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**Ad hoc open-ended expert group
on marine litter and microplastics**

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Item 6 (d) of the provisional agenda¹

Introduction to activities under the mandate of the ad hoc open-ended expert group: Methodology for assessment of effectiveness

Approach for the development of a methodology to analyse the effectiveness of existing and potential response options and activities on marine litter and microplastics at all levels to determine the contribution in solving the global problem ²

Note by the Secretariat

1. The Ad Hoc Open-Ended Expert Group (AHEG) was established through the United Nations Environment Assembly resolution UNEP/EA.3/Res.7 paragraph 10. Its mandate was extended through resolution UNEP/EA.4/Res.6 paragraph 7, which also requested the group to, amongst other things, through subparagraph 7(d):

“Analyse the effectiveness of existing and potential response options and activities with regard to marine litter and microplastics at all levels to determine the contribution that they make to solving the global problem”

2. This document is an elaboration of UNEP/AHEG/2019/3/5 that aims to provide a proposed methodology for the preparation of an analysis of the effectiveness of existing and potential response options under subparagraph 7(d). Upon consideration of the methodology by the AHEG, it is expected to be revised and to better guide the development of the study in response to the request set out in subparagraph 7(d).

¹ UNEP/AHEG/2019/3/1

² In delivery of UNEP/EA.4/Res.6, subparagraph 7(d)

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1. INTRODUCTION

The methodology proposed herein intends to deliver on the request under UNEP/EA.4/Res.6 subparagraph 7(d), which states:

“Analyse the effectiveness of existing and potential response options and activities on marine litter and microplastics at all levels to determine the contribution in solving the global problem.”

The assessment presented in UNEP/AHEG/2018/1/INF/3 and titled *“Combating marine plastic litter and microplastics: an assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches”* conducted an analysis of the relevant international, regional and sub-regional regulatory frameworks for combatting marine plastic litter and microplastics. The present assessment will therefore seek to provide a different approach. Most notably, “contribution to solving the global problem” has been translated to “comprehensiveness of response options in addressing various criteria across the life cycle of marine litter and microplastics”.

The proposed focus on the life cycle is supported by UNEP/EA.4/Res.6, which states “Sustainable management of plastics throughout their life cycle is important in order to increase sustainable consumption and production patterns, including circular economy and other sustainable economic models, resource efficiency, the “three Rs, sustainable materials management.” In addition, the resolution called for governments and the private sector to “promote the more resource-efficient design and sound management of plastics across their life cycle.” The approach is intended to provide a more holistic view of the potential for current and proposed efforts to contribute to solving the global problem from source reduction through to final disposal.

Based on the life cycle of plastics, the following phases will provide a basis for assessment of the comprehensiveness of a response option or activity in addressing the life cycle of plastics:

1. Production (includes raw materials and eco design)
2. Consumption
3. Waste management

Each lifecycle phase is further deconstructed into various criteria, forming the basis of the methodology for assessing the effectiveness of existing and potential response options and activities.

The proposed methodology is further expanded to assess coverage of some of the gaps identified in the UNEA-3 assessment (UNEP/AHEG/2018/1/INF/3). The methodology will include considerations of 1) the environmental zones addressed (air, land, freshwater and sea), 2) geographic range (source-to-sea components, including river basin management and areas beyond national jurisdiction), and 3) whether compliance is included in the form of reporting across the three main lifecycle phases. The requirement for reporting implies a level of monitoring or review is in place and the present assessment will consider whether reporting also covers the life cycle of plastics, providing a view of the level of reporting on production, consumption and waste management.

2. ASSESSMENT METHODOLOGY FRAMEWORK

2.1. Scope of the assessment

Resolution UNEP.EA.4/Res.6 subparagraph 7(d) specifies *“response options and activities on marine litter and microplastics.”* This would restrict the scope of the analysis to those response options and activities that have been developed specifically to combat the issue of marine litter and microplastics. These will be identified based on their inclusion in online survey responses by governments and the

private sector, as per the stocktaking exercise conducted in response to UNEP/EA.4/Res.6 subparagraph 7(a).

The following four focus areas are proposed across all response options and activities:

- 1) the lifecycle phases of products that may become marine litter and microplastics
- 2) the geographic range
- 3) environmental zones protected
- 4) compliance - reporting (implies some form of monitoring activities is in place).

2.2. Limitations of the methodology

Because of the mandates of many response options and activities, it is not foreseen that many will address the full life cycle of products based on the selected components of each life cycle phase. Thus, the summary illustration for the global comprehensiveness of all response options and activities is unlikely to reflect a rating of ‘Full’ for any response options and activity. However, within the individual rating process, response options and activities will be rated within their mandate where applicable. Where a component or full life cycle phase is not within the mandate of the response options and activities, this will be indicated as n/a.

The assessment does not rate the effectiveness of response options and activities based on whether they are binding or voluntary. The second illustrative table does, however, list the number of binding and voluntary instruments that address the individual components across the four primary areas.

