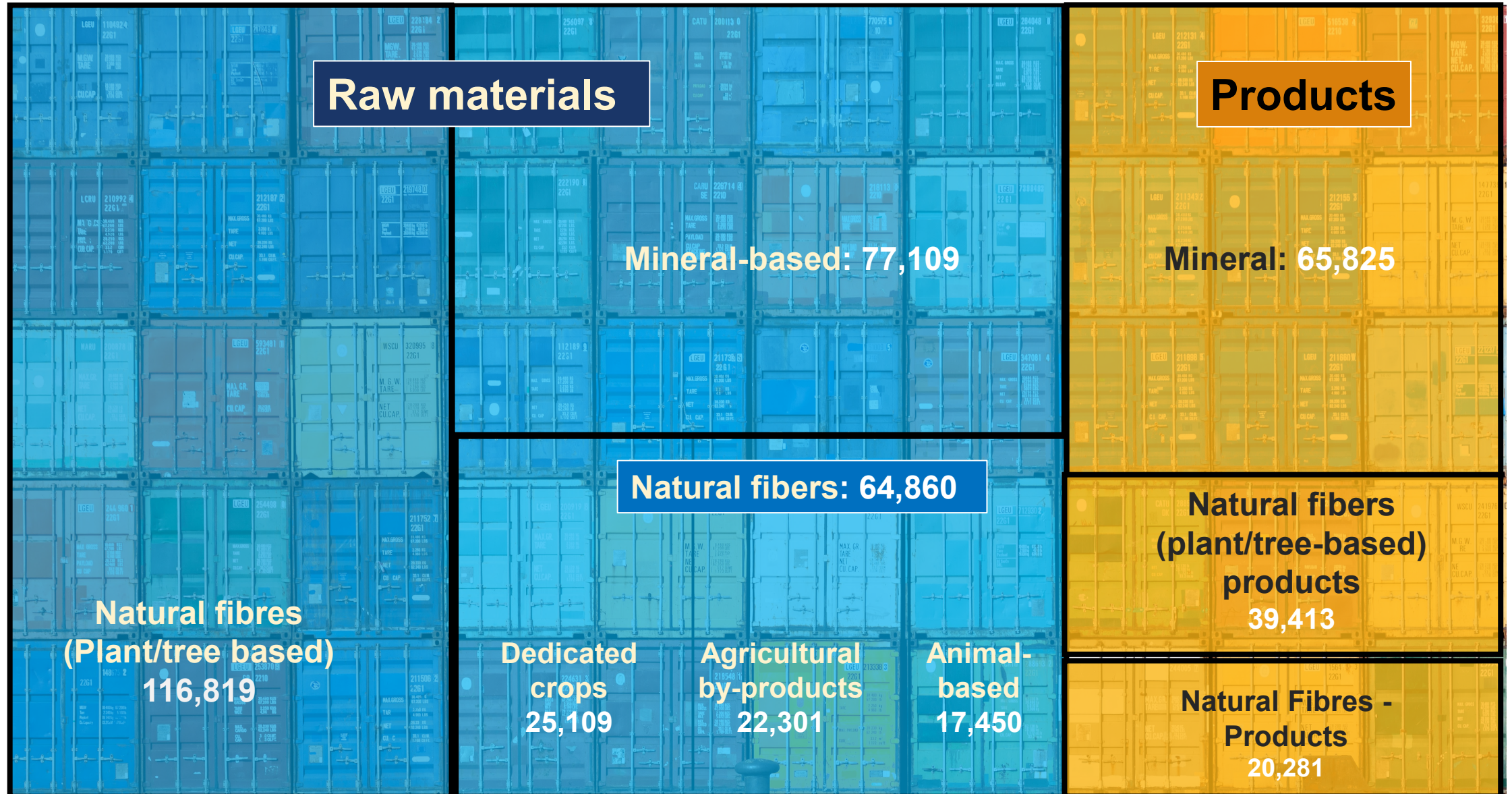
Substitutes can contribute significantly to this aim. A mapping of HS codes of potential plastic substitutes resulted in...

