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**Intergovernmental negotiating committee to develop
an international legally binding instrument on plastic
pollution, including in the marine environment**

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**Preparation of an international legally binding instrument on
plastic pollution, including in the marine environment**

**Potential options for elements towards an international legally
binding instrument, based on a comprehensive approach that
addresses the full life cycle of plastics as called for by
United Nations Environment Assembly resolution 5/14**

Note by the secretariat

1. At its first session, the intergovernmental negotiating committee to develop an international legally binding instrument on plastic pollution, including in the marine environment, requested the secretariat to prepare, for consideration by the committee at its second session, a document with potential options for elements towards an international legally binding instrument, based on a comprehensive approach that addressed the full life cycle of plastics as called for by Environment Assembly resolution 5/14, including identifying the objective; substantive provisions, including core obligations, control measures and voluntary approaches; implementation measures; and means of implementation. The committee specified that the document could include both legally binding and voluntary measures.
2. In response to that request, the secretariat has prepared the document set out in the annex to the present note. In doing so, the secretariat, in consultation with the Chair of the intergovernmental negotiating committee, drew on the views expressed by Member States during the first session of the committee and in their written submissions. Section I of the document, an introductory note prepared by the secretariat, sets out the context and an introduction, and section II of the document describes the options themselves. The document is intended to facilitate the committee's work without in any way prejudging what the committee might decide regarding the structure and provisions of the future instrument.

* UNEP/PP/INC.2/1.

Annex

Potential options for elements towards an international legally binding instrument, based on a comprehensive approach that addresses the full life cycle of plastics as called for by United Nations Environment Assembly resolution 5/14

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I. Introductory note prepared by the secretariat

1. At its first session, the intergovernmental negotiating committee to develop an international legally binding instrument on plastic pollution, including in the marine environment, requested the secretariat, in consultation with the chair, to prepare, for consideration by the committee at its second session, a document with potential options for elements towards an international legally binding instrument, based on a comprehensive approach that addresses the full life cycle of plastics as called for by Environment Assembly resolution 5/14, including identifying the objective; substantive provisions, including core obligations, control measures and voluntary approaches; implementation measures; and means of implementation. The committee specified that the document could include both legally binding and voluntary measures. Section II below contains the requested potential options for elements.
2. This document is intended to facilitate the committee's work without in any way prejudging what the committee might decide regarding the structure and provisions of the future instrument. In preparing the document, the secretariat, in consultations with the Chair of the intergovernmental negotiating committee, drew on the views expressed by Member States during the first session of the committee and in their written submissions.¹ For ease of submission, a template was shared with all focal points on 15 December 2022 to serve as a guide. The template included the following categories: objectives; core obligations, control measures and voluntary approaches; implementing elements (including implementing measures and means of implementation); and additional input (e.g., introductory elements, awareness-raising, education and exchange of information, research, stakeholder engagement, institutional arrangements and final provisions).
3. Some of the submissions from Member States included options for elements that were not specifically identified in the template. Those options have been included in appendix I to the present document to capture the depth of the information contained in the submissions. The submissions cover introductory elements related to the preamble, definitions, scope, principles and institutional arrangements related to the governing body, subsidiary bodies, scientific and technical cooperation and coordination, and the secretariat.
4. In total, 67 submissions were received from Member States and groups of Member States, and another 176 submissions were received from stakeholders and stakeholder groups. The Chair of the intergovernmental negotiating committee hosted two webinars where 46 stakeholders presented their views to help inform Member States as they finalized their submissions.
5. The overall structure of the present document was developed following the mandate from the first session of the intergovernmental negotiating committee and uses working document UNEP/PP/INC.1/5, on potential elements,² as a starting point. Document UNEP/PP/INC.1/5 set out the elements identified in paragraphs 3 and 4 of Environment Assembly resolution 5/14, in a non-prescriptive order, under headings. The use of that structure was aimed at facilitating navigation across the document and was in no way intended to prejudge the structure of the instrument that the committee might eventually decide on. Furthermore, the present document does not propose specific legal text for the elements.
6. Potential annexes are listed in section II.F of the present document, drawing on the submissions from Member States. A complementary information document prepared by the secretariat³ details information, emerging from the submissions, related to the potential annexes.
7. **The present document includes boxed comment paragraphs with background information. Such paragraphs are meant to help readers navigate the document and are not intended for negotiation. Headings and subheadings have been included to provide a structure for the document and are also not intended for negotiation.**
8. The options identified are an attempt to capture the proposals contained in Member States' submissions while highlighting their respective nuances in a concise manner. Each option presented represents a way of addressing an issue, in whole or in part. The options represent choices, but do not

¹ All submissions are available under the pre-session submissions tab at <https://www.unep.org/events/conference/second-session-intergovernmental-negotiating-committee-develop-international>.

² The full document title is "Potential elements, based on provisions in paragraphs 3 and 4 of United Nations Environment Assembly resolution 5/14, including key concepts, procedures and mechanisms of legally binding multilateral agreements that may be relevant to furthering implementation and compliance under the future international legally binding instrument on plastic pollution, including in the marine environment".

³ UNEP/PP/INC.2/INF/2.

necessarily correspond to articles of the future instrument. In some cases, selecting one option necessarily precludes the selection of another, while in other cases options could complement one another. In addition, the secretariat identified gaps in the options provided in the submissions and in such cases included additional options for the committee's consideration. The identified gaps are footnoted throughout the document.

II. Potential options for elements towards an international legally binding instrument, based on a comprehensive approach that addresses the full life cycle of plastics as called for by United Nations Environment Assembly resolution 5/14

A. Objective(s)⁴

Comment: The broad objective or objectives of an instrument, together with the other provisions, in particular those of the potential preamble, scope and principles, guide its interpretation and implementation. In order to keep the set of options in relation to the objective or objectives of the instrument manageable, while preserving the wealth of information contained in the submissions, some of the nuances related to the objective(s) have been captured in the list of potential options for introductory elements.

9. The committee may wish to consider using one, or a combination, of the following statements of objective of the instrument:

(a) End plastic pollution; protect human health and the environment from its adverse effects throughout the life cycle of plastic.

(b) Protect human health and the environment from the adverse effects of plastic pollution throughout the life cycle.

(c) Reduce the production, use and discharge of plastics across their life cycle, including through the promotion of a circular plastics economy with a view to ending plastic pollution by X year and protecting human health and the environment from its adverse effects.

B. Core obligations, control measures and voluntary approaches (including annexes, if any)

Comment: This section proposes potential options for core obligations, together with related control measures and voluntary approaches. The potential options are drawn from the discussions at the first session of the intergovernmental negotiating committee and the submissions to the secretariat. The potential options identified seek to capture the proposals contained in Member States' submissions while highlighting their respective nuances in a concise manner. The options are grouped into 12 possible core obligations with potential control measures and voluntary approaches that could be adopted. This is intended to assist in structuring the deliberations of the intergovernmental negotiating committee, and does not necessarily correspond to articles of the future instrument. In many cases, selecting one option precludes the selection of another, while in other cases options could complement one another. The options presented represent possible ways to address an issue, in whole or in part, at a particular stage in the plastics life cycle, without prejudice to possible interactions arising from action taken at other stages in the life cycle.

The structure of this section is intended to support the intergovernmental negotiating committee in its deliberations and does not prejudge the structure of discussions or the placement of provisions in the future instrument or whether the related measures would be legally binding or voluntary.

⁴ Headings and subheadings have been included to structure the document and are not intended for negotiation.

1. **Possible core obligation: phasing out and/or reducing the supply of, demand for and use of primary plastic polymers**

*Comment:*⁵ *Reduced use of primary plastic polymers and increased use of recycled material would see a greater flow of plastic being cycled back into the economy as “secondary plastics”, and would result in smaller inflows of new “virgin” plastic and fewer outflows into final disposal (with zero plastic leaking into the environment).*

10. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches:

- (a) Options for targets:
 - (i) **Establish global targets to reduce production** of primary plastic raw material.
 - (ii) **Establish nationally determined commitments or targets.**
- (b) Options for regulating primary plastic polymers:
 - (i) **Impose a moratorium** on primary production of plastic polymers or **ban, limit or reduce** the manufacture, export and import of virgin plastic polymers.
 - (ii) **Apply import and export requirements to parties and non-parties** on a non-discriminatory basis.
 - (iii) **Track types and volumes** of plastic polymers, precursors, and feedstocks manufactured, imported, and exported as well as the quantities and type of chemicals applied in production through transparency and reporting requirements.
 - (iv) **Establish licensing schemes** for production, import and export of virgin and secondary plastic polymers.
- (c) Option for economic tools: **Set market-based measures** such as price-based measures, production permits, licenses, removal of fiscal incentives and a mandatory fee, tariff or tax on virgin plastic production.

2. **Possible core obligation: banning, phasing out and/or reducing the use of problematic and avoidable plastic products**

*Comment:*⁶ *Many plastic products that might be considered problematic and avoidable also represent the bulk of plastic leakage into the environment. Submissions referred to a number of additional terms to describe problematic and avoidable plastic products that Member States may wish to consider, including “single-use”, “short-lived” and “unnecessary”. Research has shown that it would be possible and economically feasible to reduce the consumption of short-lived plastic products by 30 per cent by 2040 while respecting the needs of a growing population and economy, and many countries are already responding to this challenge through a range of measures. Reducing or eliminating the use of problematic and avoidable products could also enhance the economics of recycling and thereby contribute to enabling a market for recycling.*

11. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches:

- (a) **Inventory and monitor production of** raw materials, including those used in plastic commodities, and establish a global baseline.
- (b) Establish **criteria to determine and prioritize problematic and avoidable plastic products**, including unnecessary or short-lived products.
- (c) **Ban, phase out, reduce or control** the production, sale, distribution, trade and use of specific problematic and avoidable plastic products by identified dates (the criteria under (b) above and the list and phase-out dates hereunder could be identified in an annex to the instrument);

⁵ Adapted from UNEP/PP/INC.1/7, para. 31.

⁶ Adapted from UNEP/PP/INC.1/7, para. 85.

(d) **Apply import and export requirements** for listed products to parties and non-parties on a non-discriminatory basis;

(e) **Apply import and export requirements to parties and non-parties** on a non-discriminatory basis.

3. **Possible core obligation: banning, phasing out and/or reducing the production, consumption and use of chemicals and polymers of concern**

***Comment:** Plastic production is associated with the use of chemical additives. Around a quarter of the over 10,000 unique chemicals used in plastics are of potential concern to human health and safety. These chemicals are either added during the production process or are unintentionally added by-products, breakdown products or contaminants.⁷ Banning or, where that is not feasible, reducing the use of hazardous chemicals and polymers of concern in plastics has the potential to protect human health and the environment. The reduction and elimination of hazardous chemicals and polymers of concern can, in conjunction with other measures, contribute to enhancing the recyclability of plastics and thereby to widening the scope of the plastic circular economy.*

12. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches:

(a) Options for regulating chemicals and polymers of concern:

(i) **Ban, phase out, reduce or control** specific polymers and chemicals of concern, or groups of chemicals, **based on criteria identified** to determine polymers and chemicals of concern (list, phase-out date and criteria could be included in an annex to the instrument).

(ii) **Apply import and export requirements** for listed polymers and chemicals to parties and non-parties on a non-discriminatory basis.

(iii) **Apply import and export requirements to parties and non-parties** on a non-discriminatory basis.

(b) Options for increasing transparency:

(i) Track types and volumes of polymers and chemicals applied in production, including through disclosure requirements for plastics throughout the supply chain, and plastic production, use and additives, consistent with national laws.

