WORKSHOP ON SUSTAINABLE AND EFFECTIVE SUBSTITUTES AND ALTERNATIVES FOR PLASTICS.

DRAFT AGENDA

Workshop on sustainable and effective substitutes and alternatives for plastics

WTO in collaboration with UNCTAD
6 December 2022
Hybrid event – WTO room (tbc) and online (zoom)
10:00 am – 1:00 pm

The workshop will be structured in three parts: i) opening segment; ii) two work-focused break-out sessions (1h45min divided into two parts each) covering specific topics; and iii) closing plenary where delegations and stakeholders will reconvene. Discussions in the break-out sessions will be facilitated and focus on the guiding questions to each topic (see annex). Delegations and invited stakeholders can choose their preferred break-out session and are asked to participate actively. They are also invited to send written submissions prior to the event to idp@wto.org.

10:00 am **Plenary:**

Welcome remarks by Dialogue Facilitators (Australia and Philippines) and the WTO and UNCTAD Secretariats

Factual report of discussions held at the Dialogue covering the Workshop topics, WTO

Presentation "Plastic pollution: the pressing case of natural and environmentally friendly substitutes to Plastics", UNCTAD

10:30 am – 12:30 pm - **Break-out sessions**

Session 1	**Session 2**
10:30 a. Working definitions for terms relevant to trade in substitutes and alternatives[1]	10:30 a. Illustrative and extended list of material substitutes and material identification exercise
11:25 b. HS code identification exercise, and trade-related measures enabling substitution of single-use plastic products (SUPP) and other "problematic" goods by sustainable materials	11:25 b. Minimum criteria for life cycle analysis, including other considerations such as tradability, non-toxicity, affordability, accessibility, and availability.

12:45 pm 1:00 pm **Plenary:**

Reports of facilitators, round of short reactions by the plenary and conclusion

[1] Tentative definitions for terms such as: plastic; microplastic; plastic substitutes; plastic alternatives; environmentally sustainable; effective (including cost and functionally effective); single-use; reusable; biodegradable; erodible; recyclable; recyclable content; compostable; plastic-related emissions; waste management technologies.

ANNEX – Questions for written submissions by delegations and stakeholders

Break-out sessions will focus on the guiding questions below. Delegations and invited stakeholders are kindly invited to send written answers to these questions prior to the event to idp@wto.org.

1) Working definitions

Q. What are the concepts for which a "working definition" could help the identification of "environmentally sustainable and effective substitutes and alternatives" (please select all that apply). For each, what are the key elements that should be included in a working definition?

Secretariat of the BRS Conventions. Resources mentioned below:

- Decision BC-14/13: Further actions to address plastic waste under the Basel Convention
- Framework for the environmentally sound management of hazardous wastes and other wastes (http://www.basel.int/Implementation/CountryLedInitiative/EnvironmentallySoundManagement/ESMFramework/tabid/3616/Default.aspx)
- Environmentally sound management (ESM) toolkit (e.g. Practical manual for the promotion of the environmentally sound management of waste: terminology) (http://www.basel.int/Implementation/CountryLedInitiative/EnvironmentallySoundManagement/ESMToolkit/Overview/tabid/5839/Default.aspx)
- Glossary of terms (http://www.basel.int/Implementation/Publications/GuidanceManuals/tabid/2364/Default.aspx#)
- Technical guidelines for the identification and environmentally sound management (ESM) of plastic wastes and for their disposal (http://www.basel.int/Implementation/Plasticwaste/Technicalguidelines/Overview/tabid/7992/Default.aspx)
- Draft report on Global governance of plastics and associated chemicals, November 2022 (http://www.basel.int/Implementation/Plasticwaste/Callforinformation/Globalgovernanceofplasticsandassociatedchemi/tabid/9378/Default.aspx)

	concept	Key elements	Potential source
☐	plastic	Plastic is usually a synthetic material, either a polymer or combination of polymers of high molecular mass modified or compounded with additives such as fillers, plasticizers, stabilizers, lubricants, pigments. According to the International Organization for Standardization (ISO) "plastic is a material which contains as an essential ingredient a high polymer and which, at some stage in its processing into finished products, can be shaped by flow" (ISO, 2013). 11. Polymers are natural or synthetic substances composed of very large molecules, called macromolecules, that are multiples of simpler chemical units called monomers. There are a number of detailed definitions of the term "polymer", such as by the OECD (OECD Definition of Polymer - OECD) .	Draft technical guidelines on the environmentally sound management of ESM of plastic wastes (TG on ESM of plastic waste)
☐	microplastics	Plastic particles up to 5 mm in diameter (no ref to the source). Sources, challenges are	UNEP Brochure Microplastics (https://wedocs.unep.org/bitstream/handle/20.500.11822/12079/brochure-microplastics.pdf?sequence=1&amp%3BisAllowed=)

