UNITED NATIONS

EP

UNEP/AHEG/4/7

Distr.: General
18 November 2020

Original: English

United Nations Environment Assembly of the United Nations Environment Programme

Ad hoc open-ended expert group on marine litter and microplastics
Fourth meeting
Online, 9–13 November 2020

Report on the work of the ad hoc open-ended expert group on marine litter and microplastics at its fourth meeting

Introduction

1. Owing to the ongoing coronavirus disease (COVID-19) pandemic, the fourth meeting of the ad hoc open-ended expert group on marine litter and microplastics was held online, from 9 to 13 November 2020.

2. Opening statements were delivered via video by Mr. Sveinung Rotevatn, Minister for Climate and the Environment, Norway, and President of the upcoming fifth session of the United Nations Environment Assembly of the United Nations Environment Programme, and Ms. Susan Gardner, Director of the Ecosystems Division of the United Nations Environment Programme (UNEP), on behalf of Ms. Inger Andersen, Executive Director of UNEP.

3. In his remarks, Mr. Rotevatn extended his warmest greetings to participants, acknowledging the significant impact of the pandemic for many among them. Emphasizing the global nature of the challenge posed by plastic waste, which could now be found on remote islands in the Pacific and in ice and marine life at both poles, he said that the increase in the use of personal protective equipment and single-use plastic items in recent times had placed additional pressure on already overburdened waste management systems. In addition, the pandemic and the importance of the topic of marine litter and microplastics made it necessary to find new ways of maintaining international environmental cooperation, including by means of online meetings, despite the associated challenges.

4. He noted that the fifth session of the United Nations Environment Assembly would be divided into two parts, the first taking place online in February 2021, and the second, devoted to substantive matters, being held in February 2022. Stressing that work had not been put on hold in the meantime, he recalled that, at the opening of the seventy-fifth session of the General Assembly, Heads of State and Government had been unequivocal in calling for the full and timely implementation of the 2030 Agenda for Sustainable Development.

5. In closing, he said that he looked forward to receiving from the expert group its potential options for continued work. He expressed the hope that a face-to-face meeting would be possible in 2022 and that decisive steps would be taken to demonstrate the international community's commitment to reduce levels of marine plastic litter and microplastics and prevent further discharges into the marine environment.

6. In her remarks, Ms. Gardner acknowledged the impact of the COVID-19 pandemic on the work of the expert group, noting that the current online meeting had replaced the two face-to-face meetings that were to have been held at the generous invitations of the Governments of Peru and Rwanda. Nevertheless, the work of the expert group had been rendered even more timely and important by the pandemic; according to the World Health Organization, almost 90 million plastic medical masks were required every month, creating a new challenge in the fight against marine plastic litter.

7. Transboundary problems required strong multilateral responses and UNEP was proud to have long been at the forefront in the fight against marine litter. Since 2012, it had provided secretariat services for the Global Partnership on Marine Litter and, since 2017, it had been encouraging citizens, Governments and the private sector to "turn the tide on plastic" through the Clean Seas Campaign.

8. Government-led action alone was not enough, however, and it was encouraging to see increased interest from the business world. Reducing marine litter required efforts by all, including innovation by Governments, the private sector and civil society to bring about significant and scalable reductions in plastic waste throughout the entire life cycle. She congratulated the ad hoc open-ended expert group on its achievements to date in exploring solutions to the problems of marine plastic litter and microplastics at the national, regional and international levels.

I. Opening of the meeting

9. The meeting was opened by Ms. Gardner at 1 p.m. (Nairobi time (UTC+3)) on Monday, 9 November 2020.

II. Organizational matters

A. Attendance

10. The meeting was attended by representatives of the following Member States: Algeria, Angola, Argentina, Australia, Bahrain, Belgium, Brazil, Canada, Chile, China, Colombia, Costa Rica, Czechia, Democratic Republic of the Congo, Denmark, Dominican Republic, Egypt, Eritrea, Finland, France, Gambia, Germany, Georgia, Greece, Guinea, Guyana, Hungary, India, Indonesia, Iran (Islamic Republic of), Japan, Kenya, Kiribati, Kuwait, Latvia, Madagascar, Malaysia, Mexico, Micronesia (Federated States of), Montenegro, Morocco, Mozambique, Myanmar, Nepal, the Netherlands, New Zealand, Nigeria, Norway, Oman, Palau, Panama, Peru, Philippines, Portugal, Qatar, Republic of Korea, Russian Federation, Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovenia, Solomon Islands, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Togo, Trinidad and Tobago, Turkey, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Venezuela (Bolivarian Republic of) and Zambia.

11. Representatives of the following specialized agencies also attended: Food and Agricultural Organization of the United Nations, International Maritime Organization, Office of the United Nations High Commissioner for Human Rights, secretariat of the Basel, Rotterdam and Stockholm conventions and secretariat of the Strategic Approach to International Chemicals Management.

