



Written Submission

To the Second session of the Intergovernmental Negotiating Committee (INC-2) for the development of an international legally binding instrument on plastic pollution, including in the marine environment

Submitted in accordance with the proposed template.

Name of organization (for observers to the committee)	International Organization for Standardization (ISO)
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Annexes to the Written Submission:

Annex	Title	Description
1	List of relevant ISO standards	This list provides the references and titles of existing ISO deliverables relevant to the discussions of the INC. It includes references to ISO standards, technical reports and other types of documents. Draft documents which are currently being developed or finalized have also been included in this list. All ISO deliverables have been produced using an international consensus-based multi-stakeholder process.
2	Additional definitions provided by ISO standards	In order to complement the glossary provided by the INC Secretariat, ISO has provided a list of additional definitions and vocabulary already defined in ISO standards. These have been produced using an international consensus-based multi-stakeholder process. As per established practice, ISO vocabulary and definitions are periodically reviewed to ensure that they remain up-to-date.

I. Substantive elements

1. Objective(s)

a) What objective(s) could be set out in the instrument?

Proposed Objective:

To establish common international standards, and leverage existing international standards, to address the full life cycle of plastic in order to eliminate plastic pollution.



Explanatory Text:

The establishment and use of common international standards across the full life cycle of plastic (including on the design, production, consumption, reuse, recycling, trade and disposal of plastics) is an important objective if the instrument is to achieve the reduction or elimination of plastic pollution, whilst creating a level playing field for all States.

2. Core obligations, control measures and voluntary approaches

- a. *What core obligations, control measures and voluntary approaches would provide a comprehensive approach to addressing plastic pollution, including in the marine environment, throughout the full life cycle in line with the future objective(s) of the instrument?*

ISO international standards can provide guidance to help INC Members **understand and define the plastic life cycle**:

- Resolution 5/14 provides that the future instrument address plastic pollution at all stages of its life cycle. As such, the scoping and definition of the plastic life cycle (defined by ISO as the ‘consecutive and interlinked stages of a product system, from raw material acquisition or generation from natural resources to final disposal’, [ISO 14001:2015](#)) will directly affect the kinds of obligations, control measures and voluntary approaches to be included in the instrument.
- When deciding the stages to include in the life cycle of plastic, INC Members may find it useful to consult internationally agreed best-practice on life cycle assessments, including ISO’s standards on the principles and framework for life cycle assessment ([ISO 14040: 2006](#)) and on the requirements and guidelines for life cycle assessment ([ISO 14044:2006](#)).

ISO international standards can also provide guidance on the use of some voluntary approaches that, in addition, could be impactful in the fight against plastic pollution, such as **environmental labelling** programmes (see the [ISO 1402X series](#) of standards).

II. Implementation elements

1. Implementation measures

- a. *How to ensure implementation of the instrument at the national level (eg. role national action plans contribute to meeting the objectives and obligations of the instrument?)*
- b. *How to ensure effectiveness of the instrument and have efficient national reporting?*
- c. *Please provide any other relevant proposals or priorities here on implementation measures (for example for scientific and technical cooperation and coordination as well as compliance).*



Effective implementation

The use of international standards can be helpful for States in implementing the instrument because such standards:

- Do not create unnecessary barriers to trade (thus ensuring that States are complying with their WTO obligations under the [Technical Barriers to Trade Agreement](#)).
- Represent international best practice, as agreed by consensus through an open, transparent, international process and by a diverse set of stakeholders (including developing countries and non-industry stakeholders).
- Are already widely used by the private sector and hence facilitate implementation by State and non-State actors alike.
- Can be – and often are – referenced in [regulation](#).
- Can be – and often are – used in [conformity assessment](#) to ensure compliance and quality at the national and international level.

ISO already has many standards that could be useful in supporting efforts by States to eliminate plastic pollution (see list in **Annex 1**). Where States see a need for further standards to help them meet the objectives of the instrument, ISO can provide the platform to efficiently develop these standards, bringing together all relevant international stakeholders (government, industry, NGOs, consumers, etc.) to develop the required solutions.

Efficient reporting

The obligation for States to report on their implementation of the instrument will be an important means of assessing progress and a means of helping States identify gaps in their implementation where cooperation and assistance may be needed.