282 HS codes identified
(6-digit)



Trade value of plastics substitutes

Export represented \$388 billion, approximately 2/3 represents exports of raw materials (\$258 billion)

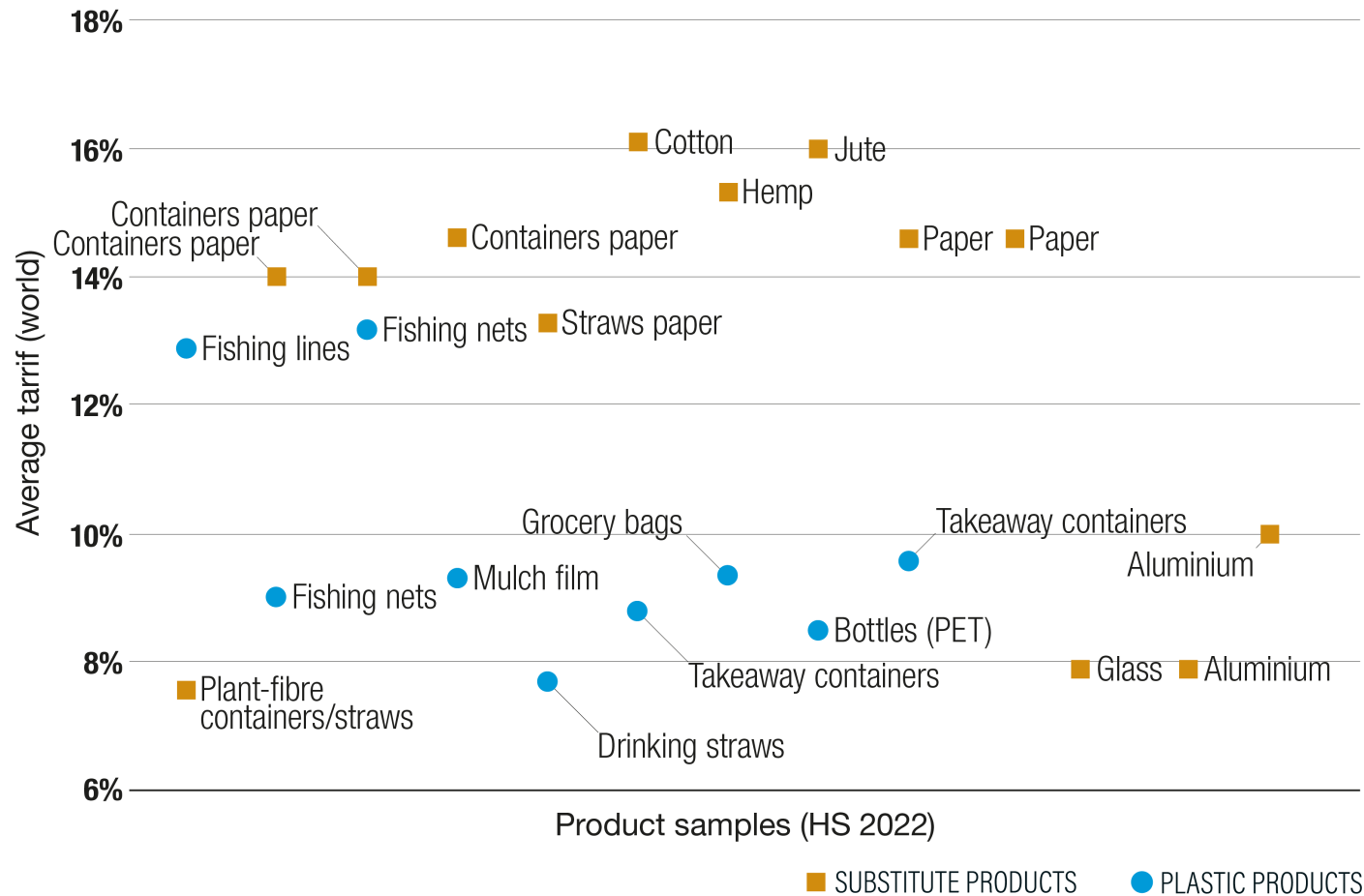




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Average import tariffs on plastic products vs material substitutes

Substitutes often face higher import tariffs than their plastic equivalents.



Important to promote more policy coherence in tariff schedules vis-à-vis potential control measures and incentives

Source: UNCTAD, based on OEC data 2020 and HS 2022 codes.