12. The following intergovernmental, non-governmental, industry, academic and other bodies were also represented: Akvo, American Association of Geographers, Centre for Environmental Justice and Development, Centre for International Environment Law, Centre International de Droit Comparé de l'Environnement, Centre for Oceanic Awareness, Research and Education, Ellen MacArthur Foundation, Emirates Environmental Group, Environment Friends Society, Environmental Investigation Agency, Environment and Social Development Organization, European Union, Fauna and Flora International, Global Alliance for Incinerator Alternatives, Global Call to Action Against Poverty, Greenpeace International, GRIDArendal, Health and Environment Justice Support, Haiti Cholera Research Funding Foundation, Inc., India Water Foundation, Institute for Global Environmental Strategies, Institute for Sustainable Development and Research, Instituto de Investigaciones Marinas y Costeras, International Council of Chemical Associations, International Centre for Environmental Education and Community Development, International Institute for Sustainable Development, International Movement for Advancement of Education Culture Social and Economic Development, International Pollutants Elimination Network, iuventum e.v., Kenya Environment Waste Management Association, Korea Maritime Institute, Kuwait Water Association, Last Beach Cleanup, Marine Ecosystem Protected Area Trust of Antigua and Barbuda, MarViva, Major Group for Children and Youth, North Carolina State University, OceanCare, Ocean Conservancy, Pacific Regional Environment Programme, Pew Charitable Trusts, Plastic Soup Foundation, Somali Youth Development Foundation, United States Council for International Business, University of Plymouth, University of Toronto, Vision on Technology for a Better World, Welfare Togo, World Plastics Council, World Wide Fund for Nature and Zero Waste Europe – Break Free from Plastic.

B. Election of officers

13. At the third meeting of the ad hoc open-ended expert group, in accordance with paragraph 3 of rule 63 and paragraph 2 of rule 18 of the rules of procedure of the United Nations Environment

Assembly, a chair, three vice-chairs and a rapporteur had been elected, by acclamation, to the Bureau of the third meeting of the ad hoc open-ended expert group on marine litter and microplastics. The expert group had decided that the Bureau members would serve for any subsequent meetings of the group, and until the fifth session of the United Nations Environment Assembly. On 8 July 2020, however, in accordance with rule 22 of the rules of procedure of the United Nations Environment Assembly, Mr. Satoru Iino (Japan), Vice-Chair, had been designated by the Bureau to serve as Acting Chair until further notice to replace the Chair, Ms. Jillian Dempster (New Zealand), who had indicated that she was no longer in a position to perform her functions. On 28 August 2020, the Government of New Zealand had announced that it would be resigning from the Bureau. In accordance with rule 19 of the rules of procedure, the Western European and other States had nominated Sweden as the replacement for New Zealand, with Ms. Pernilla Åhrlin designated to serve as its representative.

14. The ad hoc open-ended expert group elected the following officials by acclamation:

Chair:	Mr. Saturo Iino (Japan) (Asia-Pacific States)
Vice-Chairs:	Ms. Rose Makena Muchiri (Kenya) (African States)
	Mr. Ruslan Butovsky (Russian Federation) (Eastern European States)
	Ms. Pernilla Åhrlin (Sweden) (Western European and other States)
Rapporteur:	Ms. Karen Watson (Guyana) (Latin American and Caribbean States)

C. Adoption of the agenda

15. The following agenda was adopted on the basis of the provisional agenda set out in documents UNEP/AHEG/4/1 and UNEP/AHEG/4/Add.1:

1. Opening of the meeting.
2. Organizational matters:
   (a) Election of officers;
   (b) Adoption of the agenda;
   (c) Organization of work.
3. Progress in relevant work pursuant to United Nations Environment Assembly resolution 4/6 on marine plastic litter and microplastics.
4. Consideration of paragraph 7 of United Nations Environment Assembly resolution 4/6:
   (a) Taking stock of existing activities and action (resolution 4/6, para. 7 (a));
   (b) Identification of technical and financial resources or mechanisms (resolution 4/6, para. 7 (b));
   (c) Encouragement of partnerships that undertake activities in relation to the prevention of marine litter (resolution 4/6, para. 7 (c));
   (d) Analysis of the effectiveness of existing and potential response options and activities (resolution 4/6, para. 7 (d)).
5. Consideration of submissions on potential response options pursuant to paragraph 10 (d) of United Nations Environment Assembly resolution 3/7 on marine litter and microplastics.
6. Preparations for the fifth session of the United Nations Environment Assembly.
7. Other matters.
8. Adoption of the report of the meeting.
9. Closure of the meeting.

D. Organization of work

16. Recalling that the operational guidelines for the current meeting were set out in document UNEP/AHEG/4/INF/11, the Chair said that the meeting would be held by means of five daily online sessions to be held at 1–3 p.m. and 3.30–5.30 p.m. (Nairobi time (UTC+3)), respectively, from 9 to 13 November 2020. The meeting would be held on the online platform, Interprefy, with simultaneous interpretation in the six official languages of the United Nations. He explained the use of the platform, highlighting ways of maximizing its effectiveness.

17. The Chair informed participants that, in the event that he was temporarily unable to fulfil his role, he would, in accordance with rule 21 of the rules of procedure, appoint Vice-Chair Ms. Åhrlin to replace him.