Compliance is often viewed as a measure of effectiveness. The UNEA-3 assessment³ reported on the compliance mechanisms of the international and regional policy frameworks. Therefore, in this assessment, compliance is limited to whether reporting is included within a response option or activity. This implies some form of monitoring and information gathering is in place. The historical level of reporting and the quality thereof will not be assessed.

2.3. Selecting existing and potential response options and activities

The stocktaking exercise undertaken in response to UNEP/EA.4/Res.6 subparagraph 7(a) will conduct an online survey of governments and the private sector to take stock of existing activities and action to reduce marine plastic litter and microplastics. Additional questions will be incorporated for each response, based on the following:

Table 1: Lifecycle phases and criteria

| Lifecycle phase | Criteria to address |
|---|---|
| Production (includes production of recycled products) | 1. Eco design (reduction, waste prevention) |
| | 2. Microplastics (primary, secondary) |
| | 3. Additives & associated chemicals |
| Consumption (across the supply chain) | 4. Reduction |
| | 5. Elimination |
| | 6. Waste prevention |
| Waste management | 7. Environmentally sound treatment of wastes |
| | 8. Mitigation and environmentally sound removal |
| | 9. Economic instruments to support waste management |
| | 10. Disaster debris prevention and management |

³ Presented in UNEP/AHEG/2018/1/INF/3.

See also Table 2: Summary of search criteria for online survey in response to subparagraph 7(a) and Table 3: Life cycle phases and components of each as basis for measuring effectiveness of existing and potential response options and activities.

The following are examples of response options and activities that could be extracted from the online survey responses.

- a) Normative:
 - i. Inter-ministerial committees, inter-governmental and private sector partnerships;
 - ii. Policy instruments specific to waste prevention and management and marine litter specifically;
- b) Evidential:
 - i. Monitoring standards and programmes;
 - ii. Reporting, including standards;
 - iii. Funds committed;
 - iv. Economic incentives and other stakeholder engagement programmes;
- c) Capacity Building:
 - i. Awareness programmes focusing on 1) impact knowledge, 2) desired behaviour change or 3) regulatory frameworks (including for e.g. deposit return schemes)
 - ii. Sectoral guidelines
 - iii. Workshops and conferences
 - iv. Bilateral programmes

The stocktaking exercise will include selections based on Table 3: Lifecycle phases and components of each as basis for measuring effectiveness of existing and potential response options and activities.

The dataset resulting from the stocktaking exercise will be searched based on the following search terms (to be confirmed with developers of online platform). The intention is to firstly categorise according to column 1 by using a combination of search terms in columns 2 and 3.

Table 2: Summary of search criteria for online survey of subparagraph 7(a)

| Groupings of response options and activities | Groupings identified through search terms | Additional search terms for analysis of lifecycle, environmental zones, geographic range and compliance |
|--|--|---|
| Inter-ministerial committees and inter-governmental partnerships | Committee, partnership | Production, consumption, waste management. Air, land, freshwater, sea. Source-to sea, river basin, areas beyond national jurisdiction. Reporting. Binding, voluntary. Subnational, national, regional, international |

| | | |
|---|--|----------|
| Policy instruments specific to waste prevention and management and marine litter specifically | Policy, regulat*, ban, prohibit, legal, action plan, strategy*, agreement, convention, protocol, annex | As above |
| Monitoring standards and programmes | Monitor* | As above |
| Reporting, including standards | Report* | As above |
| Funds committed | Fund*, financ*, | As above |
| Economic incentives and other stakeholder engagement programmes | EPR, pay-as-you-throw, producer, manufacturer, retailer, consumer | As above |
| Awareness programmes focusing on 1) impact knowledge, 2) desired behaviour change or 3) regulatory frameworks (including for e.g. deposit return schemes) | Awareness, knowledge, campaign, behaviour, education, ban, prohibit, return, deposit, | As above |
| Sectoral guidelines | Guidelines + sector, industry, private sector, commerc* | As above |
| Workshops and conferences | Workshop, conference, symposium, meeting | As above |
| Bilateral programmes | Capacity, assistance, funding, cooperation | As above |
| Other | Standard, program | As above |

Based on the above table, it is assumed that all text fields of the online survey will be searchable. The suggested search terms in the table are preliminary and will require consultation with the designers of the online survey to ensure the relevant response options and activities can be extracted into the suggested groupings and then quantified based on the search terms, e.g. x number of national response options and activities include reporting obligations.

The selection of response options will be further informed by the work undertaken in delivering on subparagraph 7(b) and subparagraph 7(c).

2.4. Rating the groupings of response options and activities

Where appropriate, the online submissions will be grouped and assessed for their comprehensiveness in addressing the criteria across the four focus areas.

Should a criterion not be within the mandate/objective of the response option, it will be reflected here as partial, but acknowledged in the report section for this response option.

The introduction to response option and activity group will include potential problem statements which the response option seeks to or could address, e.g. abandoned fishing gear.