(ii) Increase transparency through marking (digital watermarks, tracers) and harmonized product labelling, material safety data sheets, product passports and publicly available databases.

(c) Options for accelerating and supporting the transition:

(i) Establish measures to foster innovation and incentivize alternative and substitutes, including through **sustainable or green chemistry and chemical simplification**.

(ii) **Incentivize research and development of sustainable additives and polymers.**

4. **Possible core obligation: reducing microplastics**

***Comment:**⁸ Microplastic release occurs throughout the life cycle of products and is projected to more than double globally, from 2.7 million metric tons in 2019 to 5.8 million metric tons in 2060. Secondary microplastics dominate microplastics leakage. Major sources include road transport (1 million metric tons), the release of dust and fibres (0.81 million metric tons) and wastewater sludge. Microplastics are also released from artificial turf (0.05 million metric tons) during use or after disposal. Primary microplastics are also an important source of leakage. Pre-production plastic pellets (or nurdles) are an example of primary microplastics (0.28 million metric tons), along with microbeads – spherical or amorphous microplastics added to products such as personal care items, fertilizers, paint, detergents, food supplements, hand sanitizers and medicinal products.*

⁷ UNEP/PP/INC.1/7, para. 23.

⁸ Adapted from UNEP/PP/INC.1/7, para. 37.

Addressing microplastic leakage could reduce environmental and health risks associated with plastic pollution across the life cycle.

13. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches:

- (a) Options for addressing intentional use:
 - (i) **Ban, phase out, reduce or control the use of intentionally added microplastics** to avoid the potential release of microplastics into the environment from certain sources (list could be identified in an annex to the instrument).
 - (ii) **Ban, phase out, reduce or control the production, sale, distribution, trade and use of microplastics and products** containing intentionally added microplastics.
- (b) Options for addressing unintentional releases:
 - (i) **Minimize the risk of leakage of plastic pellets** from production, handling, transport and the use of certain products.
 - (ii) **Support innovative wastewater treatment mechanisms** to prevent the release of microplastics into waterways.
 - (iii) Developing guidelines on best available technology and best environmental practices to reduce release of plastics, including for design, in the washing, textile, tyre, and road marking industries.

5. Possible core obligation: strengthening waste management

***Comment:** An increase from an estimated 353 million metric tons per year of plastic waste in 2019 to 1,014 million metric tons per year in 2060 is expected under a business-as-usual scenario.⁹ Environmentally sound management and disposal of plastic waste need to be strengthened around the world. Small island developing States in particular are facing unique challenges. EPR schemes can make producers responsible for the environmental impact of their products throughout the life cycle, accelerating the market for waste recycling, incentivizing producers to create products with circularity in mind and reducing leakage of plastic waste into the environment. Action taken at other stages of the life cycle, in particular earlier in the cycle, may also reduce the amount and nature of the waste to be managed, thereby facilitating effective implementation of waste management systems.*

14. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches to strengthen waste management:

- (a) Options for enhancing waste management capacity and promoting innovation:
 - (i) **Deploy and foster the development of technologies** for the collection, recycling and disposal of plastic waste.
 - (ii) **Set a target** for reducing the generation of plastic waste that needs final disposal operations such as landfilling and incineration.
 - (iii) Develop **guidance** for areas such as:
 - a. **Encouragement of investment in waste management infrastructure;**
 - b. **Sampling, analysis, monitoring, reporting and verification** of plastic waste in the environment, to support policymakers in measuring the impact of implemented targets and policies;
 - c. **Specifications for containers, equipment and storage sites containing plastic waste.**
 - (iv) Promote research for innovation.

⁹ Adapted from UNEP/PP/INC.1/7, para. 24.

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- (b) Options for regulating plastic waste:
- (i) **Regulate the movement, and end of life management of plastic waste** to reduce leakage from mismanaged waste.
 - (ii) **Prohibit the following dangerous practices:** open burning, incineration, co-firing in coal-fired power plants and other waste-to-energy processes, co-processing in cement kilns, and chemical recycling.
 - (iii) **Establish guidance and tools for decision-making on waste recycling practices** (to avoid lock-ins to solutions that harm human and environmental health).
 - (iv) Set **indicators and obligations** for plastic waste collection, sorting and recycling, especially at the national level.
 - (v) Require **producers** to prepare an **action plan that includes individual waste reduction targets**.
- (c) Options related to illegal dumping and disposal of plastic waste:
- (i) Implement measures to ensure the collection, sorting, management, and disposal of plastic waste in an environmentally sound and safe manner.
 - (ii) Rely on the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal where appropriate.
 - (iii) Establish surveillance systems and quotas for **exports of plastic waste**.
 - (iv) **Prohibit or control transboundary movement of plastic waste**, except where this ensures circularity;
 - (v) Develop a **streamlined permit process for transboundary movement of plastic waste** to countries where recycling facilities exist with sufficient capacity;
 - (vi) **Apply a timetable for control measures on transboundary movements of plastic waste**, in particular those from developed countries to developing countries.
- (d) Options for promoting EPR and enabling a market for recycling:
- (i) Adopt measures to **strengthen the demand for secondary plastics** and facilitate environmentally sound plastic scrap recycling, including by using public procurement to drive demand for plastic products containing higher recycled content, where feasible.
 - (ii) Set **indicators** for the plastic waste recycling rate, especially at the domestic level.
 - (iii) **Establish EPR systems to incentivize recycling**, taking into account national circumstances. Options for such systems include:
 - a. **Action plan programmes** in which fees are charged to plastic manufacturers and plastic product producers;
 - b. A **set of guidelines** for EPR systems.¹⁰
 - (iv) Provide **financial support and tax exemptions** for recycling projects.
 - (v) **Establish best available technologies** for recycling to ensure alignment with the Paris Agreement (or with principles of sustainable banking and investment).
 - (vi) Establish a **requirement that polymer producers invest** in the volume of recycling facilities needed to recycle all the plastic they produce that could become plastic waste.

¹⁰ To keep the present document as succinct as possible, proposals for this and other types of guidelines and criteria will be compiled in a separate information document.

6. Possible core obligation: fostering design for circularity

*Comment:*¹¹ The design phase plays an important role in ensuring reuse and recyclability while addressing the use of chemicals of concern. Improving the design of plastic products and packaging for recycling could expand the share of recyclable plastic by improving its profitability. Designing to facilitate maintenance, collection, sorting, reuse, repair and repurposing and ensuring that plastic products and their additives do not hinder or disrupt the recyclability of other plastic products in the same waste streams could play an important role in promoting sustainable production and consumption of plastics.

15. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches:

- (a) **Establish circularity criteria and guidance for design and production of plastic products and packaging** to encourage, enhance and enable value recovery processes and systems; high volume and problematic product categories could be prioritized, using a “start and strengthen” approach (criteria and guidance could be included in an annex to the instrument).
- (b) Introduce a requirement for plastic products and packaging put on the market to **conform to circularity design criteria**.
- (c) Establish **national requirements for design criteria** based on a **global harmonized system** and **methodologies** to promote circularity of plastics.
- (d) **Establish labelling measures** for plastic products and packaging in the light of the criteria and guidance to allow informed choices by consumers.
- (e) Set a **target for the required minimum recycled content** of plastic products on the market.
- (f) Establish a **central data exchange registry** where the secretariat can make related information available.

7. Possible core obligation: encouraging reduce, reuse and repair of plastic products and packaging

*Comment:*¹² The reduction, reuse and repair of products and packaging can be facilitated through the product design stage. Reuse schemes can contribute to resource efficiency. They have the potential to decrease life cycle greenhouse gas emissions by 60 to 80 per cent compared to emissions of single-use plastic products. It is also estimated that new reuse schemes and delivery models could create 1.4 million jobs globally by 2040.

16. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches:

- (a) Option for targets: Set targets for the reduction, reuse and repair of plastic products.
- (b) Options for regulating and encouraging reduction and reuse of plastics:
 - (i) Request the governing body to **develop and adopt general and sectoral guidelines for reduction and reuse**.
 - (ii) **Encourage reduction and reuse** of plastic products, such as containers and bottles, **including through service delivery systems**.
 - (iii) Recommend that parties promote reuse through collection of used plastics **by production sector**.
 - (iv) Apply **harmonized product design standards, certifications and requirements**, including for certain plastic products and packaging.
 - (v) **Encourage reduction and reuse** of plastic products, including fees, tariffs or tax incentives, EPR schemes, deposit refund schemes and product take-back, right-to-repair requirements and remove trade barriers.

¹¹ Adapted from UNEP/PP/INC.1/7, para. 87.

¹² Adapted from UNEP/PP/INC.1/7, para. 98.

8. Possible core obligation: promoting the use of safe, sustainable alternatives and substitutes

Comment: Encouraging the use of safe, sustainable substitutes and alternatives to traditional plastics, such as alternative materials and biodegradable or compostable materials, could reduce the health risks associated with plastic pollution and promote circularity in the plastics industry. It could also promote innovation and open new sustainable market opportunities.

17. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches:

- (a) Options for enhancing research and development:
 - (i) **Provide platforms** for sharing information on the development of safe, sustainable alternatives and substitutes.
 - (ii) **Establish market tools (or fiscal policy incentives) for enhancing research and development** of alternative products and technologies.
- (b) Options for reviewing and enabling the use of safe, sustainable alternatives and substitutes:
 - (i) Establish a certification scheme **for plastic products**.
 - (ii) **Task a technical review committee** (comparable to the Technology and Economic Assessment Panel under the Montreal Protocol on Substances that Deplete the Ozone Layer) with **assessing criteria** for the sustainable production and use of plastics and the availability of safe alternatives and substitutes, set out the criteria in annexes to the instrument, and recommend possible adjustments to such annexes or amendments to the instrument (including new annexes).
 - (iii) Develop **clear mechanisms for funding, technical support and transfer of technology** for the development of natural alternatives to plastics, in particular in small island developing States.
 - (iv) Use **economic instruments**, such as fees, tariffs, taxes, subsidies, and tradable permit systems, to incentivize a reduction of plastic use and the adoption of sustainable alternatives.

9. Possible core obligation: eliminating the release and emission of plastics to water, soil and air

Comment: Once plastics are released into the environment they are transported by various means and processes to even the most remote places. It has been estimated that more than 1,000 rivers account for 80 per cent of the annual releases of plastic waste to the oceans from global riverine systems (ranging between 0.8 and 2.7 million metric tons per year), with small urban rivers among the most polluting. Plastic pollution is also found in the air. Research is also raising concerns about the contribution of plastic to air pollution and the potential risks to human health through the inhalation of plastics. Open burning of plastics results in the release of toxic chemical substances and particles such as dioxins, furans, mercury and polychlorinated biphenyls, posing serious risks, in particular to the 11 million informal entrepreneurs who work closely with waste.¹³ Moreover, throughout its life cycle, plastic contributes to climate change. In 2019, plastics generated 1.8 billion metric tons of greenhouse gas emissions – 3.4 per cent of global emissions – with 90 per cent of those emissions coming from plastics production and conversion from fossil fuels.

Fishing gear is particularly problematic, with a number of existing initiatives addressing plastic pollution from fishing gear, including Voluntary Guidelines developed by the Food and Agriculture Organization (FAO) of the United Nations on the marking of fishing gear¹⁴ to provide practical instructions on marking methods for the main types of fishing gear in order to identify ownership. Furthermore, the International Maritime Organization (IMO) developed a Strategy to address marine plastic litter from ships¹⁵, which includes measures to address abandoned, lost or otherwise discarded fishing gear.

¹³ UNEP/PP/INC.1/7, paras. 39 and 48.

