

Agenda item 6d

Summary of Information Document UNEP/AHEG/2019/3/INF/6

Progress on the Assessment on sources, pathways, and hazards of litter including plastic litter and microplastic pollution; approach and structure

Third meeting of the ad hoc open-ended expert group on marine litter and microplastics
18-22 November 2019 – Bangkok, Thailand

Pursuant to UNEA Resolution 4/6*

Paragraph 2:

“Requests the Executive Director of the United Nations Environment Programme, subject to the availability of resources and benefiting from the work of existing mechanisms, to immediately strengthen scientific and technological knowledge with regard to marine litter, including marine plastic litter and microplastics, through the following activities:”

Subparagraph:

2(b) “Compiling available scientific and other relevant data and information to prepare an assessment on sources, pathways and hazards of litter, including plastic litter and microplastics pollution, and its presence in rivers and oceans; scientific knowledge about adverse effects on ecosystems and potential adverse effects on human health; and environmentally sound technological innovations;”

**(UNEP/EA.4/Res.6)*

Specific Tasks of the Scientific Advisory Committee

Participate and contribute actively during online meetings and the face to face meeting;

- Advise UNEP on the structure of the Assessment and other relevant issues related to the scientific and technical aspects;
- Propose peer reviewers;
- Review and provide comments on the Draft Assessment
- Provide guidance to the authors on incorporating review comments;
- Support the dissemination and outreach of the Final Assessment.

Composition of the Scientific Advisory Committee

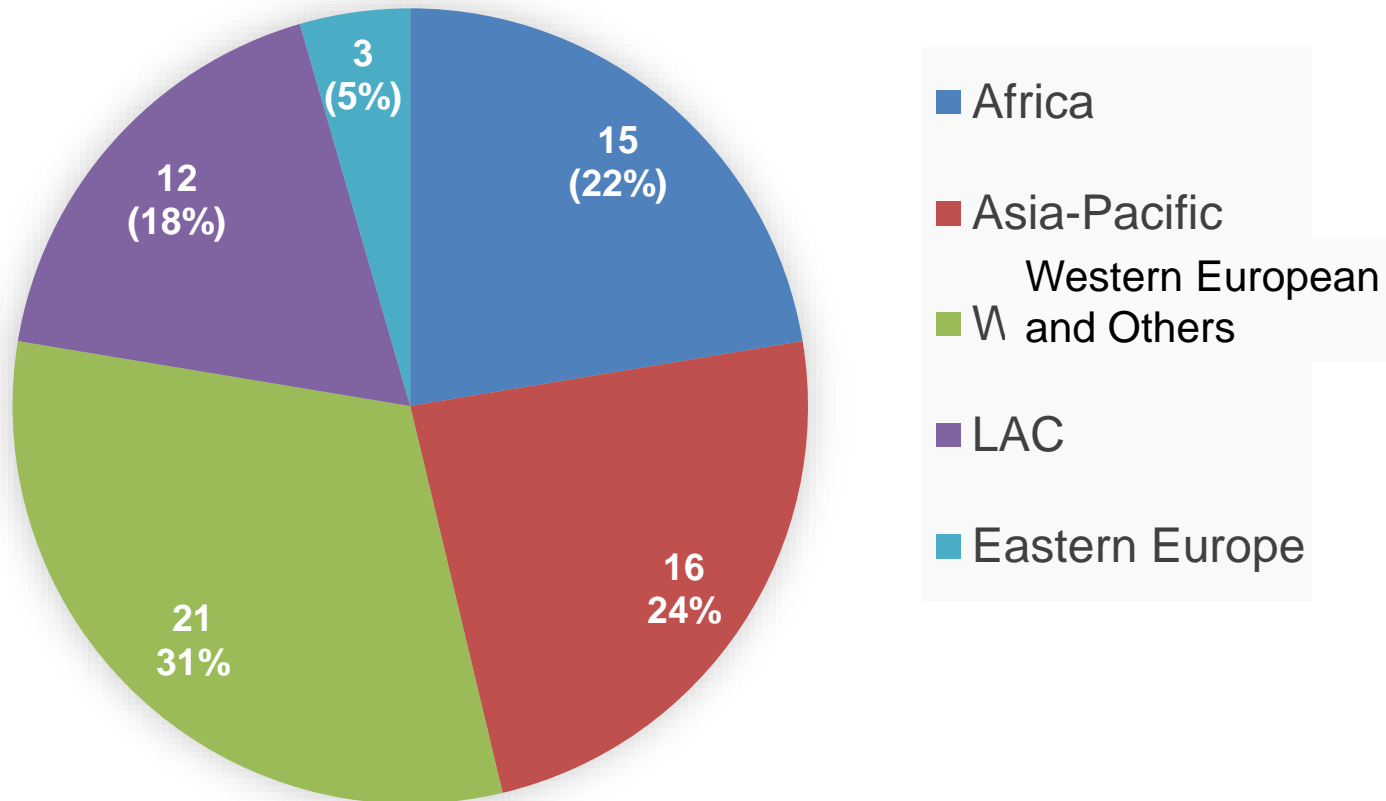
An invitation letter (Committee Note No. 0193 (2019)) was issued to Members States and Major Groups and Stakeholders and re-issued on 5 September 2019 (Committee Note No. 0212 (2019)).

