



PLANNING OF GESAMP ACTIVITIES:

SOURCES, FATE AND EFFECTS OF PLASTICS AND MICROPLASTICS IN THE MARINE ENVIRONMENT

Report of the Chair of Working Group 40

1 The work of WG 40 in the past 12 months can be split into two broad activities, related to the existing Terms of Reference (ToRs). The first concerned the completion and publication of the GESAMP Guidelines for the monitoring and assessment of marine litter and microplastics (ToR 1). A three-day editors' meeting took place in October 2018, hosted by the World Conservation Monitoring Centre of UN Environment (UNEP-WCMC), to prepare a final draft prior to the final review (external and by GESAMP Members). In addition, a summary report (Overview of The Guidelines for The Monitoring and Assessment of Plastic Litter in The Ocean) was prepared and the report was presented during the second meeting of the Ad Hoc Open-Ended Expert Group, held 3-7 December 2018 in Geneva, Switzerland as technical input. The WG Chair attended this meeting and made a presentation. The full report (GESAMP Reports & Studies 99) was published (on-line) in March 2019 and launched during the 4th UN Environment Assembly (UNEA-4) in Nairobi. Early indications are that the Guidelines have been well received. FAO is using the Guidelines to inform the further development of a marine litter monitoring strategy as part of the EAF Nansen Programme. UNEP is developing a training course based on the Guidelines, in collaboration with the Open University of the Netherlands, with the first course planned to take place in Kenya (August 2019) and the second in South East Asia (September 2019). Some minor corrections are required (the final version was prepared to a very tight deadline) and it is hoped that further hard copies can be printed once this has been completed.

2 The second major achievement this year was the organisation of an international workshop on 'Assessing the risks associated with plastics and microplastics in the marine environment'. The meeting took place from 21 to 13 June in Geneva, hosted by the BRS Convention Secretariat. The organisation of the workshop was made possible thanks to UN Environment which had secured funding for relevant activities and subsequently decided to fund the organization of the workshop. Five UN agencies were represented, four GESAMP sponsoring agencies (IOC, UNEP, FAO and UNIDO) and WHO, together with representatives of several other international bodies, independent experts, NGOs and industry.

3 Part of the rationale for holding the workshop was to help GESAMP refine the current remaining ToRs, engage with potential funding partners and inform GESAMP on the future priorities of the WG40 work programme. However, there may be some useful outcomes for other aspects of GESAMP's work on risk assessment. A report of the workshop is in preparation (Annex I) and it is hoped that this can be published in the Reports & Studies Series, in a similar manner as the Proceedings of the 2010 GESAMP Paris workshop on microplastics (Report & Studies 82). Further progress in tackling the existing ToRs will be dependent on attracting additional funding, and discussions are underway with several potential partners.

* * *

Annex I

Proceedings of the GESAMP International Workshop on assessing the risks associated
with plastics and microplastics in the marine environment
21-23 May 2019, Geneva

DRAFT

Table of contents

Chapter 1 Introduction	2
1.1 Background	2
1.2 Purpose and Rationale for the workshop	3
Chapter 2 An overview of environmental and human health risks (Session 1).....	4
2.1 Introduction	4
2.2 An overview of risks associated with marine plastic litter	4
2.3. Environmental risk from nano- and microplastics.....	5
2.4 Human health risks associated with nano- and micro-plastics.....	5
2.5 Societal aspects of microplastics	8
2.6 Panel discussion	8
Chapter 3 An overview of the international response.....	10
3.1 United Nations agencies (Session 2).....	10
3.1.1 WHO.....	10
3.1.2 Intergovernmental Oceanographic Commission (IOC)	10
3.1.4 Food and Agriculture Organisation of the United Nations (FAO)	10
3.1.5 United Nations Industrial Development Organization (UNIDO).....	10
3.1.6 UNEP Chemicals & Health.....	11
3.2 Related international and regional initiatives (Session 2)	11
3.2.1 OECD	11
3.2.2 International Council of Chemical Associations (ICCA).....	11
3.2.3 European Chemicals Agency (ECHA).....	12
3.2.4 European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC).....	12
3.3 Questions and answers:.....	13
Chapter 4 Scoping the issues (Session 3).....	13
4.1 Introduction	13
4.2 Breakout group A.....	14
4.3 Breakout group B	16
4.4 Breakout group C	18
Chapter 5 Assessing risk and impact (Sessions 4 and 5)	20
5.1 Introduction	20
5.2 Marine environmental risks due to macro-plastics	20
5.3 Marine environmental risks due to nano- and microplastics	20
5.4 Human health risks due to nano- and microplastics	24
5.4.3 Risks associated with pathogens.....	27
5.5 ? Report of the three groups: 3 rd day of GESAMP may 2019.....	28
Chapter 6 Identifying assessment needs and research gaps (Session 6).....	29
6.1 Introduction	29
6.2 Marine environmental risks due to macro-plastics	29
6.3 Marine environmental risks due to nano- and microplastics	29
6.4 Human health risks	31

Chapter 7 Developing an assessment landscape for improving risk assessment of marine plastics and microplastics	33
7.1 Introduction	33
7.2 Exploring risk assessment approaches for macro-plastic marine litter	34
7.3 Exploring environmental risk assessment approaches for nano- and microplastics.....	35
7.4 Exploring human health risk assessment approaches for nano- and microplastics.....	36
7.5 Towards a more harmonized approach	39
Chapter 8 Future steps.....	42
8.1 Exploring opportunities for cooperation and synergies	42
8.2 Recommendations for GESAMP’s future work programme	45
Chapter 9 Conclusions.....	46
References	46
Annexes	47
Annex I GESAMP Working Group 40 Terms of Reference	47
Annex II Workshop participants.....	48
Annex III Workshop agenda	50
Annex Summary table: environmental and societal risks due to macro-plastics – incomplete working document.....	53
Annex Summary table: environmental risks due to microplastics – incomplete working document.....	57