¹⁴ <https://www.fao.org/documents/card/en/c/cc4251en>.

¹⁵ <https://www.imo.org/en/Home/PageNotFound?aspxerrorpath=/en/MediaCentre/HotTopics/Pages/marinelitter-default.aspx>.

18. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches:

- (a) Reduce and, where feasible, eliminate **releases of plastics to water, soil and air** (general and sectoral measures could be listed in an annex to the instrument, including wastewater, industrial facilities, aquaculture, agriculture and the fishing industry, and transport).
- (b) Develop and use **the best available technology and best environmental practices**, including environmental and emission/effluent standards, to minimize and eliminate pollution from all stages of the plastic life cycle.
- (c) Prohibit dangerous practices to **prevent the production and releases of toxic emissions** from plastic waste management.
- (d) Take effective measures to **prevent and reduce loss of fishing gear containing plastic** and leverage existing efforts, including those of the Food and Agriculture Organization of the United Nations, and the International Maritime Organization.

10. Possible core obligation: addressing existing plastic pollution

Comment: Existing pollution is of concern and may need specific remediation activities, particularly in the marine environment. Plastic has certain legacy issues, particularly with the long lifespans of plastics applications that can lock in waste for decades; in construction, for instance, more than 90 per cent of waste up until 2040 will be from plastics produced before 2019.¹⁶

19. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches:

- (a) Options for addressing existing plastic pollution:
 - (i) Take measures to remediate plastic pollution in the environment, including in the marine environment and **areas beyond national jurisdiction**, taking into account the draft agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.
 - (ii) **Cooperate to develop strategies to identify, prioritize and address areas of legacy waste.**
- (b) Options for sector/context-specific measures:
 - (i) **Eliminate ghost gear pollution in the environment**, particularly the marine environment, in collaboration with the Food and Agriculture Organization of the United Nations and the International Maritime Organization.
 - (ii) Conduct **remediation activities in specific contexts** such as accumulation sites on coasts, rivers and estuaries, urban mining and unregulated landfills, as feasible and justified from a socioeconomic perspective. Priority could be given to plastic pollution hotspots and measures that could have a positive local or regional impact on human health or the environment and to minimizing negative effects to ecosystems.
 - (iii) **Develop criteria** and guidelines on best available techniques and best environmental practices, including to ensure that clean-up activities respect biodiversity. Options include:
 - a. Identifying indicators for hot spots where quantities and types of litter endanger marine or other species or habitats;
 - b. Encouraging the adoption of targeted removal measures in national action plans (NAPs) on a voluntary basis (e.g., clean-up activities and awareness-raising initiatives).

¹⁶ Ibid., para. 91.

11. **Possible core obligation: facilitating a just transition, including an inclusive transition of the informal waste sector**

Comment: Environment Assembly resolution 5/14 recognized the significant contribution made by workers in informal and cooperative settings to the collecting, sorting and recycling of plastics in many countries. A just transition towards an environmentally sustainable economy can contribute to the goals of decent work for all, social inclusion and the eradication of poverty.¹⁷

20. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches:

(a) Establish a **mechanism to ensure a fair, equitable and inclusive transition for the industry and affected workers, informal waste workers and affected communities**, particularly in developing countries;

(b) Establish a **requirement for private waste management companies to collect plastic waste from informal waste picker cooperatives or associations, where relevant, and establish gradual schemes for their formalization**. As these cooperatives or associations formalise, the requirement for companies to collect from waste picker cooperatives or associations should be geared toward the formal ones.

(c) Improve working conditions for workers, including waste pickers, including by providing **legal recognition and support** for informal waste pickers, such as **access to health care, education and social security benefits**.

(d) Integrate the **informal waste sector** into the plastics value chain and promote a circular economy through a “just transition programme”.

(e) Establish a requirement to use **fees derived from EPR schemes to fund** an upgrade of infrastructure and technical and management skills for informal waste pickers to function as waste collection and sorting companies.

12. **Possible core obligation: protecting human health from the adverse effects of plastic pollution**

Comment: The links between plastic, with its associated chemicals, and plastic pollution, with its detrimental effects on human health and the environment, are increasingly clear. Environment Assembly resolution 5/14 affirmed the importance of cooperation, coordination and complementarity among relevant regional and international conventions and instruments, with due respect for their respective mandates, to prevent plastic pollution and its related risks to human health and adverse effects on human well-being and the environment. Mindful of the precautionary approach as set forth in the Rio Declaration, further research can contribute to better understanding of the health effects of plastic pollution, including microfibres and other plastic microparticles, on humans, to understand the potential transfer of microplastics and hazardous chemicals to crops and animals and to inform decision-making.

21. The committee may wish to consider including some or all of the following potential options for control measures and voluntary approaches:

(a) Options for assessing and evaluating risks:

- (i) **Evaluate risks caused by plastic and plastic pollution for human health.**
- (ii) Conduct further research on the **adverse effects of plastic and plastic pollution on human health.**

(b) Options for cooperation:

- (i) **Promote cooperation, collaboration and exchange of information** with the World Health Organization, the International Labour Organization and other intergovernmental organizations.¹⁸
- (ii) Improve the **One Health** approach.

¹⁷ International Labour Organization submission.

¹⁸ Gap identified by the secretariat. This language is modeled after that of the Minamata Convention on Mercury.

C. Means of implementation

***Comment:** Means of implementation are the resources, policies and actions needed to implement the provisions of a legally binding instrument. They contribute to ensuring that the instrument's goals are achieved and that all parties are able to meet their obligations. In the context of an international agreement, "means of implementation" typically refers to the financial, technological and capacity-building support required to enable developing countries to meet their obligations under the agreement.*

*The committee may wish to consider a range of means of implementation, including **arrangements for capacity-building and technical assistance, technology transfer on mutually agreed terms, and financial assistance**, in line with paragraph 3 (n) of Environment Assembly resolution 5/14.*

The options identified below seek to capture the proposals in Member States' submissions and take into account experience gained with existing multilateral environmental agreements.

22. In terms of the general approach, the committee may wish to consider the following potential options:

- (a) Developing **stand-alone provisions** for the various categories of means of implementation or, alternatively,
- (b) Developing an **integrated mechanism** for the provision of means of implementation.

23. In addition, the committee may wish to consider including provisions stating that the means of implementation should be informed by the best available science, traditional knowledge, knowledge of Indigenous Peoples and local knowledge systems, as well as socioeconomic information and assessments related to plastic pollution.

1. Financial assistance

***Comment:** Multilateral instruments often provide for financial assistance and mobilize financing to support effective implementation of their provisions. Financial assistance may support, in particular:*

- (a) *Building capacity: Financial assistance can be used to build capacity to implement actions required under the instrument, including by providing training, education and technical assistance to individuals and organizations.*
- (b) *Meeting obligations: Some obligations, such as the development of infrastructure, adoption of new technologies or implementation of monitoring and reporting systems, may require significant financial resources to meet. Financial assistance can help parties meet such obligations.*
- (c) *Promoting equity: Financial assistance can promote equity and enhance the capacity of all countries to effectively implement the provisions of the instrument, taking into account the priorities and needs of developing country parties, especially those with significant capacity constraints, such as least developed countries and small island developing States, by providing them with the resources they need to effectively participate in the implementation of the instrument.*
- (d) *Supporting innovation: Financial assistance can help to support efforts towards the development of new technologies or the adoption of innovative solutions to address complex issues, by providing resources to support research and development, adoption of new technologies and dissemination of information and best practices.*

24. The committee may wish to consider ways to provide for **new, additional, stable, accessible, adequate, timely and predictable** flows of financial resources to support the implementation of the instrument, including some or all of the following potential options:

- (a) Establish a **dedicated plastics multilateral fund or funds** through the new instrument, with Member States and other funding sources¹⁹ contributing funds to support the

¹⁹ A multilateral fund could be set up to receive contributions from various funding sources, including EPR schemes, official development assistance, taxes on trade, fees and taxes on unnecessary plastics and other sources as defined by the agreement.

instruments' objectives. Modalities could include management of the fund or funds by the governing body.

(b) Expand an existing multilateral fund: A dedicated avenue for this legal agreement could be established within an existing multilateral fund to provide sustained funding for the implementation of the plastics treaty.

(c) **Consider a hybrid approach** that combines elements of the above options. For example, the establishment of the fund could be outlined in the legal agreement, but the governance structure and funding mechanisms could be modelled on, adapted to or hosted by an existing environmental fund such as the Global Environment Facility. This approach could help leverage existing resources and expertise while maintaining a unique identity and purpose for the multilateral fund.

(d) Establish an **additional fund dedicated to tackling existing pollution in the environment and the remediation of legacy plastic waste** to reduce and eliminate the release of plastics (and microplastics) to air, water and land, including in the marine environment, targeted specifically at supporting vulnerable countries and small island developing States that bear a heavy burden of legacy plastics on their shorelines. Modalities could include any of the above or other options.

(e) **Explore innovative and other financing opportunities**, nationally or globally, for tackling plastic pollution, where private-sector resources can play an enhanced role, including the following:

- (i) **Plastic fees, taxes or levies:** Implement a fee, tax or levy on plastic production, use or disposal to generate revenue that would finance initiatives to reduce plastic waste. For example, the tax could be applied to manufacturers or importers of plastic polymers and products and the revenue could be used to fund the instrument's objectives, including recycling programmes, product redesign and public awareness campaigns.
- (ii) **EPR system:** Set up an EPR system that requires plastic producers and importers to take responsibility for their products throughout their life cycle, from production to disposal, to incentivize collection and sorting, including by informal waste pickers, to initiate investment in recycling facilities, and to fund studies of advanced recycling and material recovery methodologies. The system would include fees paid by plastic producers, which would be used to fund initiatives aimed at reducing plastic waste, such as product design, material substitution and end-of-life management.
- (iii) **Public-private partnerships:** Foster public-private partnerships to fund and implement initiatives aimed at reducing plastic waste. Companies could contribute funding, expertise and resources to support projects that align with their sustainability goals and the instrument's objectives.
- (iv) **Credit schemes:** Use credit schemes to finance initiatives that reduce plastic waste. The credits would be generated by projects that reduce greenhouse gas emissions, such as recycling, and sold to companies and governments to offset their carbon footprint.
- (v) Funding through private-sector entities involved in the life cycle of plastic: Introduce a **packaging fee**.
- (vi) **Product charges:** Introduce charges on specific plastic products, such as single-use items, to encourage a reduction in their use or increased use of more sustainable alternatives. The revenue generated could be used to finance initiatives aimed at reducing plastic waste.
- (vii) **Other market-based approaches**, such as pricing mechanisms and financial incentives, to encourage or discourage certain behaviours or practices.
- (viii) **Voluntary contributions:** Encourage voluntary contributions from foundations, individuals and businesses to support initiatives aimed at tackling plastic pollution.

2. Capacity-building

Comment: Capacity-building can help to ensure that all parties have the information and expertise they need to effectively implement the provisions of the instrument. Capacity-building provisions can promote cooperation, technology transfer and education and training, and, along with other provisions, establish networks for knowledge and know-how exchange to assist in the implementation of obligations under the instrument. It could also help ensure that all countries, especially developing countries and small island developing States, have access to adequate, timely capacity-building support.