Over 100 nominations were received from **49** Member States (plus **1** from the European Union) and **25** accredited Major Groups and Stakeholders.

There are 67 members of the Scientific Advisory Committee

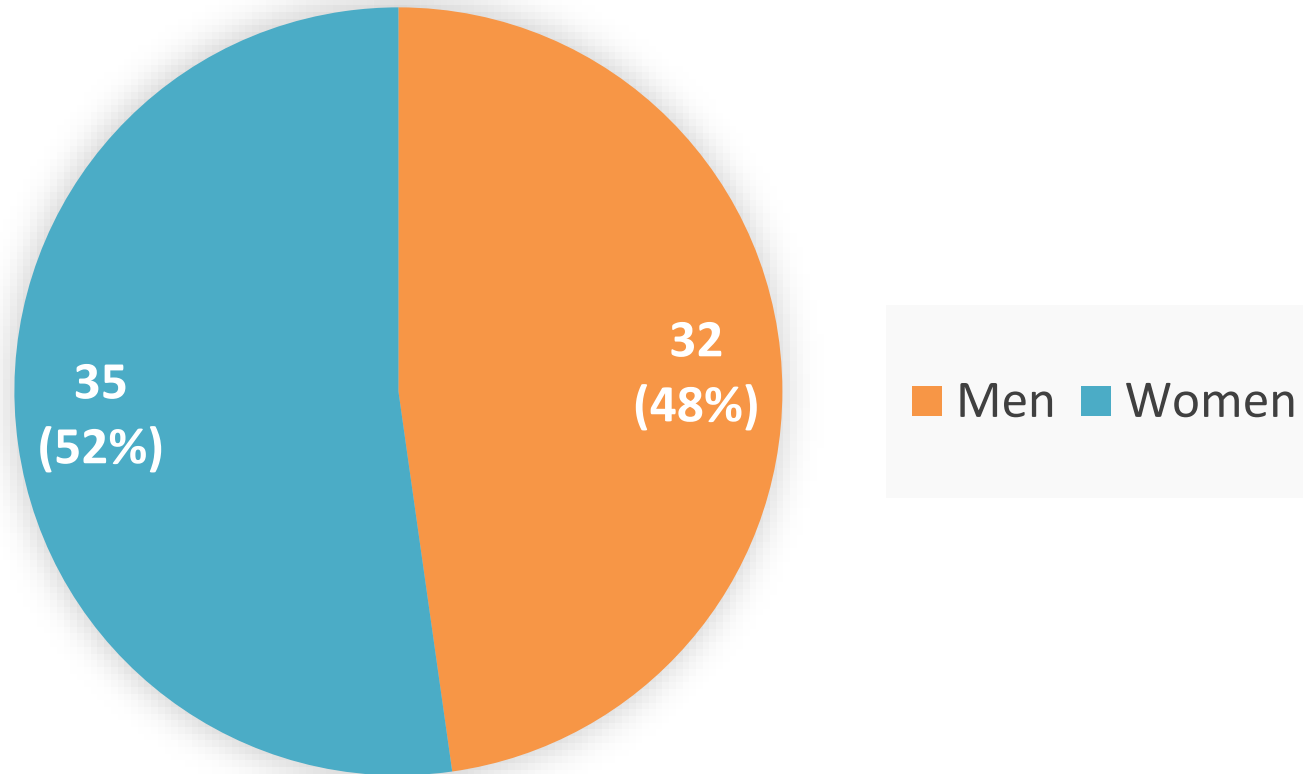
Composition of the Scientific Advisory Committee