The development of a reporting template by any future Secretariat following the adoption of the instrument could help facilitate consistent and comprehensive reporting and reduce the reporting burden. While international standards can be referenced in the International Legally Binding Instrument (ILBI) itself, such a reporting template could also include a section asking which tools, including international standards, have been adopted nationally as part of implementation efforts.

2. Means of Implementation

With respect to means of implementation, document UNEP/PP/INC.1/5 covers the following elements: capacity-building, technical assistance, technology transfer on mutually agreed terms and financial assistance.

a. *What measures will be required to support the implementation of the instrument?*

To assist States in using international standards to help meet their obligations under the instrument, technical assistance is available from ISO and its members (national standards bodies). A dedicated unit in the ISO Central Secretariat focuses on [capacity building](#) for developing countries, in particular.



III. Additional input

Please provide any other relevant proposals or priorities here (for example introductory elements; awareness-raising, education and exchange of information; research; stakeholder engagement; institutional arrangements and final provisions).

Introductory elements – Vocabulary & Definitions

- In addition to incorporating internationally recognized definitions of key terms that exist in the context of other treaties and processes, Members could consider including vocabulary and definitions from international standards.
- Members will also need to consider whether and how to accommodate potential changes to any definitions in other instruments and processes that are referenced in the instrument and ensure there is sufficient flexibility to future-proof the instrument.
- Referencing definitions from international standards ensures not only that the definition has been agreed by both subject-matter experts and countries, but that the definitions will be revised and updated as and when necessary, as part of the regular maintenance cycle of standards.
- ISO international standards contain many definitions of key terms related to plastics (for example, in [ISO 472:2013](#) *Plastics – Vocabulary*). Vocabulary standards are available free of charge.
- **Annex 2** to this Statement provides a list of relevant definitions and vocabulary that are not already included in *UNEP/PP/INC.1/6 Glossary of key terms* provided by the INC Secretariat, in order to complement that document. However, ISO would also be able to provide a complete list of all vocabulary/definitions relevant to the INC.



Annex 1: List of Relevant ISO Standards/ Deliverables

ISO Standard (Reference)	Title
ISO 15270:2008	Plastics — Guidelines for the recovery and recycling of plastics waste
ISO 15314:2018	Plastics — Methods for marine exposure
ISO 22766:2020	Plastics — Determination of the degree of disintegration of plastic materials in marine habitats under real field conditions
ISO 14024:2018	Environmental labels and declarations — Type I environmental labelling — Principles and procedures
ISO 14021:2016	Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling)
ISO 14025:2006	Environmental labels and declarations — Type III environmental declarations — Principles and procedures
ISO 17088:2021	Specifications for compostable plastics
ISO 18603:2013	Packaging and the environment — Reuse
ISO/TR (Technical Report) 18568:2021	Packaging and the environment — Marking for material identification
ISO 18604:2013	Packaging and the environment — Material recycling
ISO 18605:2013	Packaging and the environment — Energy recovery
ISO 18606:2013	Packaging and the environment — Organic Recycling
ISO/TR (Technical Report) 17098:2013	Packaging material recycling — Report on substances and materials which may impede recycling
ISO 18601:2013	Packaging and the environment — General requirements for the use of ISO standards in the field of packaging and the environment
ISO 18602:2013	Packaging and the environment — Optimization of the packaging system
ISO 14033:2019	Environmental management — Quantitative environmental information — Guidelines and examples
ISO 14040:2006	Environmental management — Life cycle assessment — Principles and framework
ISO 14051:2011	Environmental management — Material flow cost accounting
ISO 5412:2022	Plastics — Industrial compostable plastic shopping bags
ISO 5424:2022	Plastics — Industrial compostable plastic drinking straws
ISO 24161:2022	Waste collection and transportation management — Vocabulary
ISO 13975:2019	Plastics — Determination of the ultimate anaerobic biodegradation of plastic materials in controlled slurry digestion systems — Method by measurement of biogas production
ISO 16620-1:2015	Plastics — Biobased content — Part 1: General principles