25. The committee may wish to consider including some or all of the following potential options for capacity-building:

- (a) Provide for the establishment of **capacity-building programmes** that are **country-driven** and responsive to the specific priorities and national circumstances of each country. Developing-country parties, especially least developed countries and small island developing States, could receive special attention and support.
- (b) Provide for the governing body to develop a **capacity-building strategy** or mechanism to:
 - (i) promote the development, transfer and dissemination of environmentally sound technologies, best practices, guidelines, and standards on issues related to the instrument.
 - (ii) strengthen the **technical, institutional and human resource capacity of developing countries** to effectively implement the provisions of the instrument, including in areas such as scientific research, data management and analysis.
 - (iii) promote cooperation and enhance the capacities of developing country parties to monitor and report on their implementation of the provisions of the instrument.
- (c) Provide for the development and implementation of **training and education** programmes to enhance the knowledge and skills of government officials, industry representatives and other stakeholders on issues related to the instrument, including waste management, EPR and sustainable consumption and production.
- (d) Support the establishment of **regional and national networks** to promote information-sharing, collaboration and capacity-building on issues related to the instrument.
- (e) Encourage the **involvement of the private sector, civil-society organizations and local communities** in capacity-building activities, including through public-private partnerships and corporate social responsibility initiatives.
- (f) Provide for the development and implementation of **monitoring and evaluation frameworks** to track the effectiveness of capacity-building activities and identify areas for improvement.

3. Technical assistance

Comment: Technical assistance may be required for developing countries to effectively implement the provisions of a treaty and achieve its objectives. Financial assistance modalities established under the instrument could provide for financial and technical support for developing countries, and for developed countries to contribute to such financing, in accordance with the principle of common but differentiated responsibilities.

26. The committee may wish to consider including some or all of the following potential areas for “adequate and timely” technical assistance:

- (a) Support for waste management and recycling infrastructure;
- (b) Development of alternative materials and technologies;
- (c) Capacity-building to enhance the skills and knowledge of stakeholders in developing countries;

(d) Technology transfer to enable developing countries to adopt new technologies and practices for reducing plastic pollution.

27. The committee may wish to consider including some or all of the following potential areas for technical assistance:

(a) **Capacity-building and institutional strengthening**, including training, workshops and other forms of knowledge and skills transfer;

(b) **Information exchange and knowledge-sharing**, including the dissemination of best practices, lessons learned and other relevant information;

(c) **Monitoring, reporting and verification**, including the development and implementation of monitoring, reporting and verification systems and procedures.

4. Technology transfer on mutually agreed terms

Comment: Technology transfer is the transfer of knowledge, technologies and expertise to other countries and jurisdictions. To ensure equity among countries and regions, especially the most vulnerable countries and regions, including small island developing States, countries that lack the necessary technological capabilities and resources to implement the instrument effectively may need to be supported. Technology transfer allows developing countries to access technologies and knowledge that can help them meet their obligations under the future instrument. Technology transfer supports the implementation of the instrument, as it can promote technological innovation, facilitate implementation, support capacity-building and reduce the technology gap between developed and developing countries.

28. The committee may wish to consider the following potential options:

(a) Developing a **clear definition of “technology transfer on mutually agreed terms”**: Member States may wish to establish a clear definition of “technology transfer on mutually agreed terms” to ensure that all parties involved understand what it entails. A clear definition will help to prevent misunderstanding and disputes that could arise from different interpretations of the term.

(b) Considering **the language used for technology transfer in the Minamata Convention**.

(c) Fostering an **enabling environment for technology transfer**: An environment conducive to technology transfer could be created, where intellectual property rights are protected and access to technology is facilitated. This can be achieved through measures such as creating supportive legal and regulatory frameworks, providing technical assistance and capacity-building and promoting partnerships and collaborations.

(d) Promoting **technology needs assessment and technology cooperation**: The instrument could provide for the development of technology needs assessments to identify priority areas for technology transfer. Technology cooperation can then be facilitated through partnerships between developed and developing countries, with developed countries providing access to appropriate technologies and technical expertise. This would also allow technology transfer to not be only nationally driven and responsive to country needs but also appropriate.

(e) Developing and implementing **effective mechanisms for technology transfer**: Effective mechanisms for technology transfer, including transfer agreements, licensing agreements and joint ventures, could be developed and implemented. Such mechanisms should be designed to suit the needs of individual countries and ensure that mutually agreed terms are upheld.

(f) Considering what role (sub)regional centres under the Basel Convention and United Nations (sub)regional centres can play in technology transfer.

D. Implementation measures

The committee may wish to consider a range of implementation measures, including NAPs, national reporting, provisions on compliance, periodic assessment and reporting and a multi-stakeholder agenda, in line with paragraphs 3 (d)–(h) of Environment Assembly resolution 5/14.

1. National action plans

Comment: Environment Assembly resolution 5/14 refers to the development of provisions to develop, implement and update NAPs reflecting country-driven approaches to contribute to the objectives of the instrument; and to promote NAPs to work towards the prevention, reduction and elimination of plastics pollution and support regional and international cooperation.²⁰ NAPs can play an important role in national- and local-level implementation. They can be the driver in ensuring that nationally appropriate policy, legislative and institutional arrangements are put in place to implement legally binding provisions of the instrument and develop additional policy measures. They can also be effectively used to engage key stakeholders in national-level implementation through both participation in the development of NAPs and institutional arrangements for their implementation. In order to ensure progress and raise the level of ambition over time, NAPs are often time-bound and based on clear benchmarks, clear and measurable targets and well-defined actions and outputs. They can also include follow-up arrangements and a built-in periodic review and update.

At the international level, NAPs can serve as a tool to demonstrate how a party contributes to achieving the objective of the instrument. They can represent an effective means for sharing information on how the instrument is being implemented at the national level and on best practices. For NAPs to be effectively used at the intergovernmental level, transparency and comparability of information is important. This can be achieved through a commonly agreed sets of principles, elements and approaches that at the same time allow for the nationally appropriate nature of NAPs.

29. The committee may wish to consider including one or more of the following possible obligations for parties in relation to NAPs:

(a) Develop and implement a **NAP reflecting nationally defined arrangements and measures across the life cycle of plastics**, to implement the provisions of the instrument and contribute to the achievement of its objective.

(b) **Review and update** the NAP on a periodic basis (every [--] years) to ensure the progressive reduction of plastic pollution in line with the objective of the instrument, taking into account best available science and innovation and any relevant guidance from the governing body.

(c) Submit NAPs and revised NAPs **through the secretariat**.

30. The committee may wish to consider the following potential options for **generally applicable guidance** on NAPs:

(a) A set of **common elements and minimum content** of NAPs, to be specified in an annex to the instrument;

(b) **Harmonized guidance on NAPs**, to be developed by the governing body to facilitate preparation and submission of NAPs and promote their transparency and comparability across parties while allowing for their nationally appropriate nature;

(c) Either (a) or (b) above, in combination with a **NAP evaluation upon submission and following completion of the NAP. Evaluation to be carried out by the specially established scientific, technical and economic panels** in relation to the level of ambition and challenges and the needs encountered.

²⁰ Environment Assembly resolution 5/14, paras. 3 (d) and (e).

2. National reporting

Comment: Environment Assembly resolution 5/14 refers to the development of provisions to specify national reporting, as appropriate.²¹ National reporting allows individual parties to an agreement to share their experiences, successes and challenges. It serves as one of the key tools for governing bodies of multilateral environmental agreements to identify needs and prioritize support for implementation. It also serves as means of experience-sharing and enables exchange of good practices and innovative approaches. The collective of the parties can rely on information from such reports to establish the overall trends in implementation and track progress. Reporting can thus be an important component in evaluating the effectiveness of the instrument overall. At the national level, the preparation of reports helps drive implementation, promotes better monitoring and can serve an effective tool for engaging key stakeholders, including civil society, the private sector and the scientific community. For some developing countries, effective reporting may itself require capacity-building and assistance. Some Member States, in their submissions, stressed that any reporting framework should take into account national capabilities and circumstances.

31. The committee may wish to consider the following in relation to national reporting:
- (a) Including one or more of the following potential options in relation to the submission of reports:
 - (i) A legally binding obligation to periodically (every [--] years beginning in year [--]) submit national implementation reports;
 - (ii) An **encouragement** to submit national implementation reports;
 - (iii) The national implementation reports to be submitted **through the secretariat** and be made available on the website;
 - (b) Including one of the following potential options in relation to the format of reports:
 - (i) Core elements of the reporting requirements to be identified in **(an) article(s) of the instrument**, and the **governing body to develop a common reporting framework** for reporting by all parties;
 - (ii) Parties to determine their **own reporting format** when submitting their national implementation reports;
 - (c) Including one of the following potential options for the scope of reports:
 - (i) National implementation reports will:
 - a. Address the implementation of the **legally binding obligations and voluntary approaches** under the instrument; and/or
 - b. Provide **detailed quantifiable information** on the progress in the implementation of the **NAPs**;
 - (ii) The scope of the national implementation reports will **be determined by the submitting party**.
 - (iii) The governing body will provide guidelines on what is to be included in national reports.²²
 - (d) Potential option for the review of reports: The **secretariat** will review and verify national implementation reports, with a view to communicating the outcomes of the review to the governing body, including with a view to identifying capacity needs and constraints and facilitating efforts to match the **available resources and capacity-building efforts to the needs and constraints identified**.

²¹ Ibid., para. 3 (m).

²² The secretariat has compiled the information received in the submissions and has made it available in an information document.

3. Compliance

Environment Assembly resolution 5/14 refers to the development of provisions to address compliance.²³ Some multilateral environmental agreements contain provisions on the review of parties' compliance with their obligations under the agreement. In many cases, the objective in setting up a review mechanism is both to facilitate implementation of all the provisions of an agreement and to promote parties' compliance with any legally binding obligations. Many mechanisms in place under multilateral environmental agreements consist of a compliance committee or a compliance and implementation committee. Such committees are usually established in the treaty itself, with key features and principles set out in the treaty articles. The modalities for the operations of the mechanism are then set out in the decisions of the governing body.

Generally, compliance provisions address implementation and compliance needs in relation to the substantive provisions of the respective treaty. Some clarity on the scope of the substantive provisions may therefore be needed before the design of the compliance mechanism can be finalized.

The options set out below reflect those identified in the submissions as well as features of implementation and compliance mechanisms traditionally found under multilateral environmental agreements.

32. The committee may wish to consider the following in relation to compliance:
- (a) Establishment, in the body of the instrument, of a mechanism consisting of a committee to facilitate implementation and promote compliance with the provisions of the instrument. The governing body can be mandated to develop modalities and procedures for the operation of the mechanism.
 - (b) Facilitative and non-adversarial nature of the mechanism.
 - (c) One of the following potential options in relation to the scope of consideration:
 - (i) **Implementation** of all provisions and compliance with the **legally binding provisions** of the instrument;²⁴
 - (ii) **Compliance** with the **legally binding provisions** of the instrument;²⁵
 - (iii) **Implementation of the provisions of the instrument**;²⁶
 - (iv) One of options a. to c. above with the addition of the consideration of **systemic issues of implementation or compliance** (issues that relate to common trends with regard to challenges in implementation and which may require attention of the governing body. Such issues usually become evident on review of national reports and/or periodic review of the status of implementation or assessment of effectiveness of the instrument. They are not attributed to an individual party but rather reflect a common challenge faced by a number of parties. Any such systemic issues and the resulting recommendations usually call for action and policy guidance by the governing body of the instrument).
 - (d) Some or all of the following potential options in relation to initiation of consideration of implementation and compliance issues:²⁷
 - (i) **Self-submission** by a party experiencing challenges with implementation or compliance;
 - (ii) Submission by a **party concerning another party's compliance** with its legally binding obligations under the instrument;
 - (iii) Communication from the **secretariat** (e.g., based on information available to it from national reports or other sources of information);

²³ Environment Assembly resolution 5/14, para. 3 (p).