III. Progress in relevant work pursuant to United Nations Environment Assembly resolution 4/6 on marine plastic litter and microplastics

18. Introducing the item, the Chair invited a representative of the secretariat to provide a series of technical updates on relevant developments in the work undertaken pursuant to United Nations Environment Assembly resolution 4/6 on marine plastic litter and microplastics.

19. The representative of the secretariat recalled that, at its third meeting, the ad hoc open-ended expert group had requested an update on issues related to paragraphs 2, 3 and 8 of Environment Assembly resolution 4/6. That update would be presented at the current meeting, together with other updates on relevant work being undertaken.

A. Assessment of sources, pathways and hazards of litter, including plastic litter and microplastics pollution (subparagraph 2 (b) of resolution 4/6))

20. A representative of the secretariat provided an overview of the information set out in document UNEP/AHEG/4/INF/3, recalling the mandate provided in subparagraph 2 (b) of resolution 4/6 and outlining the role of the scientific advisory committee that had been established to support the development of the assessment of the sources, pathways and hazards of litter through the provision of scientific information, data, experiences, reviews and advice. The Committee, which comprised 67 members nominated by Member States and accredited organizations, had worked by means of online and in-person meetings since October 2019. The draft assessment had undergone two reviews; the first had elicited some 1,600 comments and the second some 780.

21. Subsequently, a representative of the secretariat presented some of the draft outcomes of the assessment. She said that the assessment had found that plastics were the largest, most harmful and most persistent fraction of marine litter, with growing volumes recorded in all marine and coastal environments. It was estimated that 80 per cent of plastics entering the oceans eventually accumulated in areas beyond national jurisdictions and that 85 per cent of total marine waste was plastic, with the amount of plastic in the oceans estimated to be between 75 and 150 million tonnes.

22. Some 7,000 million metric tonnes of plastic waste had been generated since the 1950s and it was estimated that between 60 and 100 million metric tonnes of mismanaged municipal waste had entered the oceans directly. The main sources of marine plastics were land-based, including from landfills and mismanaged waste streams, accidental loss during production and waste plastics from transportation, wastewater treatment and agriculture. Environmental sinks, including reservoirs, agricultural soils and marine sediments, could also act as sources. Smaller amounts came from commercial and recreational ships and other vessels, as well as fishing and aquaculture.

23. There were four major pathways through which plastics entered the marine environment: rivers, sewage and wastewater, the air, and snow and ice. Microplastics and nanoplastics were generated by photodegradation, hydrolysis, abrasion and biodegradation, as well as by poor disposal of personal care and household products and through run-off from agricultural applications. The lifetime of everyday plastic items, such as bottles and toothbrushes, ran to decades, and potentially even centuries. Without action, it was estimated that the volume of plastics entering the oceans could triple by 2060. Studies showed that the majority of biodegradable plastics and blends failed to degrade in the marine environment or even to meet biodegradation standards.

24. Since the publication of the 2016 UNEP report *Marine Plastic Debris &Microplastics – Global Lessons and Research to Inspire Action and Guide Policy Change*, there had been a significant increase in evidence of the harmful environmental effects of marine plastics, such as the smothering of coral reefs; the entanglement, starvation and drowning of birds, fish, and migratory species such as turtles and mammals; and the physiological and toxicological stress and starvation of plankton, shellfish, invertebrates, fish, seabirds, turtles and marine mammals. Similarly, research into the effects of human exposure to plastics and their component chemicals, via the skin or ingestion, showed that plastics posed a real hazard to human health. They could cause neurodevelopmental disorders; endocrine disruption; respiratory, cardiovascular and metabolic disease; cancer; adverse reproductive and pregnancy outcomes; and decreased antibody responses to vaccines.

25. Microplastics, furthermore, were risk amplifiers, acting as floating substrates for biofilms and microbial communities and by providing large surfaces for the sorption of environmental contaminants and the leaching of chemicals. Chemical releases could occur from microorganisms that used plastic

waste as food and produced bioactive chemicals, such as antibiotics, in secondary metabolites. That was an example of cascade pollution.

26. She explained that some researchers considered the presence in plastics of chemicals with known health impacts to be a sufficient reason for a precautionary approach to be adopted. Others considered that the risks and endpoints associated with chemical additives at the concentrations used in laboratory tests did not match the concentrations measured in the field. There was thus an urgent need for a more elaborate risk assessment framework supported by high-quality, holistic monitoring studies and more environmentally realistic studies on effects in order to enable the full characterization of the toxicological risks of microplastics and their leachates.

27. The global market for plastic products was valued at more than $1 trillion and was projected to grow to $2 trillion by 2022. Separately, the total natural capital value to society of the production of plastic consumer goods had been estimated at a further $75 billion per year. The latest estimate of annual losses due to marine plastics was $500 billion to $2,500 billion, compared with the $13 billion mentioned in the 2016 UNEP report. Direct economic losses to coastal and maritime industries, such as fisheries and shipping, were also very significant.

28. In the ensuing question and answer session, one representative, thanking the Scientific Advisory Committee for its work, pointed out that all continents, regions and countries experienced different realities, which were constantly changing; he therefore proposed moving to a regional model based on new evidence generated by research.