ISO 16620-2:2019	Plastics — Biobased content — Part 2: Determination of biobased carbon content
ISO 16620-3:2015	Plastics — Biobased content — Part 3: Determination of biobased synthetic polymer content
ISO 16620-4:2016	Plastics — Biobased content — Part 4: Determination of biobased mass content
ISO 16620-5:2017	Plastics — Biobased content — Part 5: Declaration of biobased carbon content, biobased synthetic polymer content and biobased mass content
ISO 11469:2016	Plastics — Generic identification and marking of plastics products
ISO 22526-1:2020	Plastics — Carbon and environmental footprint of biobased plastics — Part 1: General principles
ISO 22526-2:2020	Plastics — Carbon and environmental footprint of biobased plastics — Part 2: Material carbon footprint, amount (mass) of CO ₂ removed from the air and incorporated into polymer molecule
ISO 22526-3:2020	Plastics — Carbon and environmental footprint of biobased plastics — Part 3: Process carbon footprint, requirements and guidelines for quantification
ISO 1043-1:2011	Plastics — Symbols and abbreviated terms — Part 1: Basic polymers and their special characteristics
ISO 1043-2:2011	Plastics — Symbols and abbreviated terms — Part 2: Fillers and reinforcing materials
ISO 1043-3:2016	Plastics — Symbols and abbreviated terms — Part 3: Plasticizers
ISO 1043-4:2021	Plastics — Symbols and abbreviated terms — Part 4: Flame retardants
ISO 17364:2013	Supply chain applications of RFID — Returnable transport items (RTIs) and Returnable packaging items (RPIs)
ISO 5020:2022	Waste reduction and treatment on fishing vessels
ISO/TR (Technical Report) 21960:2020	Plastics — Environmental aspects — State of knowledge and methodologies
ISO 15985:2014	Plastics — Determination of the ultimate anaerobic biodegradation under high-solids anaerobic-digestion conditions — Method by analysis of released biogas
ISO 14855-1:2012	Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting conditions — Method by analysis of evolved carbon dioxide — Part 1: General method
ISO 14855-2:2018	Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting conditions — Method by analysis of evolved carbon dioxide — Part 2: Gravimetric measurement of carbon dioxide evolved in a laboratory-scale test
ISO 17088:2021	Plastics — Organic recycling — Specifications for compostable plastics
ISO 16929:2021	Plastics — Determination of the degree of disintegration of plastic materials under defined composting conditions in a pilot-scale test
ISO 20200:2015	Plastics — Determination of the degree of disintegration of plastic materials under simulated composting conditions in a laboratory-scale test



ISO 23977-1:2020	Plastics — Determination of the aerobic biodegradation of plastic materials exposed to seawater — Part 1: Method by analysis of evolved carbon dioxide
ISO 23977-2:2020	Plastics — Determination of the aerobic biodegradation of plastic materials exposed to seawater — Part 2: Method by measuring the oxygen demand in closed respirometer
ISO 23832:2021	Plastics — Test methods for determination of degradation rate and disintegration degree of plastic materials exposed to marine environmental matrices under laboratory conditions
ISO 23517:2021	Plastics — Soil biodegradable materials for mulch films for use in agriculture and horticulture — Requirements and test methods regarding biodegradation, ecotoxicity and control of constituents
ISO 17556:2019	Plastics — Determination of the ultimate aerobic biodegradability of plastic materials in soil by measuring the oxygen demand in a respirometer or the amount of carbon dioxide evolved
ISO 18830:2016	Plastics — Determination of aerobic biodegradation of non-floating plastic materials in a seawater/sandy sediment interface — Method by measuring the oxygen demand in closed respirometer
ISO 19679:2020	Plastics — Determination of aerobic biodegradation of non-floating plastic materials in a seawater/sediment interface — Method by analysis of evolved carbon dioxide
ISO 5148:2022	Plastics — Determination of specific aerobic biodegradation rate of solid plastic materials and disappearance time (DT50) under mesophilic laboratory test conditions
ISO 14852:2021	Plastics — Determination of the ultimate aerobic biodegradability of plastic materials in an aqueous medium — Method by analysis of evolved carbon dioxide
ISO 14853:2016	Plastics — Determination of the ultimate anaerobic biodegradation of plastic materials in an aqueous system — Method by measurement of biogas production
ISO 22404:2019	Plastics — Determination of the aerobic biodegradation of non-floating materials exposed to marine sediment — Method by analysis of evolved carbon dioxide
ISO 22403:2020	Plastics — Assessment of the intrinsic biodegradability of materials exposed to marine inocula under mesophilic aerobic laboratory conditions — Test methods and requirements
ISO 14851:2019	Determination of the ultimate aerobic biodegradability of plastic materials in an aqueous medium — Method by measuring the oxygen demand in a closed respirometer
ISO/TR (Technical report) 22293:2021	Evaluation of methods for assessing the release of nanomaterials from commercial, nanomaterial-containing polymer composites
ISO/TR (Technical report) 24524:2019	Service activities relating to drinking water supply, wastewater and stormwater systems — Hydraulic, mechanical and environmental conditions in wastewater transport systems