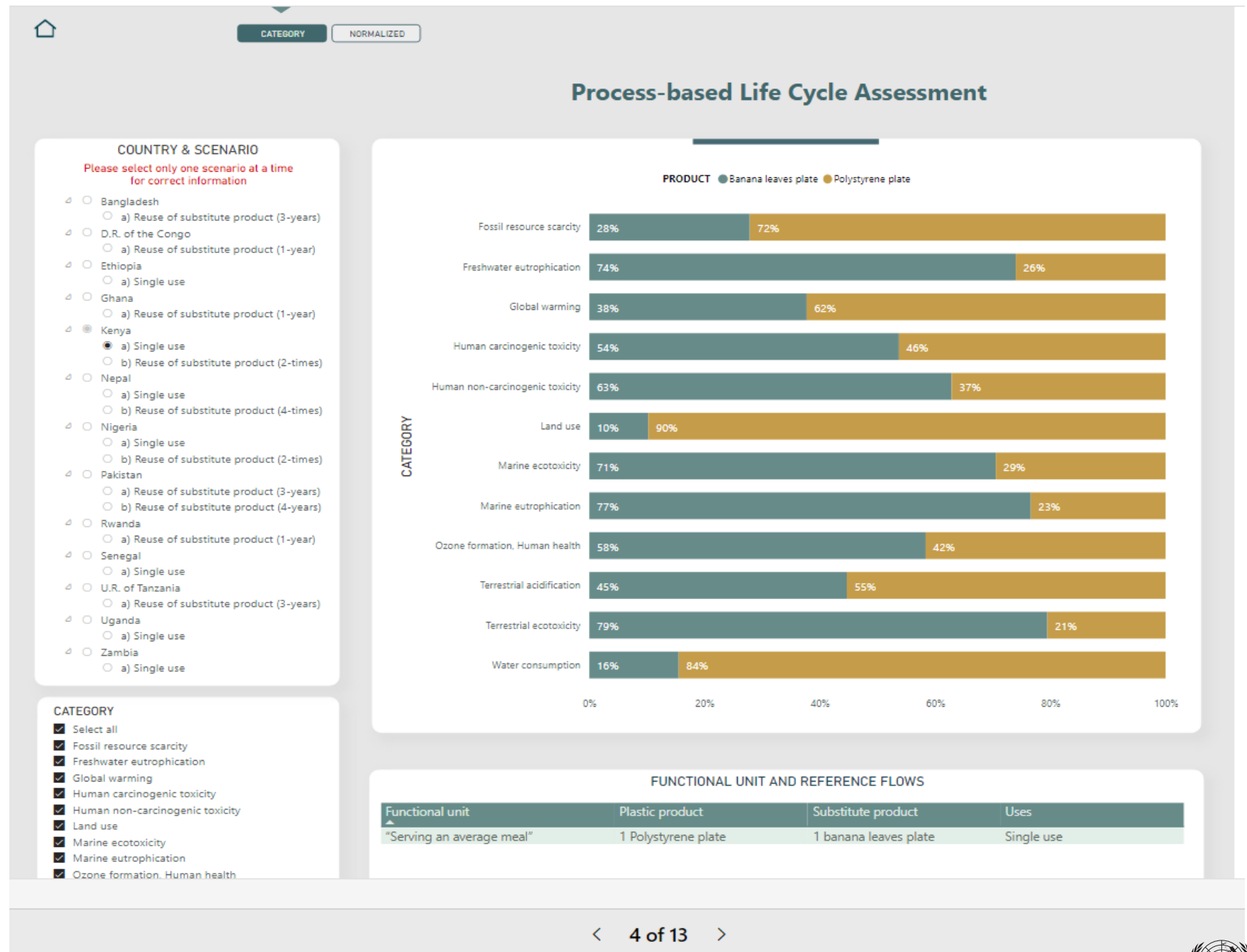
Note: Aluminium, paper, container paper and fishing nets are repeated because of different items represented in different HS codes.



Life Cycle Analysis of substitutes is important as substitutes have varying environmental impacts.

UNCTAD's plastics-substitutes dashboard allows analysis of single-use plastics compared to single-use material substitutes & reusables.

Importantly - reuse is fundamental for better environmental performance.



Questions on plastic alternatives (bioplastics and biodegradable plastics?)