		related to its "behavior": chemical (e.g.POPs), physical, and biological effects	
☐	plastics substitutes		
☐	plastic alternatives	Parties to the Basel Convention and others are invited to significantly reduce single-use plastic products, notably through specific measures, such as the development of affordable and environmentally friendly alternatives, the use of substitutes for such products where alternatives are economically available, the reduction in their consumption Alternative materials with less environmental impact or by reducing the size of the products	Decision BC-14/13: Further actions to address plastic waste under the Basel Convention (section II on Preventing and minimizing the generation of plastic waste, improving its environmentally sound management and controlling its transboundary movement) TG on ESM of plastic wastes (draft)
☐	environmentally sustainable	See below "Environmentally sound management"	
☐	effective (including cost and functionally effective)	See below - See below "Environmentally sound management"	
☐	single use	UNEA-4 resolution 9 on "Addressing single-use plastic products pollution" encourages member states to develop and implement actions to address the environmental impacts of single-use plastic products, identify environmentally friendly alternatives to single-use plastics, promote improved waste management and more resource-efficient design, production, use and sound management of plastics across their life cycle	
☐	re-usable	Waste management hierarchy: recognized by decision BC-10/2 as prevention, minimization, reuse, recycling, other recovery including energy recovery, and final disposal; in doing so, encouraging treatment options that deliver the best overall environmental outcome, taking into account life-cycle thinking. Waste prevention (i.e. strict avoidance, source reduction and direct reuse), while part of waste minimisation (that also covers reuse and recycling), is fundamentally different from all other activities within the waste management hierarchy as it is implemented before products or materials become wastes. Waste prevention measures occur prior to waste management, as part of strategies and actions promoting or even mandating environmentally sound production, trade and consumption. Waste prevention may involve the following strategies: (a) Strict avoidance involves the prevention of waste generation by elimination of the need for a product, or material, or by a	Practical manual for the promotion of the environmentally sound management of waste: terminology

		reduction of hazardous substances and inputs, or by reducing material or energy intensity in production, consumption, and distribution.1 Strict avoidance also includes designing products for prolonged life. Waste prevention in this latter context extends the life of products and acts as a diversion of waste flows; (b) Source reduction involves altering production processes to minimize the use of toxic or harmful substances and/or minimizing material or energy consumption and/or maximally substituting primary raw materials with secondary raw materials that result from high quality recycling.2 Waste prevention in this context reduces or eliminates waste and pollution at source through process changes; (c) Direct reuse means the using again of a product, object or substance that is not waste for the same purpose for which it was conceived without the necessity of repair or refurbishment;	
☐	biodegradable	Plastics can also be classified considered as biodegradable and non-biodegradable. Biodegradable plastics are broadly understood to refer to plastics that can be degraded under certain conditions, such as temperature, UV, humidity, oxygen content and pH, by microorganisms in nature, such as bacteria, mould, and algae, and turn into water or carbon dioxide and other small molecules. The timeframe, the level of biodegradation, and the environment condition required for biodegradation need to be provided, along with claim of biodegradability of plastics (European Bioplastics, 2018). Standard specifications or protocols are required for biodegradability of plastics. Some of the available standard protocols for assessment of biodegradation of plastics include ISO/17556 for aerobic biodegradability of plastic materials in soil, ISO/15985 for anaerobic biodegradation under high-solids anaerobic-digestion conditions. Both fossil-based plastic and bio-based plastic can be biodegradable or non-biodegradable under certain conditions. See also "Oxo-degradable plastics"	Draft TG on ESM of plastic wastes (this is in particular the subject to ongoing discussions)
☐	erodible		
☐	recyclable	Recycling: Plastic waste recycling (operation R3) can be categorized as follows: (a) Mechanical recycling, with the processing of waste plastic through physical sorting, size reduction, cleaning and drying, thermal	Draft TG on ESM of plastic wastes