Regional balance of the Scientific Advisory Committee



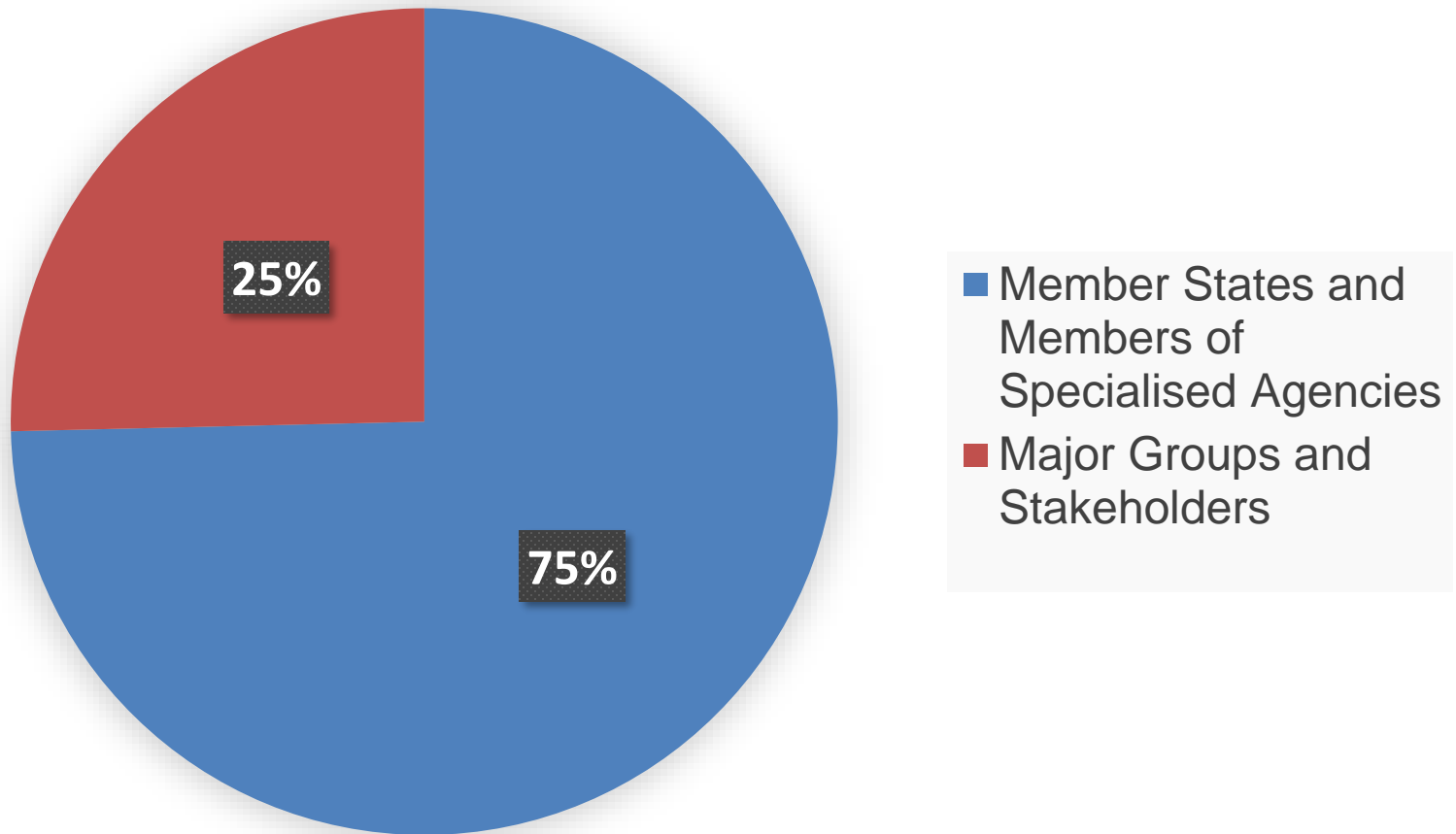
Composition of the Scientific Advisory Committee

Gender balance of the Scientific Advisory Committee



Composition of the Scientific Advisory Committee

Balance of Member States, Members of Specialized Agencies, and Major Groups and Stakeholders



Section 1: Sources of Marine Litter and Microplastics

Sources of marine plastic litter and microplastics, across the lifecycle of plastics and indicating, where possible, the situation in different UN regions;

- Land-based sources
- Management of waste from land-based sources
- Sea-based sources
- Management of waste from sea-based sources
- International and transboundary movement of waste
- Overall trends:
 - estimates of land-based and sea-based inputs of marine litter and micro plastics to the ocean;
 - impacts of natural hazards and climate change;
 - consumer behaviour



Section 2: Pathways, Hazards and Impacts

Pathways and hotspots – latest knowledge and gaps

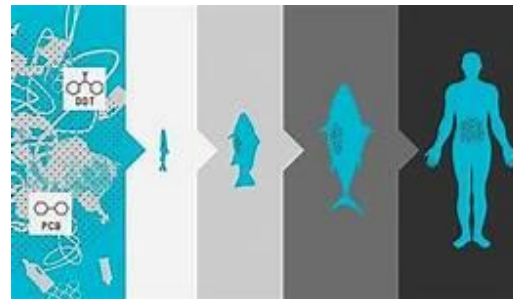
- Chemical and physical properties of plastics
- Freshwater, including wastewater freshwater reservoirs, drinking water, snow and ice, coastal ecosystems
- Marine and ocean circulation and long-range transport and deposition of plastic litter and microplastics
- Aerial: including avian and insect vectors populations
- Airborne transmission, including dust;