- Are bioplastics and biodegradable plastic waste covered by Basel's plastic amendments?
- Some HS codes used for trade of biodegradable plastics by the private sector include:
 - HS 3907 Polyacetals, other polyethers and epoxide resins, in primary forms; polycarbonates, alkyd resins, polyallyl esters and other polyesters, in primary forms
 - HS 3913 Natural polymers (e.g., alginic acid) and modified natural polymers (e.g. hardened proteins, chemical derivatives of natural rubber), n.e.c. or included, in primary forms
 - HS 3919 Self-adhesive plates, sheets, film, foil, tape, strip and other flat shapes, of plastics, whether or not in rolls
 - HS 3920 Plastics; of polymers of propylene, plates, sheets, film, foil and strip (not self-adhesive), non-cellular and not reinforced, laminated, supported or similarly combined with other materials
 - HS for “other” under the above



HS codes for plastics are based on visible product characteristics – not on their production method or impact on the environment



HS codes related to biodegradable fishing gear

1. HS Code: 39079
 2. HS Code: 5608.1
 3. HS Code: 5608.1
 4. HS Code: 5608 F
- Please note that HS codes provid

No existing

	TÜV AUSTRIA		
	OK biodegradable MARINE : Initial acceptance tests		
	Doc Ref : OK12-e	Edition : A ¹	
	Application Date : 01 April 2019	Page : 4 / 5	
	Replace :		

7.2 Basic Requirements

The approach for the evaluation of a finished product formed by different components is described in document ref. TS-OK-17.

The measurement of the density of the material or product is required and can be determined by using the Material Safety Data Sheet.

7.2.1 Biodegradation

The period of application for the biodegradation test shall be of maximum 6 months.

The required percentage of biodegradation is 90 %, absolute or relative.

The biodegradation test is a marine biodegradation test according to ASTM D 6691.

Chemically unmodified materials of natural origin shall not automatically be accepted as being biodegradable without testing.

For test materials/products, the percentage of biodegradation shall be at least 90% in total or 90% of the maximum degradation of a suitable reference substance after a plateau has been reached for both test material/product and reference substance after 6 months of testing.

Organic constituents which are present at concentrations of less than 1 % do not need to demonstrate biodegradability. However, the sum of such unproven constituents shall not exceed 5 %.

7.2.2 Disintegration

in the

What sustainable criteria for non-plastic substitutes and alternatives? How could these criteria become objective?

Proposals at IDP:

1. Environmentally sustainable
2. Effective and
3. Subject to re-use

Proposals at INC:

1. Safety
2. Sustainability
3. Availability
4. Affordability
5. Accessibility
6. Review across life cycle

In the works (1)

Mapping of services relevant to mitigate plastic pollution

1. Review existing research and analyze trade-in-services related to plastic pollution prevention, management, and remediation.
2. Identify and classify services relevant to plastic pollution mitigation using international trade classifications (EBOPS, W/120, UNCPC, ISIC) and expert input.
3. Collect data from sources like the WTO Services database and UNCTAD Stats.
4. Analyze market access and barriers for plastic pollution-related services, considering regulatory factors.
5. Provide policy recommendations, best practices, and incentives for utilizing services to reduce plastic pollution.

In the works (2)

Deep dive into special sectors relevant to mitigate plastic pollution

1. Agriculture mulch; fishing nets; food packaging, reforestation/agricultural seed pots.
2. One case to be in Pacific
3. Cooperation with Curtin University (Australia)

In the works (3)

Empirical examination of business models and policy lessons from FCDO-UNCTAD 10-project SMEP programme portfolio

1. Business inputs-output analysis (business metabolism)
 1. Recyclers, upcyclers, material-transition initiatives (e.g. biodegradable mulch, fish nets)
2. Empirical insights to inform INC & DPP processes

In the works (4)