29. One representative from among the major groups and stakeholders, underlining the dangers to human health of microplastics, said that climate change would lead to a lack of water and push certain countries to obtain their water through the desalination of seawater. She asked whether they should. The representative of the secretariat said that the matter of desalination had been raised in the assessment and that it was a challenge for industry to see how it could introduce filters for the purpose of removing plastics.

30. In response to a request for more information about the studies that underpinned the assessment conclusions relating to human health, she said that a group with a strong medical focus, the *Lancet* Commission on oceans and human health, was putting together the information, which included peer-reviewed papers. As mentioned, however, the authors of the assessment had also presented the opposing view that plastics levels in the oceans might not be equivalent to what had been seen in laboratories.

B. Establishment of a digital multi-stakeholder platform for marine litter and microplastics

31. Drawing attention to the information set out in document UNEP/AHEG/4/INF/4, a representative of the secretariat said that the aims of creating a digital multi-stakeholder platform were to integrate data and information from multiple sources, connect stakeholders, identify gaps and priority actions, coordinate and guide action, and facilitate target-setting and the measuring of progress against the Sustainable Development Goals and other environmental indicators. The platform would serve a range of stakeholder groups, including local and national governments, scientific and technological communities, private sector stakeholders, non-governmental and intergovernmental organizations and private citizens.

32. The conceptual architecture for the digital platform brought together internal and external databases and other applications through a single point of entry called a virtual quarterdeck, where users would be able to access tools for simple data analysis and for measuring and tracking progress. The platform would also offer access to information ranging from policy documents to peer-reviewed publications and white papers. As the digital arm of the Global Partnership on Marine Litter, the platform would enable ad hoc virtual collaboration, including through simple opportunities for content sharing and interacting, and more sophisticated matchmaking opportunities.

33. The platform would draw on a number of existing UNEP initiatives, including the Science-Policy-Business Forum on the Environment and the World Environment Situation Room. The platform also recognized and sought to build upon substantial contributions from academia, non-governmental organizations and the private sector. To complement the platform, UNEP had developed a data strategy to provide accurate, authoritative and up-to-date information and analysis tools while also making broader contributions to a range of communities engaged in monitoring and mitigating marine litter and plastic pollution. There were three primary pillars to the strategy: providing direct access to high-value data, supplying tools for open data analysis and working with a range of partners to develop tools for decision support.

34. The platform was intended to serve as the central mechanism for tracking marine litter at the global level and to provide information that could be used for national and local action planning and

decision-making. While the starting point would be data related to target 14.1.1b of the Sustainable Development Goals, as the platform matured, the scope would be expanded to encompass complementary data, including on related Sustainable Development Goals. The platform built on research documented in a white paper entitled "A global platform for monitoring marine litter and informing action", which was a valuable starting point for making high-level goals more concrete and actionable.

35. Foundational technology development work had been carried out with IBM through activities that included a workshop on ideas for relevant pilots, and the presentation of a data analysis pilot and a virtual agent powered by artificial intelligence. A microsite was being created to present the prototyping work.

36. Ultimately, the digital platform would build on a wide range of databases, tools and other products relevant to the ad hoc open-ended expert group on marine litter and microplastics. Key resources to highlight would include the plastic flow model created by researchers at Florida State University. Incorporating such products in the digital platform would help to reach new audiences and provide a common point of entry for a range of important products. More details on the platform would be shared in a webinar tentatively scheduled for 30 November 2020. During a user workshop to be held in December, stakeholder groups would be invited to describe their needs. The platform would be piloted in three countries from January 2021. The release of phase 1 would take place in February 2021. The final release of the full platform would be no later than June 2023.

37. One representative said that strengthening environmental education was fundamental to improving behaviour related to consumption and the management of waste. The information presented on the platform should be adapted to the different capacities of students, scientists and other stakeholders and should, to the extent possible, include audiovisual and other easily understandable content that was accessible to the general public, in addition to data and technical papers for experts. Another representative proposed that the platform should be discussed during the consideration of submissions on potential response options under agenda item 5.

38. One representative, supported by several others, said that, while he could see how the platform might bring added value, it should be only one of many elements used to tackle the issue of marine plastic litter and microplastics. Moreover, there were possible risks associated with the platform, such as a lack of quality control if stakeholders uploaded information on every one of their activities, a lack of appropriate weighting if large- and small-scale initiatives were afforded the same importance, and a lack of coordination if efforts were not made to draw connections. In any event, the end goal should not be to analyse as many activities as possible.

39. One representative, noting the significant developments in the evidence base since 2016, urged the secretariat to consider how recent and future developments in the evidence base would be reported at the fifth session of the United Nations Environment Assembly, bearing in mind that resolutions on marine litter were unlikely to be negotiated until 2022.

40. Responding to comments, the representative of the secretariat said that the team behind the development of the platform was aware of the need for coordination and to build on existing initiatives. Dedicated action tracks would be launched to facilitate regular coordination among experts and the identification of synergies. In terms of quality control, the team was investigating a range of mechanisms to bring experts together to peer review or otherwise assess content before it was made available on the platform to ensure that it was authoritative, relevant and up to date.