²⁴ Gap identified by the secretariat.

²⁵ Gap identified by the secretariat.

²⁶ Gap identified by the secretariat.

²⁷ Gaps identified by the secretariat.

- (iv) Initiation by a **compliance committee** based on the information available to it (e.g., from the data on the status of submission of national reports or other mandatory information);
- (v) Referral by the **governing body**.
- (e) One of the following potential options in relation to the nature and possible range of measures:²⁸
 - (i) Both **punitive and non-punitive** measures;
 - (ii) **Non-punitive** measures.

4. Periodic assessment and monitoring of the progress of implementation of the instrument and effectiveness evaluation

***Comment:** Environment Assembly resolution 5/14 refers to the development of provisions to periodically assess the progress of the implementation of the instrument and the effectiveness of the instrument in achieving its objectives.²⁹ Effectiveness evaluation might assess the effectiveness of the collective effort by all parties (e.g., akin to the global stocktake under article 14 of the Paris Agreement) and whether any revisions to the instrument's provisions or the annexes or guidelines thereunder may be required in the light of the assessed effectiveness, and take into account the current best available science (akin to the Montreal Protocol standing process to review the need for possible amendments). The key principles and features of such evaluation may be considered for inclusion in the body of the instrument, with further modalities to be developed and reviewed by the governing body.*

Some Member submissions noted the need for the evaluation to be comprehensive, balanced and solutions-oriented, as well as robust, science-based, transparent and cost-effective.

33. The committee may wish to consider the following with regard to periodic assessment of the progress of implementation and effectiveness evaluation:

- (a) One or more of the following options in relation to the purpose of periodic assessment and monitoring:
 - (i) To assess and evaluate **collective progress in achieving the objective(s) of the instrument**, addressing efforts in relation to the implementation of all its provisions;
 - (ii) To evaluate the **sufficiency of the obligations** under the instrument;
 - (iii) To understand **the fulfilment of developed countries' obligations** to provide assistance in managing plastic waste in developing countries through a report developed by the secretariat.
- (b) One or more of the following options in relation to periodicity:
 - (i) The evaluation should take place on a periodic basis while allowing sufficient time for implementation efforts and progress to be made.
 - (ii) The determination of periodicity should take into account sequencing with other relevant processes, including NAPs, national reporting and any scientific and technical assessments.
- (c) One or more of the following options for the related institutional arrangements:
 - (i) An **evaluation process** should be determined in the body of the instrument, with further modalities to **be developed by the governing body**.

²⁸ Experience with other multilateral environmental agreements indicates that the possible range of measures depends on the nature and scope of the substantive provisions of the instrument. Non-punitive measures may include dialogues between the committee and the party concerned; facilitation of technical assistance; recommendations to the governing body regarding possible assistance required; and issuance (or recommendations for issuance by the governing body) of cautions or declarations of non-compliance in relation to legally binding obligations.

²⁹ Ibid., paras. 3 (g) and (h).

- (ii) The instrument should establish an **intergovernmental scientific body** that will track progress on targets and leakage of plastics and microplastic into the environment.
- (iii) The outcomes of the evaluation exercise should be technical in nature and serve as an input for **further policy guidance by the governing body**.
- (d) Sources of information could consist of existing and available sources, including **national reports, scientific and socioeconomic assessments**, recommendations from the **compliance review mechanism** under the instrument and any reports on capacity-building under the instrument.

E. Additional matters

***Comment:** The committee may wish to consider a range of measures to address additional matters in line with relevant paragraphs of Environment Assembly resolution 5/14, including to increase knowledge through awareness-raising, education and the exchange of information;³⁰ to promote research into and development of sustainable, affordable, innovative and cost-efficient approaches;³¹ to consider the best available science, traditional knowledge, knowledge of Indigenous Peoples and local knowledge systems;³² and to promote cooperation and coordination with relevant regional or international conventions, instruments and organizations while recognizing their respective mandates, avoiding duplication and promoting complementarity of action.³³*

1. Awareness-raising and education

***Comment:** Awareness-raising and education can be fundamental to addressing plastic pollution, including in the marine environment, in a sustainable manner. Education and awareness-raising actions can provide affected communities, workers, producers and consumers with information on the impact of plastics pollution on human health and the environment and on the role of recycling, reduced plastic use, waste management and alternatives. Education and awareness can play a key role in enabling a transition to sustainable consumption and production and supporting and empowering affected communities and groups, including the informal sector.*

34. The committee may wish to consider including some or all of the following potential options related to awareness-raising and education:
- (a) In relation to scope and focus, the instrument could promote:
 - (i) Behaviour change;
 - (ii) Capacity development;
 - (iii) Sharing of information on environmental impact, sustainability, reduction of plastic use and demonstrated successes;
 - (iv) Increased awareness and understanding of the instrument's goals and objectives.
 - (b) In relation to the mechanism(s), the instrument could include provisions for:
 - (i) A **communication and education plan** for the instrument, involving all stakeholders;
 - (ii) **Educational and awareness-raising programmes and citizen campaigns;**
 - (iii) **Public participation** and public access to information;
 - (iv) **Training** at the national, regional and international levels, including exchange visits and specific dedicated training;
 - (v) The role of the Global Partnership on Plastic Pollution and Marine Litter and other multistakeholder entities;

³⁰ Ibid., para. 3 (j).

³¹ Ibid., para. 3 (o).

³² Ibid., para. 4 (d).

³³ Ibid., para. 3 (k).

- (vi) Guidance on plastic pollution in **school curriculums** and enhance **local environmental education** related to the impact of plastic pollution;
- (vii) Knowledge transfer strategies around the health risks of plastic pollution, and potential alternatives and the importance of behavioural change.

2. Exchange of information

***Comment:** The exchange of information can make an important contribution to ensuring the effective implementation of an agreement and in keeping the agreement aligned with the latest available science and technology. Information exchange at the regional and international levels can help disseminate best practices, successes to be scaled up and lessons learned, and can provide a useful means of sharing insights into the latest scientific research and technological innovations.*

35. The committee may wish to consider including some or all of the following potential options related to exchange of information:

- (a) In relation to **scope and focus**:
 - (i) Exchange information on best practices, knowledge, research and technologies.
 - (ii) Exchange information on sustainable consumption and production, environmentally sound waste management, sources of plastic pollution, human and animal exposure to plastic pollution and the associated risks and reduction options, among policymakers, stakeholders and the public.
 - (iii) Exchange information, if any, on the wisdom of indigenous systems and practices.
- (b) In relation to the **mechanism(s)**:
 - (i) **Include mandatory disclosure** (of harmonized information on chemical/material composition of plastic products and its intended uses throughout the life cycle).
 - (ii) **Establish a registry** – the secretariat should establish a central data exchange where information reported by parties could be made available, initiated through the instrument and reflected in **NAPs**.
 - (iii) **Include prior informed consent for transboundary movements** through an information exchange mechanism.
 - (iv) **Build on ongoing voluntary initiatives** such as the and the New Plastics Economy Global Commitment from the Ellen MacArthur Foundation and the United Nations Environment Programme (UNEP).
 - (v) Use the **multi-stakeholder action agenda** to share knowledge and highlight successes, to replicate and scale sustainable solutions.
 - (vi) **Use regional networks** for information exchange, lessons learned and capacity-building.
 - (vii) **Promote cooperation** with other countries and international organizations.
 - (viii) **Organize events on the sidelines** of governing body sessions to exchange best practices.
 - (ix) Learn from other processes such as those under the Convention on Biological Diversity, SAICM and the United Nations Framework Convention on Climate Change.

3. Research

***Comment:** Research provides the knowledge base for multilateral environmental agreements and can play a key role in filling knowledge gaps, keeping the instrument aligned with recent scientific and technical developments and enabling science-based evaluation of progress. Although not commonly a stand-alone section,³⁴ research is frequently mentioned in related multilateral environmental agreements.³⁵*

A number of submissions referred to specific aspects of research; those have been included in the potential core obligations developed in section II.B of this document, as relevant.

36. The committee may wish to consider including provisions to encourage parties to **promote the cooperation and coordination of research** to improve understanding of plastic pollution and advance technological innovation.

37. The committee may wish to consider including in the instrument a **list of possible functions that could be discharged by potential subsidiary bodies** for scientific and technical cooperation and coordination (linked to potential options identified in appendix II, section C), including:

(a) **Provide** an analysis of information and scientific, technical, technological and socioeconomic advice and recommendations to the governing body.

(b) **Perform** any functions assigned to it by the governing body on the basis of best available science and traditional knowledge, including Indigenous Peoples' knowledge.

38. The committee may wish to consider including provisions to **encourage research into specific areas**, including in relation to:

(a) **The state of current knowledge**, including:

(i) Evaluation of knowledge gaps;

(ii) Knowledge of plastic consumption, production, material flows, sectoral analysis and releases to the environment;

(iii) Analysis of data and tracking of progress on plastic production, use, movement and leakage;

(b) **The impact of plastic pollution**, including:

(i) Impact on human health and the environment, including persistent organic pollutants, and the relationship between plastic pollution, biodiversity loss and climate change;

(ii) Economic and socioeconomic impact;

(iii) Impact of transboundary movements of plastic waste;

(iv) Methodologies relevant to the implementation of the instrument, including methodologies for the monitoring of the environmental, socioeconomic and health effects of plastic pollution and progress towards achieving the objective(s) of the instrument.

(c) **Potential avenues for addressing the problem**, including:

(i) Reduced plastic production and increased reuse and recycling;

(ii) Technological innovation, including development of alternatives;

(iii) Material recycling, chemical recycling, effective waste disposal and use of biodegradable substitute plastics;

(iv) Best available technologies and best environmental practices to address plastic pollution;

³⁴ An exception is found in article 5 of the United Nations Framework Convention on Climate Change (research and systematic observation).

³⁵ See, for example, Stockholm Convention, art. 11; United Nations Convention on the Law of the Sea, part XIII; International Convention for the Prevention of Pollution from Ships, 1973, art. 17 (d); Minamata Convention on Mercury, art. 19; Paris Agreement, art. 7 (7) (c).

- (v) Instrumentation for monitoring presence and levels of plastics in humans;
- (vi) Assessment of the effectiveness, impact and cost of interventions and policies;
- (vii) Increased promotion of publications from developing countries;
- (viii) Comparative analysis of product life cycles of alternatives and assessment of criteria for sustainable production and use of plastics and alternatives.

4. Cooperation and coordination

***Comment:** Environment Assembly resolution 5/14 refers to the development of a provision to promote cooperation and coordination with relevant regional or international conventions, instruments and organizations, while recognizing their respective mandates, avoiding duplication and promoting complementarity of action.³⁶*

Multilateral instruments often provide for cooperation and coordination to support the effective implementation of the provisions of the instrument and to help situate the instrument in the wider international environmental governance landscape. Cooperation and coordination can play an important role in the provision of means of implementation, but also in other parts of the instrument. They also promote complementarity with treaties that address related matters while ensuring that there is no duplication of effort or contradiction in the implementation of the respective obligations.

Member States' submissions referred to other potential cooperation and coordination actors, including non-state actors and public-private partnerships. Given the long-term nature of the instrument, the committee may wish to consider including a general provision mandating the governing body to promote cooperation and coordination with such categories of actors.