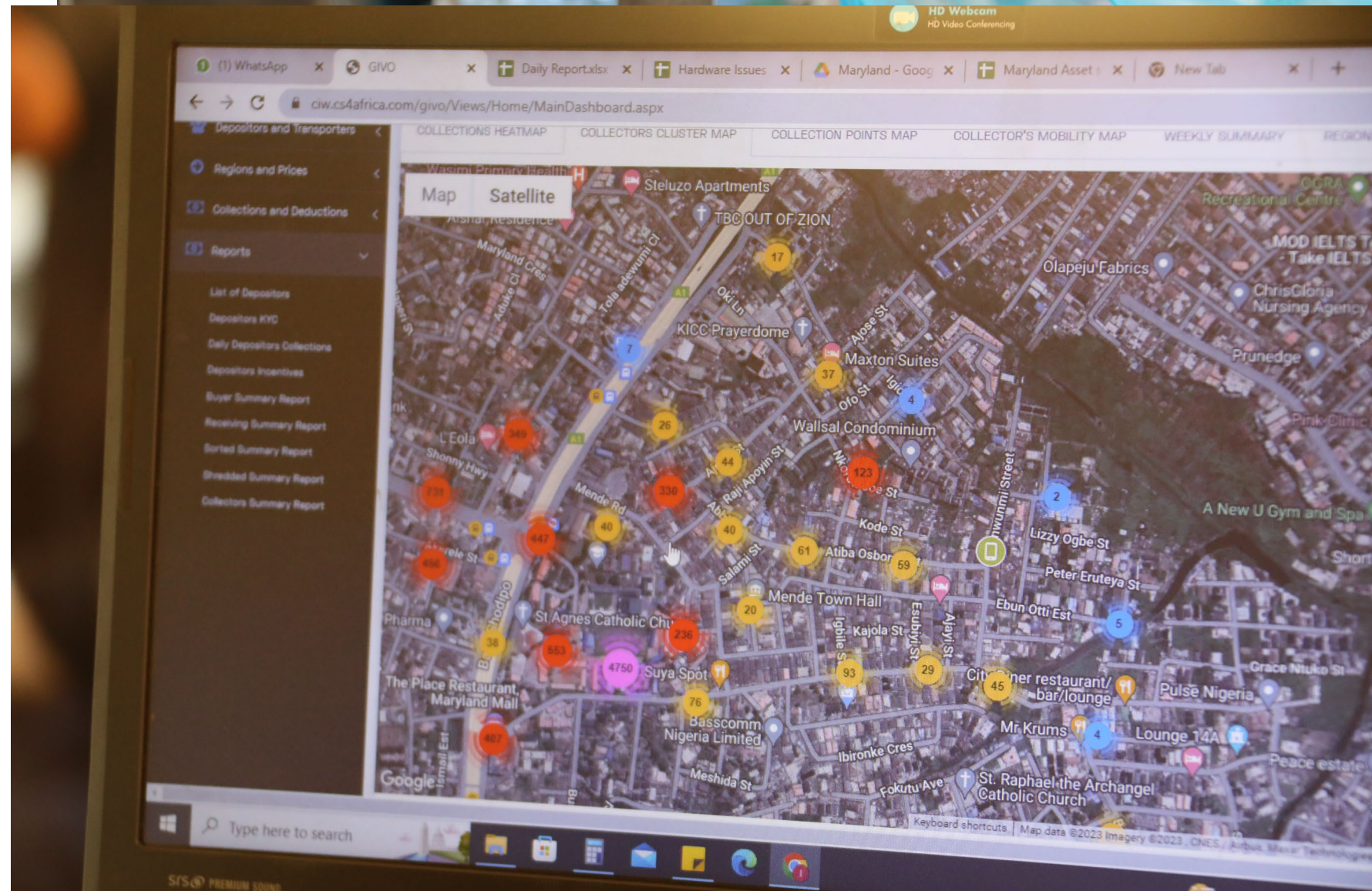
Extension of life-cycle analysis of plastics towards initial estimation of impacts on human health

1. Based on empirical projects (SMEP portfolio)
2. Considering chemical aspects (incl contamination/exposure risks) & non communicable diseases.

Field projects

* - empirical insights covering products and services trade

Organisation / Project name	Consortium members / partners	Brief description/title of project	Geography
Blue Skies Pty Ltd.	Waitrose & Partners	Blue Skies aim to establish a multi-stakeholder R&D hub, which addresses single-use plastic in the agri-business to the point-of-sale value chain. The hub will initially address single-use plastic in disposable workwear and agri-film.	Ghana
Chinhoyi University of Technology (CUT)	Kudiwa Waste and Energy Solutions	Utilising plastics waste as a feedstock, Chinhoyi University will be establishing a manufacturing facility for plastic roof tiles with solar power	Zimbabwe



Comparative blueprints...

- Certification system for Biofuels (EU 2009/28/EC)
- Certification system for Forestry / Timber products

