

Intergovernmental Negotiating Committee to develop an international legally binding instrument on plastic pollution, including in the marine environment

Ad hoc intersessional open-ended expert group to identify and analyse criteria and non criteria based approaches with regard to plastic products and chemicals of concern in plastic products, and product design focusing on recyclability and reusability of plastic products, considering their uses and applications

In-person meeting

Bangkok, 24-28 August 2024

## **Expert Group 2 – Summary under agenda item 4c – Product Design, focusing on recyclability and reusability of plastic products<sup>1</sup>**

The Expert Group considered possible criteria and non criteria based approaches regarding product design focusing on recyclability and reusability of plastic products, considering their uses and applications, with reference to broad categories of possible approaches identified in light of earlier inputs received from experts.

A range of views was heard, and the summary below should not be read to imply agreement among experts on any particular view.

With respect to product design in general, it was noted that a provision on design is important to address aspects contributing to plastic pollution not covered under other provisions.

It was noted that good product design can contribute to the achievement of sustainable production and consumption of plastic products and their circularity, facilitating recycling and reuse in practice and at scale, as well as environmentally sound waste management. The complementarity and linkage between product design and end-of-life management was noted.

It was noted that common terminology and definitions would be important to facilitate a shared understanding of the scope of any measures on product design.

### **1. General considerations on possible approaches to product design, focusing on recyclability and reusability**

A number of general considerations were identified that are potentially relevant to, and could inform, any approach to plastic products design. These include the following, without prejudice to whether experts were in agreement on all aspects:

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<sup>1</sup> This summary is intended to reflect discussions at the in-person meeting of Expert Group 2 on 26 and 27 August. This summary is not exhaustive and does not reproduce elements contained in the synthesis document. This summary provides material to inform the preparation of the Co-Chairs' report for Expert Group 2. In preparing their report, the Co-Chairs will also take into account the deliberations during the virtual meetings, responses to the questionnaire and other further reflections related to agenda item 4(c) provided by experts at this in-person meeting. The Co-Chairs' report is a non-negotiated document and will be finalized by the Co-chairs after this Expert Group meeting and forwarded for the consideration by the Committee at INC-5. The report will be without prejudice to national positions and the outcome of negotiations conducted by the Committee.

- Approaches should be implementable, and provide flexibility to address different contexts, including different sectors, while ensuring compatibility with existing infrastructure.
- Approaches should be based on robust knowledge, including scientific and statistical data, and incorporating indigenous knowledge, and existing best practices from global and national initiatives, and should be amendable over time to reflect advancements in science, innovations and results from efficacy monitoring.
- Approaches would need to account for the global nature of plastic value chains. On this, one view is that having global harmonized approaches would facilitate and enable trade of plastic products among countries. Another view is that conformity assessment procedures at the national level could ensure that exporters of plastic products comply with the requirements of the market they export to.
- It was suggested that product design approaches should include eco-design and circularity principles.
- Different views were expressed on how to apply a life cycle approach, including as to whether a cradle to grave approach that only tackles the product itself should be applied, or whether all stages of the life cycle, including upstream activities, should be addressed.
- It was stated that the same criteria should apply to alternatives, including non plastic material substitutes, and that there is a need to conduct scientific research and develop criteria for all alternatives to traditional plastic products, leading to better environmental performance throughout the product life cycle.
- It was stressed that adequate means of implementation would be required, flowing from developed countries to developing countries, to match the level of ambition of product design measures and ensure their implementation in practice. Adequate means of implementation mentioned would include adequate timeframes for implementation, funding and investments for infrastructure development, capacity building, technical assistance, and technology transfer.

Different possible approaches were identified, to ensure **coherence between the potential provisions** in the instrument on plastic products, chemicals of concern in plastic products, and product design, respectively:

- **One approach** could be to maintain separate provisions on products, chemicals of concern in plastic products, and products design, respectively, ensuring that product design criteria would work in tandem with the approaches identified under the other two provisions.
- **Another approach** could be to consider the potential provisions on plastic products and products design, in an integrated manner. Under this approach, design criteria under the product design provision could include parameters to address chemicals of concern. At the same time, views were expressed that under this approach, the process for the identification of what constitutes a chemical of concern may pose a challenge.

## 2. Possible approaches identified for product design, focusing on recyclability and reusability of plastic products

Overall, a broad range of possible approaches was identified, including for the use of a combination of types of approaches such as standards, guidelines, or targets to promote plastic product design for

recyclability and reusability, as well as the identification of relevant design criteria, to be adopted and applied at the global and/or national level, and on a mandatory and/or voluntary basis.

It was stated in this respect that whether voluntary or mandatory approaches are adopted is a critical dimension in terms of implementation, which also has an impact on how the transition would take place, including with respect to the availability of resources and access to technology, especially for developing countries.

There was generally a range of views on the desirability of adopting common approaches at the global level, to ensure harmonization across countries, in light in particular of the global nature of plastic value chains, or whether to favor national approaches that would allow due account to be taken of domestic conditions and circumstances, including with respect to socio-economic impacts, infrastructure capacities and technological maturity.