Section 2: Pathways, Hazards and Impacts

Hazards and impacts

- Natural hazards and climate change
- Other areas of concern: e.g. emissions; incomplete and uncontrolled combustion
- Nanoplastics as a potential pollutant of concern;
- Impacts on human health
- Impacts on ecosystem health
- Perverse outcomes of alternative materials;
- Gaps in data and identification of poorly understood processes



Circular Economy
for Plastics

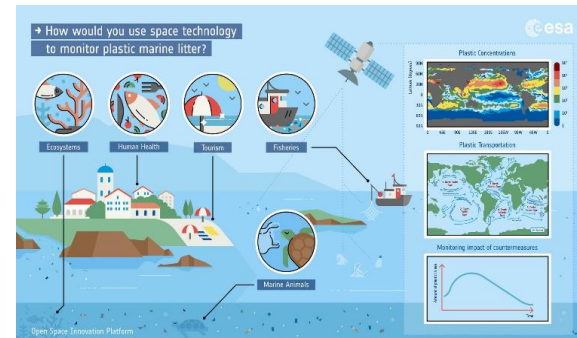
Economic aspects

- Drivers of production volumes of plastics
- Post-consumer recovery costs of plastic.

Section 3: Monitoring, Indicators and Traceability

Monitoring and Indicators

- Latest information and agreements on monitoring of marine litter and debris,
- Methodologies
- Indicators: data, baselines and indicator methodologies;
- Data sharing arrangements and platforms;
- Citizen science initiatives;
- Gaps in monitoring different types of litter and microplastics.



Traceability

- Traceability
- Transboundary movement of plastic waste;
- Extended producer responsibility;
- Product labelling and global standards;
- Access to information about long-term behaviours of constituent chemicals;
- Relevant manufacturing and processing standards across rent value chains.



Section 4: Future Perspectives

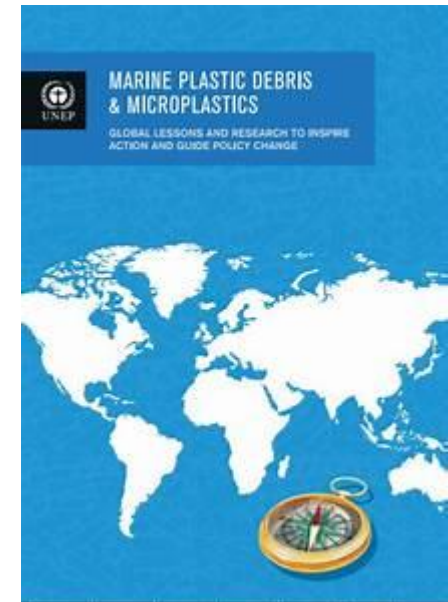
Updates on the 2016 report

Updates on ongoing Reports

- Programmes and actions that are being planned;
- Financial and technical resources and mechanisms;

Trends in Risk Reduction Approaches

Solutions and opportunities, based wherever possible on human and environmental risks, economic viability and circularity elements such as reduce, reuse, and recycle

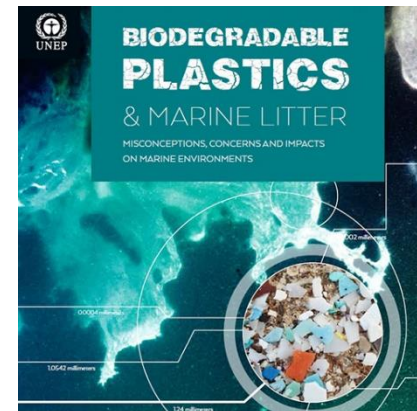


Section 5: Key Research Needs

Which research activities are helping to accelerate knowledge into action? Where are there gaps in the short medium and long term?

Examples:

- Building a global mass balance model estimate for the next decades, to explore scenarios such as zero plastic emission or 100% waste recovery;
- Transparent reporting mechanisms;
- New chemistries and materials that provide characteristics such as flexibility and recyclability;
- Alternative delivery and service models;
- Eco-design and sustainability issues of use of plastics and their substitutes across sectors;
- Monitoring methodologies and technologies;
- Environmental and health impacts;
- Market mechanisms and economic instruments;
- Social and behavioural analysis, cost of inaction and co-benefits of different interventions.



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