C. Provisional mapping of all United Nations agencies, programmes, initiatives and other sources of expertise relating to marine litter, including plastic litter and microplastics

1. Environment Management Group

41. Drawing attention to the relevant information set out in document UNEP/AHEG/4/INF/5, a representative of the secretariat said that the United Nations Environment Management Group had established an interagency task team consisting of 23 member entities and 1 observer to facilitate preparatory work. The team had met and agreed on its terms of reference. In order to provide a comprehensive overview of United Nations activities and initiatives to address marine litter and microplastics, data had been collected through a desk study of available resources, individual consultations with United Nations entities represented on the team and in-depth interviews with 26 additional United Nations entities. The involvement of those entities in marine litter efforts, internally available expertise, possible gaps, areas of synergy and opportunities for further cooperation had been analysed and described in a zero draft of a mapping report that would be reviewed internally over the following months.

42. The end product would be divided into five main sections, namely an introduction; an overview of key processes, agreements and commitments in the area of marine litter and microplastics; a description of the mapping of United Nations entities' mandates, expertise and initiatives directly or indirectly related to marine litter and microplastics; a presentation of the findings, including identified gaps, areas of synergy and opportunities for further collaboration; and conclusions and recommendations.

43. Although the report had yet to be reviewed by the task team, she nevertheless wanted to share some preliminary findings. According to the data gathered, 31 per cent of United Nations entities were directly involved in addressing marine litter through an explicit mandate and/or significant activities, a further 31 per cent had categorized their involvement as partial and 4 per cent had reported no involvement at all. The broad range of activities engaged in by United Nations entities tackled marine litter and microplastics from several different angles, including addressing its drivers, such as production and consumption in various sectors; its impacts, including its environmental and socioeconomic effects; and responses to it, such as waste management and a circular economy. Entities with direct involvement operated mostly in the field of marine environmental and ocean matters (Sustainable Development Goal 14). The efforts of United Nations entities seemed to focus predominantly on downstream impacts, addressing sea-based sources of marine litter, and waste-related solutions. There had been a gradual increase in activities related to the promotion of a circular economy. The most common activity was the provision of technical assistance to Member States. While many programmes and projects were global in nature, entities ran marine litter and related projects in various regions of the world, with a concentration in sub-Saharan Africa and South-East Asia.

44. The task team and the entities that had participated in the in-depth interview process would be invited to provide comments on the zero draft, which, once reviewed and accepted by the team, would be uploaded to the Environment Management Group website. The executive summary would be translated into French and Spanish, and possibly other languages. The final report would be made available in time for the fifth session of the United Nations Environment Assembly.

45. A number of representatives expressed their gratitude to the Environment Management Group for its efforts to produce a mapping report.

46. One representative said that the report did not appear to reflect the amendments to Annexes II, VIII and IX to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, known as the "plastic waste amendments", which had been adopted by the Conference of the Parties at its fourteenth meeting with the objective of enhancing the control of the transboundary movements of plastic waste and clarifying the scope of the Convention as it applied to such waste, and would enter into force on 1 January 2021. He had also seen no mention of regional political declarations or action plans calling for a legally binding global agreement to combat plastic pollution, for instance the "Pacific Regional Action Plan: Marine Litter 2018–2025". Regional instruments, such as the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa and the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) should also be included.

47. A representative of the secretariat gave an update on the progress made in implementing Environment Assembly resolution 4/9, entitled "Addressing single-use plastic products pollution", specifically operative paragraph 8 (c), in which the Environment Assembly had requested the Executive Director of UNEP, in partnership with other United Nations agencies, funds and programmes, to make available information on the action already taken by Member States to address plastic pollution and on the full life cycle environmental impact of plastic products in comparison with that of alternative materials. Through the Life Cycle Initiative, life cycle assessment meta-studies had been carried out on shopping bags, beverage bottles, take-away food packaging, tableware, beverage cups, nappies, feminine hygiene products and face masks. In addition, examples of actions taken by Member States to address pollution from single-use plastic products had been disseminated in a series of webinars in October 2020. All the studies were accessible, or would be by the end of 2020, at https://www.lifecycleinitiative.org/single-use-plastic-products-studies.

48. The results of the meta-studies demonstrated that life cycle assessments could usefully inform the development of policy on single-use plastic products by identifying environmental impact trade-offs between such products and their alternatives. The studies also provided information to policymakers regarding changes that were needed. Most of the actions reported related to use or end-of-life phases. However, the product design phase was a critical area of action in efforts to reduce environmental impacts. In that regard, more comprehensive policies were emerging that aimed to address multiple stages of plastic product life cycles. The impacts of litter and microplastics were not yet considered in life cycle assessment studies, and thus needed to be borne in mind alongside the results of those studies, as did other factors such as socioeconomic conditions and culture.

49. One representative said that her country continued to advocate basing all marine litter efforts on the best available science and greatly appreciated the work of UNEP to enhance communication and cooperation in that regard.

2. Basel Convention

50. Mr. Rolph Payet, Executive Secretary of the Basel, Rotterdam and Stockholm Conventions, said that the plastic waste amendments to the Basel Convention, adopted by the Conference of the Parties to the Basel Convention at its fourteenth meeting, represented the only legally binding global instrument on controlling the transboundary movement of plastic waste to ensure its environmentally sound management. The effective implementation of the amendments, as of 1 January 2021, would enable countries to strengthen the control of trade in plastic, continue recycling, ensure the environmentally sound management of plastic and prevent and minimize the generation of plastic waste.

