Call for written submissions – Proposed response template on the potential options for elements towards an international legally binding instrument

On 9 December 2022, the Executive Secretary of the INC Plastic Pollution Secretariat sent a notification inviting written submissions from members of the committee and from observers. The template below is intended to provide guidance to members of the committee and observers in structuring the written submissions.

As requested by INC-1, written submissions will inform the secretariat in the preparation of a document with potential options for elements towards an international legally binding instrument, for consideration at the second session of the INC, without in any way prejudging what the committee might decide regarding the structure and provisions of the instrument. The document is to be based on a comprehensive approach that addresses the full life cycle of plastics as called for by UNEA resolution 5/14, including identifying the objective, substantive provisions including core obligations, control measures, and voluntary approaches, implementation measures, and means of implementation.

The template below is meant to assist Members and Observers to prepare their written submission as a guide. A number of documents prepared for INC-1 are of relevance, notably UNEP/PP/INC.1/5 on ‘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’.

The template is divided into three sections:

I. Substantive elements
II. Implementation elements
III. Additional input

All written submissions must be sent to unep-incplastic.secretariat@un.org. The statements received will be compiled and made available the INC webpage.

Please note that it is not required for all fields to be answered in the template for submission.

Deadline for submissions:

• 6 January 2023 for written submissions from observers.
• 10 February 2023 for written submissions from Members of the Committee.
I. Substantive elements

1. Objective(s)

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

The proposed objectives focus on items related to activities within the “Nuclear Technologies as a solution for Plastics Pollution” (NUTEC Plastics), remit of the International Atomic Energy Agency (cf. III. Additional Input below).

Proposed Objectives:
1) Base decisions on science and consider ways to consider future scientific knowledge gained
2) Build capacity in Member States not only in reusing/recycling plastics but also in monitoring and assessing plastic pollution, including micro- and nano plastics in the marine environment
3) Establish a financial mechanism to ensure access to resources for data collection, science and technology development
4) Reduce the micro- and nano-plastics pollution in the marine environment
5) Reduce the amount of plastic waste generated through establishment of a plastic circular economy.
6) Enlarge the current upstream/midstream/downstream approach to consider monitoring plastic pollution in the marine environment (as per Instrument proposed title)
7) Increase the market-share of bio-based, biodegradable polymer products.
8) Ensure synergies with other UN instrument addressing plastic pollution

Explanatory Text:
1) There are still gaps in scientific knowledge, in particular on the impact of micro-and nano-plastics on marine ecosystems and seafood resources. The targets and measures set by the instrument should be based on peer review information, harmonized analytical methods, and addressed in the instrument in a way that allows revision to incorporate future new scientific knowledge.

2) Implementing a legally binding instrument to end plastic pollution, including in the marine environment, requires accompanying measures to ensure that all MSs have the technologies and the
capacity to reach targets set both at the plastic life cycle and the marine monitoring levels. The IAEA has a Department of Technical Cooperation that, together with its technical departments, implements national and regional projects in Member States, entailing knowledge-sharing, capacity building and technology transfer.

3) To address knowledge gaps and ensure availability of resources for data collection, monitoring and evaluation as well as for science and technology development, a dedicated fund should be established with an aim to support LMICs participation in science-based mechanisms and decision-making, as well as to support pre-market investments in technology demonstration, feasibility and scaling.

4) The impact of plastic particles increases with particle size reduction. Ending with plastic pollution in the marine environment requires controlling marine litters but should also address monitoring of smallest plastic particles.

5) Maximizing the amount of plastic waste that is reused (directly or as secondary products) or recycled in advanced (chemical processes) will decrease the amount of plastic waste going to landfills. Legacy wastes can also be treated to avoid their ultimately ending up in our ocean. The IAEA supports Member States in developing radiation processing methods for creating tailored plastic secondary products from plastic waste, often combining another waste stream to generate composite material, and is working with a number of stakeholders to enable radiation assisted advanced plastic recycling, which can optimize the economy of the process by lowering temperatures and increasing yields of fuel and chemical feedstock generated, thus facilitating establishing a plastic circular economy.

6) The current approach for the new instrument considers only the life cycle of plastics, through an upstream/midstream/downstream approach. However, the instrument aims also at ending plastic pollution in the marine environment. To this end, the effectiveness of implementation of a legally binding instrument and its impact in reducing marine plastic pollution should be assessed at the national level. The IAEA, through its NUTEC Plastics initiative is developing a global network of marine laboratories for monitoring microplastics in the oceans with harmonized nuclear/isotopic techniques, which has the potential to contribute supporting the monitoring of microplastics pollution reduction.