Table 3: Focus area 1: Lifecycle phases and criteria for measuring effectiveness of existing and potential response options and activities.

| Lifecycle phase | Assessment of criteria addressed | Explanatory text to include in chapeau of online survey to assist interpretation by respondents |
|--------------------------------------|---|---|
| Production | 1. Eco design | For durability, reuse, prevention of microplastics through abrasion & end-of-life treatment |
| | 2. Microplastics | Primary, secondary |
| | 3. Additives & associated chemicals | Incl. legacy chemicals. Recycling facilities also addressed in this section. |
| Consumption (across supply chain) | 4. Reduction | E.g. taxes on products |
| | 5. Elimination | E.g. product bans |
| | 6. Waste prevention | Guidelines and policies - household, public venues, commercial, industry sectors, government |
| Waste Management | 7. Environmentally sound treatment of wastes | Waste hierarchy, separation/sorting, collection, storage, disposal, responsible trade |
| | 8. Mitigation and environmentally sound removal | Incl. microplastics (e.g. wastewater, sewage sludge), fishing nets |
| | 9. Economic instruments to support waste management | Principles of ARF, EPR, PP, environment funds, pay-as-you-throw, deposit schemes, etc. Includes collection and transport. |
| | 10. Disaster debris prevention and management | Preparation and response |

The three additional focus areas will be discussed for each response option and activity, namely:

Focus area 2: Environmental zones

Criteria 11: Air

Criteria 12: Land

Criteria 13: Freshwater

Criteria 14: Sea (including areas beyond national jurisdiction)





Focus area 3: Source-to-sea components

Criteria 15: River basin management, areas beyond national jurisdiction

Focus area 4: Compliance

Criteria 16: Reporting procedures in place across the three primary lifecycle phases

Table 4: Summary of effectiveness of response option or activity grouping

| Focus Area | Criteria addressed | Total |
|---|--|-------------|
| Lifecycle components (3) |  | 2 |
| Environmental zones (4) |  | 1 |
| Geographic range - source-to-sea (river basin management, areas beyond national jurisdiction) (2) |  | 2 |
| Compliance (Reporting across lifecycle phases) (3) |  | 2 |
| Total coverage | | 8/11 |

Additional information will be extracted from the online survey and reflected under each grouping, namely:

- Subnational, national, regional, international
- Binding or voluntary

3. Summarising the comprehensiveness of existing and potential response options and activities

3.1. Number of response options and activities addressing marine litter and microplastics

Table 5: Summary of the number of existing and potential national and sub-national response options and activities addressing lifecycle components










| Lifecycle phase | Criteria addressed | No. Binding | No. Voluntary |
|---|---|-------------|---------------|
| Production <i>(includes production of recycled products)</i> | 1. Eco design (reduction, waste prevention) | | |
| | 2. Microplastics | | |
| | 3. Additives & associated chemicals | | |
| Consumption <i>(across supply chain)</i> | 4. Elimination | | |
| | 5. Reduction | | |
| | 6. Waste prevention | | |
| Waste management | 7. Environmentally sound treatment of wastes | | |
| | 8. Mitigation and environmentally sound removal | | |
| | 9. Economic instruments to support waste management (extended stakeholder responsibility covering production, transport, retailers and consumers) | | |
| | 10. Disaster debris prevention and management | | |




The above table will be repeated for existing and potential response options and activities at the regional and international level, as well as private sector.

3.2. Summary matrix of overall comprehensiveness

The summary matrix will be based on the following.

Table 6: Criteria for measuring effectiveness in addressing the four primary focus areas

















| Focus area | Criteria | Rating | Rating | Rating |
|----------------------------------|--|---|--|---|
| % Lifecycle components addressed | Production, consumption, waste management |  Full |  Partial |  None |
| Environmental zones | Land (soil), freshwater, sea, air |  Full |  Partial |  None |
| Geographic range | Source-to-sea (river basin management, areas beyond national jurisdiction) |  Full |  Partial |  None |

| | | | | |
|------------------------|---|---|--|---|
| | | Full | Partial | None |
| Reporting / Compliance | Reporting in place (implies monitoring, for compliance and information gathering) |  Full |  Partial |  None |

The following table provides an illustrative summary of the overall comprehensiveness of response options and activities.

SN = subnational
 N = national
 R = regional
 I = international

Table 7: Summary of the effectiveness of existing response options and activities*

| # | Response option and activity | Bind /Vol | SN /N /R /I | Lifecycle phases | Geographic range | Environmental zones | Reporting/Compliance | Refer to report |
|-----------------------|------------------------------|-----------|-------------|---|---|---|---|-----------------|
| Government | | | | | | | | |
| 1 | Inter-ministerial committee | B | N |  |  |  |  | Sect. x |
| 2 | Awareness campaigns | B | N |  |  |  |  | Sect. x |
| Private sector | | | | | | | | |
| 9 | Operation Clean Sweep | V | I |  |  |  |  | Sect. x |
| 10 | Recycling Guidelines | V | I |  |  |  |  | Sect. x |

* These are examples only and do not indicate analysis of the activities.

As outlined in UNEP/AHEG/2019/3/5, the AHEG may wish to comment on the methodology proposed to guide the secretariat in carrying out the mandate of subparagraph 7(d).