51. Technical guidelines on plastic waste and other guidance documents were being developed by expert groups to support countries in the implementation of the amendments. The Basel Convention secretariat was also providing technical assistance to countries with a focus on the three pillars of the Convention. Pilot projects were being implemented in Bangladesh, Ghana and Sri Lanka, and more projects were planned, including through the small grant programme of the regional centres and through the Partnership on Plastic Waste.

52. The secretariat of the Basel, Rotterdam and Stockholm conventions was contributing to the work of the ad hoc open-ended expert group on marine litter and microplastics, including the stocktaking exercise, and was cooperating closely with UNEP in implementing the mandates provided in the resolutions of the United Nations Environment Assembly. Activities were ongoing, including through partnerships, the publication *Marine Litter Vital Graphics* and an online platform to share the information on regional and national initiatives to address plastic pollution.

53. The COVID-19 pandemic was adding significantly to global plastic pollution owing to the key role played by plastics in protecting people, especially frontline workers, from the disease. Cities facing high rates of COVID-19 were struggling to manage the dramatic increase in medical waste, which would have long-term impacts on the environment.

54. The Basel Convention had developed technical guidelines on the environmentally sound management of medical waste and had published factsheets to raise awareness of the problem and to support countries in putting in place mechanisms to address the additional pressure on waste management capacity resulting from the pandemic. Collaboration by all would be key in building back better and tackling plastic pollution during the pandemic recovery phase.

3. Regional Seas Programme

55. Ms. Kerstin Stendahl, Coordinator, Ecosystems Integration Branch, said that the Regional Seas Programme worked to strengthen regional ocean governance mechanisms and to enhance cooperation and coordination to address marine and coastal issues. Through its 18 regional seas conventions and action plans, the programme was supporting more than 143 countries in their efforts to conserve, protect and sustainably develop their marine and coastal areas. The Regional Seas Programme offered an effective platform to support Member States in the implementation and monitoring of national and regional targets and international initiatives and treaties, with institutional, legal, voluntary, and financial frameworks. The programme brought together all the key actors and stakeholders, including national authorities and relevant regional organizations, to address the accelerating degradation of oceans and coasts through the coordinated implementation of targets at the national, regional and global levels. The Regional Seas Programme collaborated with international entities such as the Food and Agriculture Organization of the United Nations, the International Maritime Organization, the Intergovernmental Oceanographic Commission, and multilateral environmental agreements such as the Convention on Biological Diversity. International collaboration was required to develop joint actions for the implementation, monitoring and reporting of global targets and commitments under the 2030 Agenda for Sustainable Development and many other international environmental agreements.

56. The Sustainable Development Goals and their targets, in particular Sustainable Development Goal 14, "Conserve and sustainably use the oceans, seas and marine resources for sustainable development", provided strong impetus for regional and institutional cooperation to support coordinated action across shared sea basins. The ocean-related Sustainable Development Goals and targets could only be achieved through cross-sectoral cooperation between institutions and stakeholders. As an example, addressing pollution sources required action from sectors such as navigation, fisheries, agriculture and mining. In that regard, regional seas programmes provided concrete measures for coordinated action, including protocols for land- and sea-based pollution and for

protected areas; specialized action plans, programmes and initiatives; harmonized guidelines and indicators; and monitoring programmes.

57. Due to the transboundary nature of pollution, the Regional Seas Programme was well-placed to tackle the increase in plastic waste resulting from the mass production of pandemic-related personal protective equipment. The Programme had adopted action plans or strategies that included the polluter pays principle, a precautionary or ecosystem-based management approach and the encouragement of investment in coastal ecosystem conservation. Key actions taken to control, reduce and mitigate the impacts of pollution included identifying sources of pollution and monitoring them, assessing the environmental, social and economic impacts of pollution, performing strategic environmental assessments and environmental impact assessments, and developing approaches to assessment and indicators.

58. The Regional Seas Programme welcomed the work done by the ad hoc open-ended expert group in the global effort by countries to address marine litter and microplastics. Combating marine pollution required commitment and effort by all actors, including Governments, the private sector, civil society, researchers, academia and local communities.

4. Strategic Approach to International Chemicals Management

59. Ms. Brenda Koekkoek, Programme Management Officer, Strategic Approach to International Chemicals Management (SAICM), said that SAICM was a voluntary global policy framework administered by UNEP whose purpose was to promote and implement chemical safety. Some plastics contained chemicals harmful to human health and the environment, such as phthalates, polyfluorinated chemicals, bisphenol A and brominated flame retardants. To protect health and ecosystems, harmful chemicals needed to be excluded from the value chain as early as possible, in the design and production phase, or, as a last resort, during plastics recycling. Early elimination of such harmful components enabled better recyclability of plastics and supported toxic-free circularity.