		melt-extrusion and pelletizing, and compounding; (b) Physical recycling, with the removal of constituents (e.g., flame-retardants) from plastic waste while keeping the plastic polymer molecules chain largely intact (solvent-based purification); c) Chemical recycling, where the plastic polymer molecules chains are broken down (recovery of chemical constituents that have been de-polymerized) and used as base chemicals, including feedstock for plastic manufacture (feedstock recycling). There are also specific aspects of recycling of common types of plastic waste (PE, PP, PS, ABS, PET, PC, PVC). "Recyclable" also could also be assumed as free of POPs and other hazardous chemicals	
☐	recycled content	Plastic polymers made from recycled material.	Draft report on Global governance of plastics and associated chemicals, November 2022
☐	compostable	Compostable plastics are considered those plastics which have been tested and adhere to international standards, such as American Society for Testing and Materials ASTM D6400-21 (ASTM, 2001) (in the U.S.) or European Standard EN 13432:2001 (European Standard, 2001) (in Europe), for biodegradation in an industrial composting facility: in addition, this may be certified by a third party. For compostable plastics to be fully composted, disposal must happen under specific conditions of temperature, moisture, oxygen level and microbial activity, normally found in controlled composting.	Draft TG on ESM of plastic wastes
☐	plastic-related emissions	Landfilling of plastic wastes can have impacts on human health and the environment, in particular in non-engineered landfills or open dumpsites such as the potential leaching of plastics additives, particles and items into the wider environment. Gasification, pyrolysis and combustion, in particular open burning, of plastic wastes, can also have impacts on human health and the	Draft TG on ESM of plastic wastes

		environment due to emissions and releases of greenhouse gases; and pollutants, such as unintentionally produced POPs and mercury. Pollutant emissions related to disposal and treatment of plastic wastes at respective facilities can include liquids, solids, gases, and others, which can be determined following the specific national legislation or international regulations and standards.	
☐	waste management technologies	Technologies are closely linked to the operations which are applied for the ESM of plastic wastes. There can be technologies for sorting, mechanic recycling, etc. Detailed information on the technologies is available Plastics technologies that are relevant to the environment including technologies for prevention, recycling, conversion or disposal of waste; for leakage removal; and for biobased feedstock.	Draft TG on ESM of plastic wastes Draft report on Global governance of plastics and associated chemicals, November 2022
☐	Other Environmentally sound management	Environmentally sound management means taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes.	Basel Convention, Article 2 (8) ESM Framework
	Environmental management system	A set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency. A waste facility should have an environmental management system (EMS) in place, taking into account the size of the enterprise, the level of risk associated with the operation of the facility and other factors relevant to implementation. An EMS is often designed to be integrated into the "plan, do, check and act" model for continuous improvement and many existing systems already use this approach. It helps to ensure that environmental issues are systematically identified, controlled and monitored in the context of the need to reinforce continuous improvement. Several applicable EMS already exist in countries which are members of the Organization for Economic Cooperation and Development (OECD): ISO 14001, which is worldwide; the Eco-Management and Audit Scheme (EMAS), which is specific to European countries and has somewhat more ambitious requirements than ISO 14001. Also considered to be applicable EMS are those that are tailor--made for individual circumstances – for example, systems designed for the purpose of specific industrial sectors or enterprises.	Practical manual for the promotion of the environmentally sound management of waste: terminology

	Oxo-degradable plastics	Oxo-degradable plastic is made by blending a pro-degradant additive into the plastic during the extrusion process, which accelerates the fragmentation of plastics into plastic fragments under certain conditions. Once the product is buried in the soil, and out of sunlight, the degradation process stops and residual small plastic particles remain intact, causing the release of microplastics.	Draft TG on ESM of plastic wastes
	End-of-waste	The Basel Convention does not clarify when a waste ceases to be a waste. The Glossary of Terms of the Basel Convention provides explanatory notes in this regard (UNEP, 2017f). Possibilities for waste to cease to be waste referenced in the Glossary of terms include when: (i) It has been prepared for reuse; (ii) (ii) It has undergone a recycling operation and that operation is completed; (iii) (iii) It has otherwise gained end-of-waste status as a result of a recovery operation. Some Parties have adopted conditions in their national legislation that can determine the point at which a material need no longer be classified as waste, such as the European Union (European Union, 2008) and the UK (English Environment Agency, 2016).	Draft TG on ESM of plastic wastes

2) HS code identification exercise, and trade-related measures enabling substitution of single-use plastic products (SUPP) and other "problematic" goods by sustainable materials.

Q. Please indicate what "environmentally sustainable and effective substitutes and alternatives" are already being traded – even if not perfect/ideal solutions – and their identification codes under the Harmonized Commodity Description and Coding System (HS) – even if those codes currently cover other products.

3) Illustrative and extended list of material substitutes and material identification exercise

Q. Please indicate the key criteria to be considered when identifying environmentally sustainable and effective substitute materials. Please provide examples of such materials as well as relevant HS codes if available.

See chapter 4.1.2.Proposal for sustainability criteria for plastics and associated chemicals of the draft report "Global governance of plastics and associated chemicals".

4) Minimum criteria for life cycle analysis, including other considerations such as tradability, non-toxicity, affordability, accessibility, and availability.

Q. What are the key criteria that should be included in the life cycle analysis (and other considerations such as tradability, non-toxicity, affordability, accessibility, and availability) of plastics, their alternatives, and substitutes.