7) Increasing the market-share of bio-based, biodegradable polymer products would decrease the amount of long-lived plastic waste generated thus help maximize plastic waste avoidance. The IAEA supports Member States in development of biodegradable polymers from sustainable bio-based feedstocks for an array of applications and in generating those feedstocks using radiation technology. Radiation is a mature, green technology limiting the use of catalysts and solvents, and already used in the petroleum-based polymer industry.

8) Synergies with other UN instruments addressing plastic pollution should be included to avoid duplicating efforts, i.e., the IAEA work to reduce plastic pollution and assess its impacts on the marine environment, through NUTEC Plastics and the work of its laboratories in Monaco and Vienna, should be considered.
2. Core obligations, control measures and voluntary approaches

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

1) The control/monitoring of the impacts of measures taken under this instrument to reduce plastic pollution in the marine environment could be a voluntary approach from Riparian States and could be based on a network of marine laboratories using harmonized protocols to generate comparable monitoring data (Under its NUTEC Plastics initiative, and with the support of its Member States, the IAEA is developing such a network and is facilitating the harmonization of protocols for marine microplastics monitoring).

2) National programmes should define the market-share of bio-based, biodegradable polymer products of their country’s polymer economy, based on recommendations of the INC.

3) National programmes should set targets for the amount of plastic waste reused and recycled in a staged approach to ultimately target nominal zero plastic waste generation.

II. Implementation elements

1. Implementation measures

a) How to ensure implementation of the instrument at the national level (eg. role national action plans contribute to meeting the objectives and obligations of the instrument?)

b) How to ensure effectiveness of the instrument and have efficient national reporting?

c) Please provide any other relevant proposals or priorities here on implementation measures (for example for scientific and technical cooperation and coordination as well as compliance).

Coordination among UN Agencies will be a critical step. A platform for the sharing of knowledge and information (data) could be considered.

The IAEA Technical Cooperation (TC) programme supports its Member States through the various stakeholders from specialized organizations, academe, private sector and the non-governmental organizations to collaborate on a common target where transfer of mature nuclear science and technology brings added value. In addressing the environmental issues posed by plastic pollution, the national, regional or interregional projects of the TC programme support capacity building through expert services, training through courses, fellowships and scientific visits as well as enhancement of relevant facilities to demonstrate by 2025 through a pilot plant the use of irradiation technology for plastic recycling; as well as for the establishment by 2026 of the Global Marine Plastic Monitoring Network composed of 50 laboratories worldwide. South-South cooperation, Triangular Cooperation and Technical Cooperation amongst Developing Countries are amongst the best practices that facilitate effective and efficient capacity building in the countries. To date 62 countries are being supported by the TC programme through 19 national and regional projects across all regions. The
IAEA participates in relevant intergovernmental fora where the efforts and progress of the NUTEC Plastics initiatives are shared for synergies and partnerships, including in ESCAP, ASEAN, Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO) Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), ADB, UNEP, GPAP, G20 amongst others.

2. Means of Implementation

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

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

A dedicated fund for R&D, capacity building and technology transfer should be established to support addressing knowledge gaps on marine plastics pollution impacts and data-sharing platforms as well as for innovation, demonstration, and commercialization of technologies to reduce usage and recycle plastics.

III. Additional input

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

To further inform policy on the impact of plastic pollution in the marine ecosystems and seafood resources and to allow harmonized monitoring by Member States, R&D is needed. Through the only UN marine environment laboratories, the IAEA is addressing scientific knowledge gaps and is working with Member States on harmonization of protocols for marine microplastics monitoring.

To maximize plastic waste avoidance, R&D is needed to develop a larger palette of biodegradable alternatives to petroleum-based polymers. R&D is also needed to minimize plastic waste generation and to establish a circular economy, including reuse, repurposing and advanced recycling. The International Atomic Agency (IAEA) is working with Member States in both these targets using radiation. Radiation processing can be used to tailor properties of polymers to their applications, this includes bio-based polymer products and secondary products generated from plastic waste. Radiation can also improve advanced plastic waste recycling by lowering temperatures required in pyrolysis reactors used in the process and increasing generated fuel and feedstock output. The long-term impact of using polymer wastes as fillers and binders in building and road construction should be analysed, meaning the fate of those polymers in the construction material post-lifetime should be assessed.
To further inform policy on the impact of plastic pollution in the marine ecosystems and seafood resources and to allow harmonized monitoring by Member States, R&D is needed. Through the only UN marine environment laboratories, the IAEA is addressing scientific knowledge gaps and is working with Member States on harmonization of protocols for marine microplastics monitoring.

For additional information, please see https://www.iaea.org/services/key-programmes/nutec-plastics