Possible identified approaches include a range of possible types of measures to be taken at the global and/or national level, including the possibility of defining broad parameters for action at the global level, with flexibility for the adoption of measures at the domestic level, that could be tailored to local conditions.

A range of possible modalities was also identified for the deployment of the identified approaches, including the possibility of a phased approach.

The possible approaches identified are presented below with reference to the following broad categories of possible action: performance and/or design criteria, standards and/or guidelines, targets, and national level interventions. These could be complementary.

#### **a. Performance and/or design criteria**

Different possible **approaches** were identified **with respect to design criteria** including:

- A combination of approaches among those presented in the tables, in sections V. A, V.B and V.C of the revised Synthesis Document.
- Setting generic level criteria (e.g. recyclability, reusability, repairability, reduction of waste) related to addressing plastic waste and the enhancement of recycling rates.
- A phased approach, to first identify overarching principles or attributes for product design, taking into account existing measures such as standards, criteria, and guidelines, and the establishment by the governing body of a working group to develop guidelines to assist parties in development of e.g. standards, measures, and targets to be nationally determined.
- Deployment of different criteria at a speed or scale to help transition to circularity approach
- Identified criteria could be submitted for adoption by the governing body as basis for standards or guidance for national action.

Possible principles or attributes of product design, focusing on reusability and recyclability could for instance include design for:

- Resource efficiency
- Safe circularity
- Material simplicity
- Reuse

- Disassembly, reassembly
- Recycling
- Refillability
- Chemical simplification
- Safety
- Modularity
- Refurbishability
- Durability and repair
- Toxicity
- Sustainability.

Under the approaches proposed, these principles could either be the criteria themselves or guide the development of specific product design criteria/requirements, for example:

- the principle of designing for resource efficiency could lead to the development of specific product requirements for material;
- the principle of designing for reusability would lead to the development of specific product design criteria such as for ease of cleaning, and extended product life time;
- design for recyclability would lead to specific product criteria including how materials are selected, the possibility to remanufacture also avoiding the use of chemicals of concern to avoid contamination;
- design for reassembly would lead to product-specific consideration on availability of spare parts, enabling disassembly;
- Chemical simplification would lead to product-specific consideration to streamline chemical composition of products, avoid excessive use of colors, opt for mono-material composition.
- Design for sustainability would lead among others to the develop of product-specific requirements to reduce risk of entanglement and ingestion.

Different possible criteria were referred to that could contribute to reusability and recyclability.<sup>2</sup>

Views noted that in specifying requirements for plastic product design, it is necessary to take into account differences in characteristics and methods of use of such products in different countries, as well as the capacity of recycling facilities, need to be taken into account.

It was also stated that the same criteria should apply to alternatives including non plastic material substitutes and views expressed need to conduct scientific research and develop criteria for all alternatives to traditional plastic products, leading to better environmental performance throughout the product life cycle

### **b. Sectoral approaches**

It was stated that design requirements/criteria would differ greatly depending of the specific product at hand, and different sectors were identified, for which sectoral approaches could be developed and/or prioritized.

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<sup>2</sup> Views referred to considering the criteria identified at paras. 75 to 78 of synthesis document.

It was suggested in this context that sectoral focus for the design of plastic products should extend to other sectors than packaging.

Other sectors identified for possible prioritization include:

- Textiles
- Tyres
- Agricultural plastics
- Fishing gear.

Another approach identified could be to prioritize sectors based on their immediate negative impacts on the environment.

The establishment of dedicated Programmes of Works (PoWs) was identified as a possible approach for the development of products design requirements/criteria for specific products and/or groups of products, building on specific existing best practices and experiences to enable easier implementation in practice, reduction of material use and of releases to the environment.

### **c. Standards and/or guidelines**

Possible approaches identified with respect to product design standards include:

- Global harmonised standards and guidelines, including with respect to:
  - Recyclability and disposability
  - Product labelling for the different types of plastic materials and specific disposal paths, including identification codes.
  - Reusability and reuse
  - Product design
  - Transparency
  - Biodegradability
- Globally mandatory standards
- Global design standards coupled with national standards
- Global design standards for reuse coupled with national action plans and reuse targets
- Product/sector specific standards and guidelines
- Guidelines in line with general principles or criteria to be established in the instrument
- No global strict standards and regulations (as these may not enable consideration of domestic socio-economic conditions)
- National standards for specific uses and applications
- No design and performance standards for products.

It was also stated that standards should be applied in accordance with WTO rules, including in relation to the use of relevant international standards.