39. The committee may wish to consider including provisions for cooperation and coordination with relevant regional or international conventions, instruments and organizations, in particular in respect of some or all of the following:

- (a) Technology transfer and technical innovation: promoting plastic collection and recycling **technologies**; product design, materials and manufacturing processes; sustainable green chemistry; and circular approaches;
- (b) Research: **joint research projects**, including with developing countries;
- (c) Capacity-building, including mechanisms for **capacity-building**;
- (d) Awareness-raising and knowledge-sharing: **exchanging best practices**; and **networks/platforms/forums** for knowledge exchange;
- (e) Technical and scientific cooperation, including **regional platforms or databases**; technical-scientific cooperation projects; and **networks of technical centres**;
- (f) Monitoring.

5. Stakeholder engagement

***Comment:** Environment Assembly resolution 5/14 refers to the development of a provision to initiate a multi-stakeholder action agenda.³⁷ A multi-stakeholder action agenda could provide a space to harness the collective actions of all stakeholders at a global level, driving progress towards solutions and amplifying existing momentum and scale. A multi-stakeholder action agenda could also provide a modality under which initiatives, actions and solutions can be organized and guided to converge and have a measurable collective impact on plastic pollution.*

40. The committee may wish to consider the following with regard to a multi-stakeholder action agenda:

- (a) **Promoting ambitious actions** to address plastic pollution and **promote cooperation** with a wide variety of stakeholders, including by:
 - (i) Promoting high-level engagement;

³⁶ Environment Assembly resolution 5/14, para. 3 (k).

³⁷ Ibid., para. 3 (m).

-
- (ii) Promoting ambitious action and cooperation at the local, regional and global levels;
 - (iii) Mobilizing financial and technical resources from stakeholders;
 - (iv) Sharing knowledge and highlighting successes to replicate and scale sustainable solutions.
- (b) With respect to **mechanisms** of the multi-stakeholder action agenda, considering:
- (i) Following a model similar to the **climate Marrakesh partnership model**, in close association with existing structures and coalitions;³⁸
 - (ii) A **portal** on stakeholder actions;
 - (iii) **Periodic progress reporting** to the instrument's governing body (e.g., self-reported progress on commitments, descriptions of new actions and responses, expert input on specific topics);
 - (iv) **Multi-stakeholder forums, submissions, seminars and side events** and participation in a potential technical expert group.

F. List of potential annexes to the instrument³⁹

41. The committee may wish to consider the following potential options for annexes to be included in the instrument:

- (a) List of problematic and avoidable plastic products; criteria for determining problematic and avoidable plastic products; and possible dates for banning, phase-out, reduction or control (see sect. II.B.2);
- (b) List of polymers and chemicals of concern; criteria for determining polymers and chemicals of concern; and possible dates for banning, phase-out, reduction or control (see sect. II.B.3);
- (c) List of sources to limit the release of intentionally added microplastics (see sect. B.4);
- (d) Circularity criteria and guidance for design and production of plastic products and packaging (see sect. II.B.6);
- (e) Criteria for determining the availability of safe alternatives and substitutes (see sect. B.8);
- (f) Categories of policy measures to reduce and, where feasible, eliminate releases of plastics to water, land and air (see sect. II.B.9);
- (g) List of common elements and minimum content of NAPs (see sect. II.D.1).

³⁸ Gap identified by the secretariat.

³⁹ A number of submissions provided input on possible annexes for the future instrument. Such proposals are included in this list and further details are provided in the related information document.

Appendix I

Additional potential options for elements not explicitly mentioned in the submission template

I. Introductory elements

A. Preamble

Comment: The preamble typically sets out the history and context of the instrument and includes relevant references in the context of international law. It often serves as a place to include some of the concepts and principles that do not find their way into the operative provisions during the negotiations but are deemed important for an understanding of the context of the instrument. The preamble is read in conjunction with the other parts of the instrument and can be used for interpretative purposes. This subsection identifies elements flagged by Member States in their submissions, in their specific proposals for either the preambular paragraphs or other potential elements, that by nature are traditionally found in the preamble of a multilateral environmental agreement. The committee may wish to note that not all of listed possible elements for a preamble will need to be included and, at the same time, other elements of the preamble may be identified as the negotiations progress.

1. The committee may wish to consider the following elements for inclusion in a preamble:¹
 - (a) Acknowledgement of synergies between economy, society and the environment with a view to attaining sustainable development;
 - (b) Recognition of the need to leverage and further develop a circular economy for plastics;
 - (c) Recognition of plastic pollution as a global and transboundary issue that requires a collective and coordinated response;
 - (d) Recognition of the need to end plastic pollution, including through efforts aimed at eliminating the release of plastic into the environment by 2040;
 - (e) Recognition of the important role plastic plays in society;
 - (f) Recollection of the Rio Principles;
 - (g) Recognition of the need for a healthy planet to preserve life for future generations;
 - (h) Recognition of the importance of a just transition;
 - (i) Recognition of a human-rights-based approach, including the rights of Indigenous Peoples;
 - (j) Recognition of the precautional approach;
 - (k) Recognition the importance of the informal sector;
 - (l) Recognition of the special circumstances of countries in need and of national circumstances and capabilities;
 - (m) Recognition of the role of traditional knowledge and traditional knowledge systems, practices and innovation;
 - (n) Recollection of the Guiding Principles on Business and Human Rights.

¹ Discussions on the preamble could take place once the substantive provisions of the instrument have been further developed.

B. Definitions

Comment: Definitions are usually required for terms that will be key to the implementation of the instrument. They may be sourced from other treaties or related processes, scientific documents or other relevant documents or, where internationally recognized definitions do not yet exist, developed for the purposes of the instrument. This subsection does not attempt to establish an exhaustive list or propose that all the terms on the list would need to be defined in the instrument, nor does it seek to define any of the terms at this stage. Rather, it seeks to capture in a list concepts referred to in the submissions and identified in document UNEP/PP/INC.1/6, setting out a glossary of key terms, and in appendix I of document UNEP/PP/INC.1/7, on plastics science, that may need to be defined. The list will need to be reviewed as the negotiations progress.

The committee may wish to note that documents UNEP/PP/INC.1/6 and UNEP/PP/INC.1/7 provide definitions for some of the terms in the following list, as well as guidance on their status in the context of international law or policy.

2. While noting that many key terms are defined in UNEP/PP/INC.1/6 and UNEP/PP/INC.1/7, the committee may wish to consider defining the following terms, as proposed in the submissions:
3. Atmospheric and terrestrial;
 - (a) Environment, including marine environment;
 - (b) Bio-based, biodegradable and compostable plastics;
 - (c) Biodiversity and the climate system;
 - (d) Ecosystems;
 - (e) Essential use;
 - (f) Full life cycle approach;
 - (g) Life cycle assessment;
 - (h) Mountains and water bodies;
 - (i) Plastic pollution;
 - (j) Plastic substitutes and plastic alternatives;
 - (k) Plastics, including microplastics;
 - (l) Problematic and avoidable plastic products;
 - (m) Short-lived plastic products;
 - (n) Single-use plastic products.

C. Scope

Comment: The determination of whether and how to define the scope of the instrument depends on the problem the instrument is aimed at addressing. As noted in paragraph 10 of document UNEP/PP/INC.1/5, on potential elements, there are various approaches to defining scope, including (a) defining the products or substances to which the instrument applies (and to which it does not), similarly to article 3 of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; (b) defining the jurisdictional scope of application, similarly to article 4 of the Convention on Biological Diversity; (c) defining the uses of resources to which the instrument applies, similarly to article 1 of the Convention on the Law of the Non-navigational Uses of International Watercourses; and (d) setting out a type or level of activity that will be controlled under the instrument, particularly in respect of hazardous activities, similarly to article I of the 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972. These are not mutually exclusive. These and other elements of scope could be explored, alone or in combination, should the committee decide to include provisions on scope in the draft instrument.

4. The committee may wish to consider one, or a combination, of the following scope-related aspects for inclusion in the instrument:

(a) The legally binding instrument is expected to cover the whole life cycle of plastics, from extraction to their production and design to their use, consumption and disposal, and address all sources of plastic pollution, covering materials, products, chemicals, additives and microplastics, recognizing the risk of plastic pollution to human health.

(b) The legally binding instrument is to cover plastic pollution, including in the marine environment, with plastic pollution understood to include microplastics, without being duplicative of other multilateral efforts.

(c) The instrument is a legally binding instrument that allows evolution and strengthening overtime.

D. Principles²

Comment: The guiding principles set out in multilateral environmental agreements assist in their implementation and interpretation. Such principles may relate to principles of international law, principles of interpretation, or other conceptual contexts relevant to the agreement's subject matter. While they provide concepts for interpretation of operational paragraphs, they can be set out in a separate section or referred to in the preamble. The following list is not an exhaustive list of principles, and no attempt has been made to define the principles listed. Furthermore, their placement in this section is not intended to prejudge the committee's decision regarding their inclusion or placement within the draft instrument.

5. The committee may wish to consider including some or all of the following principles:

(a) Precautionary principle;

(b) Rio Principles;

(c) The principle of equity, and the specific needs and special circumstances of developing and least developed countries, including small island developing States;

(d) Cooperative and facilitative approach;

(e) Polluter pays principle;

(f) Extended producer responsibility (EPR);

(g) Waste hierarchy;

(h) Human rights, including the human right to a clean, healthy and sustainable environment;

(i) Avoidance of adverse consequences to the climate, biodiversity and food security;

(j) Transparency and reliance on best available science;

(k) Social rights, particularly of the informal sector workers;

(l) Intergenerational responsibility;

(m) Gender equality and diversified perspectives, recognizing that marginalized and vulnerable communities are disproportionately affected by plastic pollution.

² Principles may also be considered under the preamble and could be considered once substantive provisions of the instrument have been further developed.

II. Institutional arrangements

A. Governing body

Comment: Multilateral environmental agreements generally contain a provision or set of provisions establishing a main decision-making authority under the instrument. For conventions, this is usually a conference of the parties, while protocols usually have a meeting of the parties. The relevant provisions may contain stipulations on who may attend and participate in sessions or meetings of the body, the role of observers in those sessions or meetings and the authority of the body to draft rules of procedure. Often, there will be a provision spelling out the general authority of the body, as well as a provision on residual authority, namely the authority to take decisions on action required to meet the objective or objectives of the agreement.

6. The committee may wish to consider including some or all of the following potential options **for the functions of a governing body** of the instrument:

- (a) Take decisions on convening of ordinary and extraordinary meetings of the governing body;
- (b) Review and evaluate implementation of the instrument;
- (c) Establish subsidiary bodies as it considers necessary for the implementation of the instrument and oversight of their work;
- (d) Cooperate, where appropriate, with competent international organizations and intergovernmental and non-governmental bodies;
- (e) Review information made available to it, such as through national reporting and subsidiary bodies;
- (f) Consider any matters related to compliance.

B. Subsidiary bodies

Comment: Some multilateral environmental agreements establish or mandate the establishment of specific permanent subsidiary bodies.³ The instrument may provide for the establishment of specific subsidiary bodies or may defer such establishment to a decision of the governing body. Generally, many of the essential features of such bodies, including their purpose and functions, composition and decision-making process, are included in the instrument. Even if such bodies are not established, agreements will usually confer on the governing body the authority to establish them as it deems appropriate.⁴ In some cases, a separate delegation of decision-making authority is made to bodies that report to the conference or meeting of the parties and that have the authority to make recommendations to that body on subjects within their mandates. Mandates often relate to technical, scientific or implementation issues. The instrument may also include provisions related to rules of procedure that must be followed by subsidiary bodies, including whether the rules of procedure of the governing body apply mutatis mutandis to any subsidiary bodies.

7. The committee may wish to consider including one or both of the following potential options for the establishment of subsidiary bodies:

- (a) **A general mandate for the governing body to establish subsidiary bodies** to assist it on matters of implementation and governance of the instrument;
- (b) **An article of the instrument establishing one or more subsidiary bodies to support the implementation of the instrument;** in such case, the general parameters of their mandates would be defined in the instrument and the authority to oversee their work would rest with the governing body.