60. The secretariat of SAICM had released a policy brief entitled "Plastics and chemicals of concern in consumer products", which highlighted the need to remove chemicals of concern through product design, enhance regulations and compliance with those regulations, strengthen science and technical knowledge related to chemical additives, increase traceability and the reliability of information, and strengthen commitments and standards for the phase-out of certain chemical additives. Doing so would require coordinated action along the plastic value chain through the promotion of collective solutions and innovation to achieve circularity.

61. Chemicals and waste were addressed under Sustainable Development Goal 12, in particular under target 12.4, and a number of substances of concern were already controlled at the global level under the Stockholm Convention on Persistent Organic Pollutants. As an inclusive, multi-stakeholder and multisectoral framework, SAICM was unique in its ambition and provided the forum and opportunity for Governments, industry, non-governmental organizations, international organizations and academics to discuss, coordinate and act on chemicals throughout their life cycle, in an atmosphere of trust and cooperation. A number of areas linked to marine plastic litter and microplastics were being considered as emerging policy issues under SAICM, including endocrine-disrupting chemicals, nanomaterials and the dissemination of chemical-related information within product value chains. The SAICM secretariat and stakeholders were collaborating with multilateral environmental agreements and other key initiatives to foster streamlined and effective participation on common goals. The current mandate of SAICM would expire in 2020, and an intersessional process was under way to prepare recommendations regarding SAICM and the sound management of chemicals and waste beyond 2020 for consideration by the International Conference on Chemicals Management at its fifth session in 2021.

62. Although the scope of SAICM was broad, it did not currently expressly address marine plastic litter or microplastics. Discussions on the sound management of chemicals and waste beyond 2020 would provide opportunities for new programmatic areas and new areas of focus, including for capacity-building and knowledge sharing and promoting innovation. Stakeholders wishing to participate in the SAICM process should contact the Strategic Approach secretariat at saicm.chemicals@unep.org.

5. Discussion

63. Summarizing the discussion under agenda item 3, the Chair said that, while the latest progress in enhancing scientific understanding of the pathways and hazards of marine plastic litter and microplastics was not at the centre of the group's mandate, the related science nevertheless served as the basis for the group's discussion on the way forward. The multi-stakeholder platform had been identified as a potential response option in many of the submissions received from participants, although concerns had also been raised that it should not be relied upon to the exclusion of other

options. He looked forward to continued updates from the secretariat on both scientific advances and the feasibility of using the multi-stakeholder platform as a potential response option. The secretariat would be organizing a webinar on the platform and he encouraged participants to attend and consider contributing to the development of the platform.

64. Turning to the mapping exercise, he said that it was intertwined with the stocktaking exercise. Thanking the presenters of the updates and overviews of relevant initiatives, he underscored the importance and relevance of such initiatives and achievements to the discussions of the group. The information shared in that context would serve to inform the discussions on other agenda items at the current meeting with a view to fostering collaboration for more effective solutions as the meeting progressed.

65. In the ensuing discussion, one representative said that, in the latest draft assessment of the sources, pathways and hazards of litter, including plastic litter and microplastic pollution, estimates of the cost of hazards to human health from such litter had increased from $13 billion to somewhere in the range of $500 billion to $2,500 billion. That increase highlighted that, although studies continued to inform the work of the group, it was urgent for the group to provide clear recommendations to decisively move towards the adoption of a global, legally binding framework.

66. Responding to the comment, a representative of the secretariat clarified that the new figure of $500 billion to $2,500 billion included data on losses to ecosystem services that had previously been unavailable.

67. Another representative, speaking on behalf of major groups and stakeholders, asked why their participation had been limited to interventions of one minute as opposed to three or five minutes, as had been the case at previous meetings. He suggested that, as the meeting was an expert group meeting rather than a negotiating meeting, stakeholders be allowed to intervene on equal footing with country representatives.

68. Responding to the intervention, the Chair said that the time limitations responded to the time constraints imposed by the online meeting format and that, although the role of government participants was of primary importance for the achievement of the group's mandate, the request to limit other interventions was a guiding principle rather than a rule.

IV. Consideration of paragraph 7 of United Nations Environment Assembly resolution 4/6

69. The Chair, introducing the item, recalled that it encompassed four sub-items, which corresponded to paragraphs (a) to (d) of paragraph 7 of United Nations Environment Assembly resolution 4/6.

A. Taking stock of existing activities and action (resolution 4/6, para. 7 (a))

70. Introducing the sub-item, the Vice-Chair drew attention to the information set out in documents UNEP/AHEG/4/2 and UNEP/AHEG/4/INF/6.

71. A representative of the secretariat gave a presentation on the stocktaking exercise, recalling that it had been undertaken in response to subparagraph 7 (a) of United Nations Environment Assembly resolution 4/6. The submissions that had been received covered actions existing now, starting from 1st of January 2018 . The information had been submitted through an online survey or in narrative form. The stocktaking exercise was non-exhaustive and was intended to provide a snapshot of the period concerned.

72. By 31 July 2020, information about 220 actions had been submitted via the online survey. Those actions had been carried out by 41 United Nations entities, 51 government entities, 32 major groups and stakeholders, 21 intergovernmental organizations and 75 other stakeholders. The preliminary results had been grouped into four categories of action: working with people (44 per cent of the actions); legislation, standards and rules (24 per cent); monitoring and analysis (17 per cent); and technology and processes (15 per cent).