ISO/TS (Technical specification) 22687:2018	Rubber — Framework for assessing the environmental fate of tyre and road wear particles (TRWP)
ISO/TS (Technical specification) 22638:2018	Rubber — Generation and collection of tyre and road wear particles (TRWP) — Road simulator laboratory method
ISO 37122:2019	Sustainable cities and communities — Indicators for smart cities
ISO/ASTM 52910:2018	Additive manufacturing — Design — Requirements, guidelines and recommendations
ISO/DIS (Draft, under development) 5430	Plastics — Ecotoxicity testing scheme for soluble decomposition intermediates from biodegradable plastic materials and products used in the marine environment — Test methods and requirements
ISO/DIS (Draft, under development) 24146-1	Ships and marine technology — Shipboard waste on inland navigation vessels — Part 1: On board management and handling
ISO/DIS (Draft, under development) 4484-1	Textiles and textile products — Microplastics from textile sources — Part 1: Determination of material loss from fabrics during washing
ISO/DIS (Draft, under development) 4484-2.2	Textiles and textile products — Microplastics from textile sources — Part 2: Qualitative and quantitative evaluation of microplastics
ISO/FDIS (Final draft, under development) 24187	Principles for the analysis of microplastics present in the environment
ISO/DIS (Draft, under development) 5157	Textiles — Environmental aspects — Vocabulary



Annex 2: Additional definitions provided by ISO standards

The list below provides additional definitions and vocabulary already defined in ISO standards, in order to complement the glossary provided by the INC Secretariat (*UNEP/PP/INC.1/6 Glossary of key terms*).

As with all ISO standards, they have been produced using an international consensus-based multi-stakeholder process. As per established practice, ISO vocabulary and definitions are periodically reviewed to ensure that they remain up to date.

List of additional vocabulary/definitions:

ISO 472:2013(en)

Plastics — Vocabulary

Biodegradation phase: time, measured in days, from the end of the lag phase of a test until about 90 % of the maximum level of biodegradation has been reached.

Biological recycling: aerobic (composting) or anaerobic (digestion) treatment of biodegradable plastics waste under controlled conditions using microorganisms to produce, in the presence of oxygen, stabilized organic residues, carbon dioxide and water or, in the absence of oxygen, stabilized organic residues, methane, carbon dioxide and water.

ISO 15270:2008(en)

Plastics — Guidelines for the recovery and recycling of plastics waste

Energy recovery: production of useful energy through direct and controlled combustion. Note 1 to entry: Solid-waste incinerators producing hot water, steam and/or electricity are a common form of energy recovery.

Feedstock recycling: conversion to monomer or production of new raw materials by changing the chemical structure of plastics waste through cracking, gasification or depolymerization, excluding energy recovery and incineration. Note 1 to entry: Feedstock recycling and chemical recycling are synonyms.

Post-consumer: descriptive term covering material, generated by the end-users of products, that has fulfilled its intended purpose or can no longer be used (including material returned from within the distribution chain). Note 1 to entry: The term “post-use” is sometimes used synonymously.

Pre-consumer: descriptive term covering material diverted during a manufacturing process. Note 1 to entry: This term excludes re-utilized material, such as rework, regrind or scrap that has been generated in a given process and is capable of being reclaimed within that same process. Note 2 to entry: The term “post-industrial material” is sometimes used synonymously.

ISO 24161:2022(en)

Waste collection and transportation management — Vocabulary

Pay-as-you-throw (PAYT): usage-based pricing system for waste whereby residents pay a variable waste fee based on the quantity of waste handled.