³ For example, the United Nations Framework Convention on Climate Change provides for the Subsidiary Body for Scientific and Technological Advice in article 9 and the Subsidiary Body for Implementation in article 10, while the Stockholm Convention provides for the Persistent Organic Pollutants Review Committee in article 19.

⁴ For example, the Minamata Convention on Mercury, art. 23 (5) (a).

C. Scientific and technical cooperation and coordination

Comment: Environment Assembly resolution 5/14 refers to the development of provisions to provide scientific and socioeconomic assessments related to plastic pollution and to promote research into and development of sustainable, affordable, innovative and cost-efficient approaches.⁵ In the resolution, the Environment Assembly also decided that intergovernmental negotiating committee, in its deliberations on the instrument, was to consider the possibility of a mechanism to provide policy-relevant scientific and socioeconomic information and assessment related to plastic pollution.⁶

In their submissions, Member States put forward options ranging from establishing a scientific subsidiary body akin to that under the Stockholm Convention on Persistent Organic Pollutants or the Montreal Protocol or providing for the governing body to establish ad-hoc scientific, technical and economic panels to address specific mandates, to making use of existing and future multilateral scientific platforms such as the science-policy panel to be established pursuant to Environment Assembly resolution 5/8 or the Strategic Approach to International Chemicals Management (SAICM). The latter option would likely require steps to be taken to enable the bodies establishing such platforms to mandate their work in relation to the instrument, under the guidance of the governing body. A number of Member States, in their submissions, also indicated that linkages with relevant processes under other multilateral environmental agreements in the area of science and technology were important.

8. The committee may wish to consider including some or all of the following potential options, noting that they are not necessarily mutually exclusive:

(a) Establishment of a mechanism in a form of a **subsidiary body** to provide policy-relevant scientific, technical and socioeconomic information and assessment related to plastic pollution to inform the implementation of the instrument;

(b) Referral, by the governing body, of certain matters for consideration by and advice from existing platforms and arrangements, such as the **science-policy panel to be established pursuant to Environment Assembly resolution 5/8**, and identification of its relationship to the instrument;

(c) Convening, by the governing body, of **scientific, technical and economic panels of experts** to provide guidance on NAPs, produce reports and assessments of progress, provide recommendations on any revisions that might be needed to increase ambition and make recommendations;

(d) Establishment, by the governing body, of **an evidence and technical body** and a decision by the governing body on interaction of the evidence and technical body with the science-policy panel to be established pursuant to Environment Assembly resolution 5/8.

D. Secretariat

Comment: Environment Assembly resolution 5/14 invites the committee to consider, in its deliberations, efficient organization and streamlined secretariat arrangements.⁷ Multilateral environmental agreements generally contain a provision establishing a secretariat. If this is not done in the instrument itself, such agreements generally provide that the governing body will designate the entity to administer the secretariat functions at its first meeting. The agreement will usually list the functions of the secretariat, with some of the most common being arranging and providing logistical support for meetings of the governing body and its subsidiary bodies, gathering and preparing background information on issues related to the development and implementation of the instrument, and assisting parties in the exchange of information related to implementing the agreement.

⁵ Environment Assembly resolution 5/14, paras. 3 (i) and (o).

⁶ Ibid., para. 4 (f).

⁷ Ibid., para. 4 (g).

9. The committee may wish to consider including a provision establishing the secretariat of the instrument with some or all of the following functions:
- (a) Make arrangements for sessions of the governing body, subsidiary bodies, if any, and the multistakeholder action agenda, if any, and provide related services as required;
 - (b) Coordinate with the secretariats of other relevant international bodies and instruments, as appropriate;
 - (c) Assist parties in the exchange of information related to the implementation of the instrument as required;
 - (d) Prepare and make available to the parties periodic reports based on national reporting and other sources of information, as appropriate;
 - (e) Enter, under the overall guidance of the governing body, into administrative and contractual arrangements that may be required for the secretariat to perform its functions;
 - (f) Perform any secretariat functions specified in the instrument and any other functions as may be determined by the governing body.

Appendix II

Background

1. The adoption of resolution 5/14 by the United Nations Environment Assembly in March 2022 represented a significant step towards addressing plastic pollution. In the resolution, the Environment Assembly notes with concern that plastic pollution is a serious environmental problem at a global scale that is negatively impacting the environmental, social and economic dimensions of sustainable development and affirms the urgent need to strengthen global coordination, cooperation and governance to take immediate action towards its long-term elimination.
2. The resolution¹ further specifies, in paragraph 3, that the intergovernmental negotiating committee is to develop an international legally binding instrument on plastic pollution, including in the marine environment, which could include both binding and voluntary approaches, based on a comprehensive approach that addresses the full life cycle of plastic, taking into account, among other things, the principles of the Rio Declaration on Environment and Development, as well as national circumstances and capabilities. Paragraph 3 of the resolution also sets out a list of provisions to be included in the instrument, and paragraph 4 outlines a list of aspects to be considered by the intergovernmental negotiating committee in its deliberations.
3. While plastic has brought many benefits to society, undoubtedly making life safer and more convenient for many industrial sectors and in different aspects of life – for example, in the medical, food and transport sectors – it has also brought with it environmental and public health challenges. Urgent action to tackle leakage into the environment is needed across the plastic life cycle from all of society, including national governments, cities, civil society, consumers and businesses across the value chain, including the informal sector, to tackle this growing problem.
4. As per paragraph 4 of Environment Assembly resolution 5/14, the intergovernmental negotiating committee is to consider the best available science, traditional knowledge, knowledge of Indigenous Peoples and local knowledge systems in its deliberations. To support such considerations, the following box highlights key figures for plastic pollution, drawn from recent sources.

Key figures for plastic pollution

- Plastic pollution is at the forefront of the triple planetary crisis of climate change, biodiversity loss and pollution, and the problem continues to grow. Global plastic production and consumption have grown exponentially since the 1950s and is set to triple by 2060 if business continues as usual.² Annual global production of plastics doubled from 234 million metric tons in 2000 to 460 million metric tons in 2019. It is forecast to triple under a business-as-usual scenario to an estimated 1,231 million metric tons in 2060. Global plastic materials production in 2020 was dominated by the following regions: Asia (49 per cent), North America (19 per cent) and Europe (15 per cent).
- Short-lived plastic products made up 66 per cent of plastics use in 2019. Short-lived plastic products include packaging made from low-density polyethylene (e.g., bags, containers, food packaging film), containers made from high-density polyethylene (e.g., bottles, shampoo bottles, ice cream tubs) and polyethylene terephthalate (e.g., bottles for fluids).
- Macroplastics accounted for 88 per cent of global plastic leakage to the environment in 2019, around 19.4 million metric tons. This figure is projected to increase to 38.4 million metric tons in 2060.
- Fishing gear is particularly problematic. It has been estimated that fishing activities and other marine activities contribute around 0.3 million metric tons to global macroplastic leakage. Global fishing gear losses each year may include 5.7 per cent of all fishing nets, 8.6 per cent of all traps and 29 per cent of all lines.
- Agricultural plastics also deserve special attention for their use close to sensitive ecosystems. An estimated 12.5 million metric tons of plastic products are used annually in plant and animal production.
- Microplastic leakage is projected to more than double globally, from 2.7 million metric tons in 2019 to 5.8 million metric tons in 2060. Interventions to address microplastics are generally less advanced, as this form of leakage has not received the same level of scrutiny as macroplastics. Microplastic leakage occurs along the life cycle of products.

¹ For ease of reference, appendix III to the present document provides the text of Environment Assembly resolution 5/14, paras. 3 and 4.

² OECD, *Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options* (Paris, OECD Publishing, 2022).

- Plastics account for at least 85 per cent of total marine waste.³ Plastic leakage to oceans was estimated at 11 million metric tons, with terrestrial leakage estimated at 31 million metric tons and open burning at 49 million metric tons in 2016.⁴ Annual plastic pollution flows are forecast to grow 2.5 times by 2040. An estimated 23 to 37 million metric tons per year of plastic waste could enter the oceans by 2040 in a business-as-usual scenario.⁵
- Globally, 46 per cent of plastic waste is landfilled, 22 per cent is mismanaged and becomes litter, 17 per cent is incinerated and 15 per cent is collected for recycling, with less than 9 per cent actually recycled after losses.⁶ Global recycling rates are forecast to remain low over the coming decades, increasing from less than 9 per cent in 2019 (29 million metric tons) to 17 per cent in 2060 (176 million metric tons).⁷
- The packaging sector is the largest generator of plastic waste (46 per cent), followed by the textile (15 per cent), consumer products (12 per cent), transportation (6 per cent), building and construction (4 per cent) and electrical (4 per cent) sectors. Some 40 per cent of all plastic packaging waste ended up in landfills, 32 per cent was lost into the environment, 14 per cent was incinerated, and 10 per cent was recycled (8 per cent into lower-value applications and 2 per cent into similar applications); an additional 4 per cent was sent to recycling but was lost in the process.⁸
- The impact of plastic pollution is increasingly evident. Plastic pollution is altering habitats and natural processes, reducing ecosystems' ability to adapt to climate change and directly affecting millions of people's livelihoods, food production capabilities and social well-being. Plastic pollution has a disproportionate impact on the most vulnerable populations and affects women more than men.⁹ The presence of plastic could dramatically shift the ecology of marine and terrestrial ecosystems. An altered environment and shifts in biodiversity have potentially wide-reaching and unpredictable secondary societal consequences and may impair ecosystem resilience. Plastic is ingested by wildlife. A new study of microplastics in wild-caught fish revealed evidence of plastics in the intestinal tract of 65 per cent of the 496 species examined. A new disease caused solely by plastics has been discovered in seabirds. The birds identified as having the disease, named plasticosis, have scarred digestive tracts from ingesting waste.¹⁰
- Throughout its life cycle, plastic contributes to climate change. In 2019, plastics generated 1.8 billion metric tons of greenhouse gas emissions – 3.4 per cent of global emissions – with 90 per cent of those emissions coming from plastics production and conversion from fossil fuels.¹¹
- Plastic pollution can pose risks to human health. At every stage of its life cycle, plastic can pose risks to human health, arising from exposure to the chemicals used in production, the plastic particles themselves and additives.¹² Plastic particles can enter the human body through ingestion and inhalation, while nanoparticles may also enter through the skin.¹³ There are concerns that plastics, in particular microplastics, can host microbial pathogens.¹⁴
- It is estimated that in 2015 the health-related costs of plastic production exceeded \$250 billion (2015 Int\$) globally, and that in the United States of America alone the health costs of disease and disability caused by the plastic-associated chemicals PBDE, BPA and DEHP exceeded \$920 billion (2015 Int\$).¹⁵
- Microplastics can move through the food web, as well as through the air, soil, ice, snow and water – including groundwater. There is also an indication that sea ice functions as a temporary sink, secondary source and transport medium for microplastics.¹⁶
- In terrestrial environments, the presence of microplastics in soil has been reported and may in fact be an underestimated and equally important sink that could influence human health and economy, given that agriculture and land use could be significantly impacted by the contamination. The occurrence of microplastics in agricultural produce such as fruits and vegetables has been reported. Several recent studies have also reported the occurrence of microplastics in foods of animal origin. The contamination could be related to the use of contaminated feed – fishmeal, for instance, which is made of raw fish, has been repeatedly reported as being contaminated with synthetic particles retained within the gastrointestinal tract.
- Because of the essentially linear nature of the plastics system (take-make-waste), 95 per cent of aggregate plastic packaging value – \$80 billion to \$120 billion a year – is lost to the economy following a short first-use cycle.¹⁷
- A 1 per cent decline in annual marine ecosystem services could equate to an annual loss of \$500 billion in global ecosystem benefits.¹⁸
- The International Labour Organization has estimated that in advancing towards a sustainable economy, almost 6 million jobs can be created by moving away from an extract-manufacture-use-discard model and embracing the recycling, reuse, remanufacture, rental and longer durability of goods.¹⁹
- A comprehensive approach can be delivered through a combination of measures including: (i) reducing the size of the problem by eliminating and substituting problematic and unnecessary plastic materials and items, including hazardous additives; (ii) ensuring that plastic products are designed to be circular (reusable as a first priority, and recyclable or compostable after multiple uses at the end of their useful life); (iii) closing the loop of plastics in the economy by ensuring that plastic products are circulated in practice (reused, recycled or composted); and (iv) managing plastics that cannot be reused or recycled (including existing pollution) in an environmentally responsible manner. It has been estimated that these actions, applied concurrently, could reduce the volume of plastics entering the oceans by over 80 per cent

by 2040; reduce virgin plastic production used in short-lived plastic products by 55 per cent; save governments \$70 billion over the period 2021–2040; and reduce greenhouse gas emissions by 25 per cent.²⁰