- Public / Private systems

CONTROL AND MITIGATION MEASURES ACROSS EACH STAGE OF THE PLASTICS VALUE CHAIN

Control measures applicable to plastics are being discussed as one of the main tools for a legally binding instrument on plastic pollution , including in the marine environment. This table summarizes several options, covering both trade / border measures and internal market measures , which can be adopted by countries. Control measures can help steer economies away from harmful, problematic, single-use plastics and at the same time help to promote more sustainable material substitutes and alternatives.		RAW MATERIALS Hydrocarbons	UPSTREAM Polymer pellets	MIDSTREAM Products and parts	DOWNSTREAM Plastic waste or residues	RECOVERY From land or water bodies
INTERNAL MARKET MEASURES	MONETARY AND ECONOMIC INSTRUMENTS • Environmental or chemical taxes applicable to plastics; • Packaging and recycling fees; • Preferential tax treatment to alternatives/substitutes.	×	×	×	×	×
	PUBLIC PROCUREMENT <small>-not including public hydrocarbon enterprises-</small> • Government procurement favouring goods with recycled content; • Procurement of plastic depollution services.			×		×
	SUBSIDIES TO SERVICES • Direct grants to R&D; • Subsidies for recycling or decontamination services imports.	×	×		×	×
	REMOVAL OF SUBSIDIES TO GOODS • Removal of subsidies to fossil fuels; • Remove subsidies from polymer pellets.	×	×			
	OPERATION LICENSES • Authorize operation for polymer production or recycling/recovery services of sufficient quality.	×	×	×	×	×
	LABELLING (TBT) • Labelling requirements clearly indicating polymer and recycled content; • Proper labelling requirements of recycled plastic scrap trimmings or pellets.		×	×	×	
	INVESTMENT REGULATIONS • Authorize operation for polymer production or recycling/recovery services of sufficient quality.	×	×		×	×
	SERVICES LIBERALIZATION & REGULATION • Plastics decontamination services liberalization; • National plastic waste management frameworks.					×
	EXTENDED PRODUCER RESPONSIBILITY • Deposit schemes; • Take-back programmes.				×	
	DESIGN AND QUALITY STANDARDS (TBT) • Exclusion of any hazardous chemicals; • Minimum thickness, reusability, mono-material requirements; • Durability.	×	×	×	×	
	INTERNAL PRODUCTION AND COMMERCIALIZATION BANS OF PLASTIC PRODUCTS			×	×	
	CERTIFICATION AND CONFORMITY ASSESSMENT (SPS/TBT)		×	×		
	RECYCLING TARGETS (ADM)				×	×
MEASURING, MONITORING AND MAPPING OF PLASTIC LITTER (ADM)				×	×	

CONTROL AND MITIGATION MEASURES ACROSS EACH STAGE OF THE PLASTICS VALUE CHAIN

Control measures applicable to plastics are being discussed as one of the main **tools for a legally binding instrument on plastic pollution**, including in the marine environment. This table summarizes several options, **covering both trade / border measures and internal market measures**, which can be adopted by countries. Control measures can help steer economies away from harmful, problematic, single-use plastics and at the same time help to promote more sustainable material substitutes and alternatives.

RAW MATERIALS



Hydrocarbons

UPSTREAM



Polymer pellets

MIDSTREAM



Products and parts

DOWNSTREAM



Plastic waste or residues

RECOVERY



From land or water bodies

		RAW MATERIALS	UPSTREAM	MIDSTREAM	DOWNSTREAM	RECOVERY
TRADE / BORDER MEASURES	TARIFFS	• Preferential or higher tariffs on certain goods.	×	×	×	×
	IMPORT BAN (QR)	• Import ban on imports of single-use plastics causing persistent pollution.			×	×
	IMPORT QUOTAS (QR)	• Limitations on imports of single-use plastics.	×	×	×	×
	IMPORT LICENSES (ILP)	• Import licenses for recyclable plastic waste; • Import licenses for plastic bag components to avoid circumventing.		×	×	×
	EXPORT BAN	• Export ban of polymers, products or scrap material to destinations with limited capacity to process end-of-life materials.		×	×	×
	EXPORT QUOTAS	• Limits on specific polymer or scrap material exports.		×		×
	EXPORT LICENSES	• Adherence to Basel plastic waste amendments / PIC procedure.				×
	EXPORT TAXES	• Explicit tax or via state marketing boards.				×
	TRADE DEFENSE TOOLS	• AD/CVD applied to plastics; • Peace clause so not to apply AD/CVD on material substitutes.	×	×	×	×

Trade instruments especially important for non-plastic producing countries!

Stay tuned: UNDP-UNCTAD Regional Plastic Substitutes Workshop in Suva, Fiji

- September-October 2023
- Focused on material substitutes and green finance
- Reps from Fiji, Tonga, Samoa, Vanuatu, Solomon Islands, Nauru, FSM
- Local focal points: Marissa Asen & Andrea Volentras

Thank you Vinaka vakalevu

david.vivaseugui@unctad.org

Henrique.pacini@un.org