### **d. Reuse, refill, recycled contents and/or recycling targets**

Different possible approaches were identified for **targets** for reuse and refill, recycled content, recycling, collection and sorting, including:

- Mandatory national **recycling and collection targets** (prioritized over reuse and recycled content targets), following global guidelines and standards, to allow flexibility to account for national circumstances, and different capabilities, particularly of developing countries.
- Voluntary national **design, recycling and collection targets** to be included in **national** plans, based on national circumstances, capabilities and markets conditions, including based on assessment on how collection and recycling could be scaled-up, particularly in developing countries.
- Voluntary national **reuse or recycled content targets**, based on the actual pollution character, technology and infrastructure capacity in countries.
- Global **reuse and recycling targets** coupled with national actions plans.
- **Recycled content** target, including per application.

**e. Context-specific approaches, including national level determinations, taking into account national circumstances and capabilities**

Under this approach, measures and scientifically sound strategies could be developed at the national level, to allow flexibility to identify the most effective and appropriate approaches for product design, taking account of national circumstances, capabilities and different levels of technological maturity.

It was also suggested that global voluntary guidance could be developed for the development of actions to be included in national plans and national reports.

### **3. Traceability and transparency**

Transparency measures, including traceability and trackability of products across the plastic lifecycle and interoperability of systems can contribute to effective monitoring and evaluation, and provide confidence in product design and safety.

The following could be subject to data disclosure or transparency requirements:

- Chemicals used in plastic products.
- Recycled content in plastic products.

Measures to enhance traceability and transparency included:

- Standards for disclosure and traceability of plastic products
- Data disclosure requirements
- Tracking systems, include chain of custody frameworks.
- Harmonized transparency and labelling requirements on a product or application basis. Labelling could, as appropriate, include scientific information on products and systems, material contents, recyclability, reuse and disposal instructions.
- Compliance guidelines for companies to enable a just transition.
- Global, harmonized certification schemes or mechanisms for recycled content in plastic products.
- Chemical monitoring, testing and quality control of recycled plastics.
- IT integration for traceability.

#### **4. Monitoring and evaluation**

The need to establish robust monitoring and compliance requirements and mechanisms to track and measure the effectiveness of the instrument and ensure compliance and accountability was noted.

It was suggested that sufficient flexibility is required for the instrument to take into account the results of efficacy monitoring. There were varying views on whether mandatory or voluntary monitoring requirements would be most appropriate.

It was further noted that robust monitoring may require significant financing, technical support, capacity building and infrastructure for developing countries. Especially if mandatory.

In terms of issues that could be subjected to monitoring and reporting, the following were identified:

- Reuse rates
- Recycling rates
- Collection rates
- Volumes of diverted waste
- Contamination and non intentionally added substances in plastic products.
- Environmental contamination and downstream health risks from recycling processes
- Sustainable production and consumption

Potential approaches identified for monitoring and evaluation include:

- Through national action plans and national reporting for consideration by the governing body of the instrument.
- Data collection through EPR regulations
- Independent third-party audits.
- Global reporting databases
- Plastic registries

#### **5. Conditions and prerequisites for effective application and implementation**

Finally, in respect of conditions and prerequisites for an effective application and implementation of any approach, it was noted that it would be important to ensure alignment between the level of the obligation and means of implementation to developing countries, especially in the case of mandatory approaches.

The parameters identified as conditions for effective application and implementation overlapped with aspects highlighted under other sub-items of Agenda Item 4. Aspects identified in this context included the following:

- Common, clear and objective definitions and principles.
- Clear regulatory framework, built on standards.
- A dynamic instrument that can be updated with new information, data and scientific advances, including new standards.
- Flexibility based on national circumstances and capabilities, considering different characteristics and levels of usage of specific plastic products, socioeconomic effects, availability of production, waste management and treatment technologies, and of recycled materials.

- Inclusive processes for the determination of design criteria, guidelines and standards, including an effective, robust and independent science-policy interface supported by science and socioeconomic expertise, and with full and meaningful participation and contributions from indigenous knowledge holders.
- A collaboration mechanism facilitating exchange and collaboration between regulatory agencies, scientific experts, civil society and industry could also be envisaged.
- The engagement of all stakeholders, including industry, waste pickers and workers in informal and cooperative settings and indigenous knowledge holders.
- A dedicated panel could be established to manage participation of knowledge holders, including Indigenous Peoples and local communities, particularly in relation to the development of suitable alternatives.
- Robust scientific criteria
- EPR as a tool to hold producers responsible across the lifecycle and mobilize funding.
- Increased consumer awareness and behavior change.
- Availability, accessibility and transfer of alternatives, and innovative and clean technologies.
- Improved statistical data and representative data from all regions.
- Improved transparency, testing and effective disclosure mechanisms, through labelling and certification schemes.
- Adequate, accessible and predictable means of implementation to developing countries, including financial support, technology transfer and capacity building, training programmes and to expand waste management capabilities.
- A robust reporting, enforcement, and compliance mechanism.
- Research and development, innovation, technology-based approaches and initiatives, including through public-private partnerships and community led solutions.
- Effective waste management systems including adequate collection, sorting, processing and tracking capabilities.
- International and regional cooperation, including building on and sharing existing national and regional experience, guidelines, standards and best practices, including from industry and international standardization bodies.