5. A life cycle approach to plastic considers the impact of all the activities and outcomes associated with the production and consumption of plastic materials, products and related services – from raw material extraction and processing (refining, processing, cracking, polymerization) to design, manufacturing, packaging, distribution, use (and reuse), maintenance and end of life management, including segregation, collection, sorting, recycling and disposal. Transportation and trade of plastic products also occur at each stage of the life cycle.²¹

6. The following figure illustrates the life cycle of plastic.²² Plastic pollution can happen at any stage, although the end-of-life and use stages are where the biggest share originates. Solutions across the life cycle will need to consider an integrated combination of policy, regulatory, economic, business, technological and behavioural instruments, as well as the use of trade policies with instruments established at the global, regional and national levels.

³ UNEP/PP/INC.1/7, on plastics science.

⁴ Pew Charitable Trusts and SYSTEMIQ, *Breaking the Plastic Wave: A Comprehensive Assessment of Pathways towards Stopping Ocean Plastic Pollution: Summary Report* (2020).

⁵ Ibid.

⁶ Globally, almost 40 per cent of plastics collected for recycling, or close to 22 million metric tons, are lost during recycling and end up being incinerated, landfilled or mismanaged. OECD, *Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options* (Paris, OECD Publishing, 2022).

⁷ Ibid.

⁸ UNEP, *Drowning in Plastics: Marine Litter and Plastic Waste Vital Graphics* (Nairobi, 2021).

⁹ UNEP/PP/INC.1/7, on plastics science.

¹⁰ Hayley S. Charlton-Howard, Alexander L. Bond, Jack Rivers-Auty and Jennifer L. Lavers, “‘Plasticosis’: Characterising macro- and microplastic-associated fibrosis in seabird tissues”, *Journal of Hazardous Materials*, vol. 450 (15 May 2023).

¹¹ Ibid.

¹² Centre for International Environmental Law, *Plastic and Health: The Hidden Costs of a Plastic Planet* (2019).

¹³ Andre Vethaak and Juliette Legler, “Microplastics and human health: knowledge gaps should be addressed to ascertain the health risks of microplastics”, *Science*, vol. 371, no. 6530 (Feb. 2021), pp. 672–674.

¹⁴ Valentin Foulon and others, “Colonization of polystyrene microparticles by *Vibrio crassostreae*: light and electron microscopic investigation”, *Environmental Science and Technology*, vol. 50, no. 20 (Oct. 2016), pp. 10988–10996.

¹⁵ P. J. Landrigan, H. Raps, M. Cropper, C. Bald, M. Brunner, E. M. Canonizado, D. Charles, T. C. Chiles, M. J. Donohue, J. Enck, P. Fenichel, L. E. Fleming, C. Ferrier-Pages, R. Fordham, A. Gozt, C. Griffin, M. E. Hahn, B. Haryanto, R. Hixson, H. Ianelli, B. D. James, P. Kumar, A. Laborde, K. L. Law, K. Martin, J. Mu, Y. Mulders, A. Mustapha, J. Niu, S. Pahl, Y. Park, M.-L. Pedrotti, J. A. Pitt, M. Ruchirawat, B. J. Seewoo, M. Spring, J. J. Stegeman, W. Suk, C. Symeonides, H. Takada, R. C. Thompson, A. Vicini, Z. Wang, E. Whitman, D. Wirth, M. Wolff, A. K. Yousuf and S. Dunlop, “The Minderoo-Monaco Commission on Plastics and Human Health”, *Annals of Global Health* vol. 89, no. 1 (21 March 2023) (available at <https://annalsofglobalhealth.org/articles/10.5334/aogh.4056/>).

¹⁶ Melanie Bergmann and others, “Vast Quantities of Microplastics in Arctic Sea Ice – A Prime Temporary Sink for Plastic Litter and a Medium of Transport”, in Juan Baztan and others, *Fate and Impact of Microplastics in Marine Ecosystems* (Elsevier Inc., 2017).

¹⁷ Pew Charitable Trusts and SYSTEMIQ, *Breaking the Plastic Wave: A Comprehensive Assessment of Pathways towards Stopping Ocean Plastic Pollution: Summary Report* (2020).

¹⁸ Nicola J. Beaumont and others, “Global ecological, social and economic impacts of marine plastic”, *Marine Pollution Bulletin*, vol. 142 (May 2019), pp. 189–195.

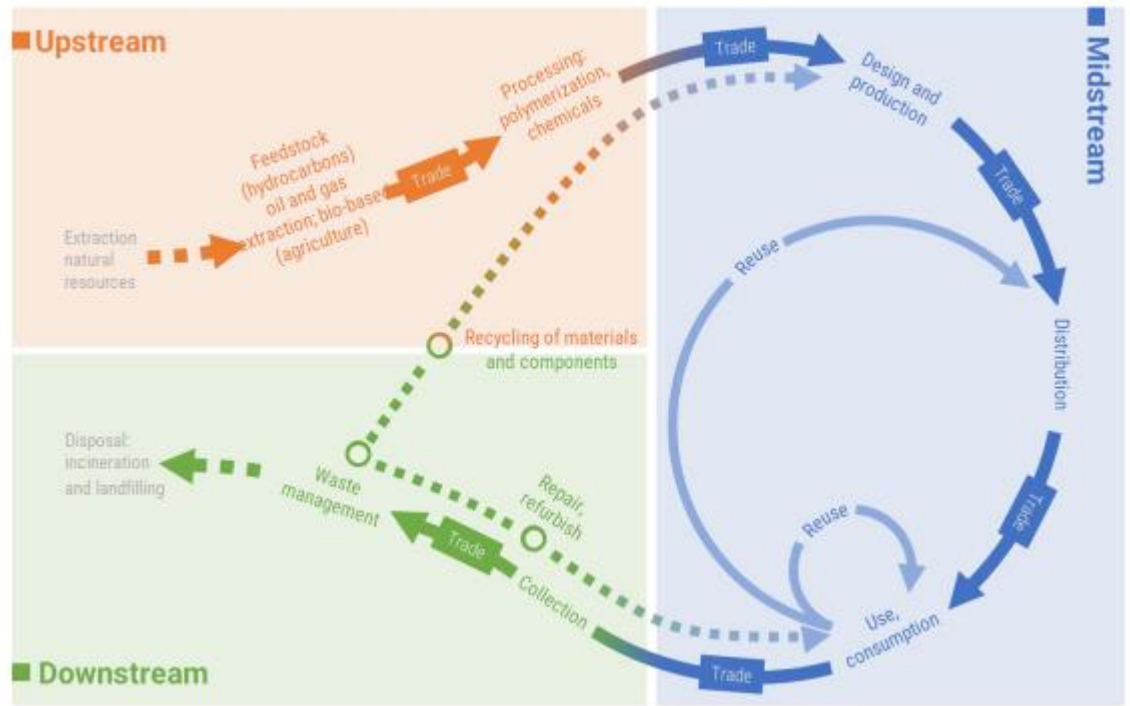
¹⁹ International Labour Organization, *World Employment Social Outlook – Trends 2018*.

²⁰ Pew Charitable Trusts and SYSTEMIQ, *Breaking the Plastic Wave: A Comprehensive Assessment of Pathways towards Stopping Ocean Plastic Pollution: Summary Report* (2020).

²¹ UNEP/PP/INC.1/7, on plastics science.

²² Ibid.

Illustration of the life cycle of plastic



Appendix III

Paragraphs 3 and 4 of United Nations Environment Assembly resolution 5/14

Paragraph 3: *Decides* that the intergovernmental negotiating committee is to develop an international legally binding instrument on plastic pollution, including in the marine environment, henceforth referred to as “the instrument”, which could include both binding and voluntary approaches, based on a comprehensive approach that addresses the full life cycle of plastic, taking into account, among other things, the principles of the Rio Declaration on Environment and Development, as well as national circumstances and capabilities, and including provisions:

- (a) To specify the objectives of the instrument;
- (b) To promote sustainable production and consumption of plastics through, among other things, product design and environmentally sound waste management, including through resource efficiency and circular economy approaches;
- (c) To promote national and international cooperative measures to reduce plastic pollution in the marine environment, including existing plastic pollution;
- (d) To develop, implement and update national action plans reflecting country-driven approaches to contribute to the objectives of the instrument;
- (e) To promote national action plans to work towards the prevention, reduction and elimination of plastic pollution, and to support regional and international cooperation;
- (f) To specify national reporting, as appropriate;
- (g) To periodically assess the progress of implementation of the instrument;
- (h) To periodically assess the effectiveness of the instrument in achieving its objectives;
- (i) To provide scientific and socioeconomic assessments related to plastic pollution;
- (j) To increase knowledge through awareness-raising, education and the exchange of information;
- (k) To promote cooperation and coordination with relevant regional and international conventions, instruments and organizations, while recognizing their respective mandates, avoiding duplication and promoting complementarity of action;
- (l) To encourage action by all stakeholders, including the private sector, and to promote cooperation at the local, national, regional and global levels;
- (m) To initiate a multi-stakeholder action agenda;
- (n) To specify arrangements for capacity-building and technical assistance, technology transfer on mutually agreed terms, and financial assistance, recognizing that the effective implementation of some legal obligations under the instrument will depend on the availability of capacity-building and adequate financial and technical assistance;
- (o) To promote research into and development of sustainable, affordable, innovative and cost-efficient approaches;
- (p) To address compliance;

Paragraph 4: *Also decides* that the intergovernmental negotiating committee, in its deliberations on the instrument, is to consider the following:

- (a) Obligations, measures and voluntary approaches in supporting the achievement of the objectives of the instrument;
- (b) The need for a financial mechanism to support the implementation of the instrument, including the option of a dedicated multilateral fund;
- (c) Flexibility that some provisions could allow countries discretion in the implementation of their commitments, taking into account their national circumstances;
- (d) The best available science, traditional knowledge, knowledge of indigenous peoples and local knowledge systems;

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- (e) Lessons learned and best practices, including those from informal and cooperative settings;
 - (f) The possibility of a mechanism to provide policy-relevant scientific and socioeconomic information and assessment related to plastic pollution;
 - (g) Efficient organization and streamlined secretariat arrangements;
 - (h) Any other aspects that the intergovernmental negotiating committee may consider relevant.
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