Refurbished part: part that is disassembled from waste products or equipment and can be recycled or prepared for reuse after inspection, detection and simple treatment.

Incinerable waste: waste that can be destroyed, rendered inert or reduced to ash through a process of controlled, high-temperature combustion.

Litter: waste of a smaller size that is discarded improperly by an individual in a public environment.

Packaging waste: waste from all products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer

Remanufacturing: process of creating a like-new product through dismantling, cleaning, salvaging and replacing worn components before reassembling and testing. Note 1 to entry: The quality of this product should be equal to or better than the original.

Waste treatment: single step or a combination of multiple steps in which waste is handled via mechanical, chemical, thermal or biological processes with the aim of recovering material or energetic value and/or reducing the volume and environmental impact of the waste.

Informal recycler (rag and bone man): unlicensed individual collecting recyclables and second-hand goods for reuse or recycling.

ISO 21067-1:2016(en)

Packaging — Vocabulary — Part 1: General terms

Packaging: product to be used for the containment, protection, handling, delivery, storage, transport and presentation of goods, from raw materials to processed goods, from the producer to the user or consumer, including processor, assembler or other intermediary; or operations involved in the preparation of goods for containment, protection, handling, delivery, storage, transport and presentation of goods, from raw materials to processed goods, from the producer to the user or consumer. Note 1 to entry: The term includes preservation, packing, marking and unitization.

Primary packaging: designed to come into direct contact with the product

Secondary packaging: designed to contain one or more primary packagings together with any protective materials where required.

Inner packaging: packaging for which an outer packaging is required for transport.

Distribution packaging/transport packaging/tertiary packaging: designed to contain one or more articles or packages, or bulk material, for the purposes of transport, handling and/or distribution.

Consumer packaging/retail packaging/sales packaging: packaging constituting, with its contents, a sales unit for the final user or consumer at the point of retail.

Industrial packaging: packaging for raw materials, components and partially manufactured or finished goods, for distribution from manufacturer to manufacturer and/or other intermediaries such as processor or assembler.

Commercial packaging: methods and materials used by a supplier to satisfy the requirements of the distribution system. Note 1 to entry: Commercial packaging includes industrial packaging and consumer packaging and may be applicable for certain levels of military packaging.

Bulk packaging: intended to contain loose articles, large masses of solids or granular materials, or liquids for transport or storage.



Reclosable package: package which, after it has been initially opened, is capable of being reclosed with a similar degree of security and is capable of being used a sufficient number of times to dispense the total contents without loss of security.

ISO 21067-2:2015(en)

Packaging — Vocabulary — Part 2: Packaging and the environment terms

Used packaging: packaging that has been used by the final consumer or end user and which is destined for reuse or recovery.

Packaging optimization: process for the achievement of a minimum adequate weight or volume (source reduction) for meeting the necessary requirements of primary or secondary or transport packaging, when performance and user/consumer acceptability remain unchanged or adequate, thereby reducing the impact on the environment

Critical area(s): specific performance criterion/criteria which prevents further reduction of weight or volume without endangering functional performance, safety and user/consumer acceptability.

Reusable packaging: packaging or packaging component which has been designed to accomplish or proves its ability to accomplish a minimum number of trips or rotations in a system for reuse.

Reconditioning: operations necessary to restore a reusable packaging to a functional state for further reuse.

Primary raw material/virgin raw material: material which has never been processed into any form of end-use product.

Packaging unit: unit which serves a packaging function such as the containment, protection, handling, delivery, storage, transport and presentation of goods.

Disintegration: physical breakdown of a material into fragments.

Ultimate biodegradability: breakdown of an organic chemical compound by micro-organisms in the presence of oxygen to carbon dioxide, water and mineral salts of any other elements present (mineralization) and new biomass or in the absence of oxygen to carbon dioxide, methane, mineral salts and new biomass.

ISO 16304:2018(en)

Ships and marine technology — Marine environment protection — Arrangement and management of port waste reception facilities

Port reception facility/PRF: any facility or facilities operating in, or provided by, a port or terminal which is fixed, floating or mobile and is capable of receiving ship generated waste and cargo residues.

ISO 6107:2021(en)

Water quality — Vocabulary

Non-point source pollution/diffuse source pollution: pollution of surface or ground waters which arises not from a single point but rather in a widespread manner.