73. She outlined the responses received in the four categories. The top two categories of action were "working with people" and actions that changed "legislation, standards and rules". Within the category "working with people", the most frequent actions related to awareness-raising and behaviour change, and education and training. Within "legislation, standards and rules", the most frequently reported actions related to legislation or regulation and policy change, with taxes, subsidies and financial incentives being mentioned less often. Within "monitoring and analysis", actions were happening mainly on the shoreline and involved environmental review and synthesis, as opposed to monitoring of biota or the water column. It was noted that 25 different monitoring protocols had been

used for the 37 monitoring actions reported. Within "technology and processes", the most frequent responses related to changes in practice and operations, new product design, and research and development. The focus on research and development actions was mainly on waste management and on production processes. Fewer mentions were made of technology and process actions related to compostable, biodegradable or bio-based plastic.

74. The results were also looked at through the prism of four cross-cutting themes: geographic focus; environmental zone; life-cycle phase; and reporting and evaluation. The geographic focus of actions was mainly national and sub-national, and in some cases bilateral and trilateral. In terms of environmental zone, the coastal zone and urban environment were most frequently the focus within the category "working with people". The coastal zone was also the main focus for "monitoring and analysis" and a major focus for actions relating to "technology and processes", along with waste-disposal sites and the urban environment. In terms of plastic life cycle, actions more frequently targeted the end of the life cycle, from use onwards; fewer actions targeted the design, manufacture and raw material phase. Actions targeted mainly macroplastics, with specific products (mainly plastic bags, bottles and food packaging) and specific sectors (mainly the food and beverage, packaging, tourism and fisheries sectors) being the main focus of such actions with fewer reported actions targeting other sectors.

75. In addition to the online survey, there had been 63 narrative submissions: 26 from Governments; 24 from major groups and stakeholders; 11 from United Nations entities; and 2 from intergovernmental organizations. In addition, 13 narrative updates on action and progress reported within the G20 Implementation Framework for Actions on Marine Plastic Litter had been included in the stocktaking exercise. The narrative submissions showed that legislation, policies, standards, rules and strategies continued to be updated, that bans had been enacted and that fiscal incentives or disincentives had been put in place. The submissions also outlined the various other measures being undertaken, including some that related to waste management, extended producer responsibility schemes, the circular economy approach, biodegradable plastics, capacity-building and monitoring.

76. She explained that some respondents had not used the survey or narrative framework, but had instead submitted other documentation. Submissions had not always made it clear which actions had been taken after January 2018 and clarification had been sought. The data submitted via the survey therefore provided better comparability and facilitated the categorization of actions, allowing for some quantitative analysis.

77. The data from the stocktaking exercise had also been used for other outputs, including the online repository and interactive dashboard and the inventory of financial and technical sources.

78. A representative of the secretariat gave a short presentation on the online repository and interactive dashboard, which had been developed to enable access to the information submitted during the stocktaking exercise. The online repository platform (available at https://environmentassembly.unenvironment.org/stocktaking-online-repository) enabled the retrieval of information from the online survey and the narrative submissions through a variety of means, including a search function, an interactive map and customized filters. The interactive dashboard (available at https://environmentassembly.unenvironment.org/stocktaking-dashboard) provided the possibility of generating visual representations of the results of the online survey at various levels and their subsequent download.

79. In the ensuing discussion, several representatives, including two speaking on behalf of groups of countries, noted the predominance of measures taken at the national and subnational levels and of downstream action. They stressed the need for a holistic, coordinated approach that focused on upstream action, dealt with the entire plastic life cycle and promoted circularity.

80. Several representatives, including two representatives speaking on behalf of groups of countries, expressed their support for a global agreement on plastic pollution. One said such an agreement would be helpful for countries for measures taken at the national level, while two others, including one speaking on behalf of a group of countries, stressed the importance of such an agreement for countries that were particularly affected by plastic pollution generated outside their borders. One representative, speaking on behalf of a group of countries, said, in reference to the update provided in the assessment under item 3, that there was sufficient knowledge available on the impact of plastics in the environment for immediate action to be taken on the basis of the precautionary principle.

81. Two representatives stressed that the choice of measures taken at the national level was the prerogative of individual countries. In that respect, one said that it was outside the mandate of the group to identify best practices and areas with the greatest transformative potential. Actions that were successful in one region might not be in another. Furthermore, the stocktaking was non-exhaustive and thus the identification of best practices was inappropriate. She urged the secretariat to use neutral language that was descriptive in nature. One representative from among the major groups and

stakeholders expressed concern at the lack of reported measures taken in the agricultural sector and in the textile and automotive industries.

82. Several representatives made proposals for additional measures to be taken towards the long-term elimination of discharges into the oceans to reduce marine plastic litter and microplastics. These included strengthened governance; the establishment of concrete targets and indicators; assistance to countries in establishing and implementing national action plans, through, for example, peer learning; the promotion of the plan-do-check-adjust cycle, also involving the private sector; improved coordination of reporting at different levels; improved coordination of bilateral financing and the use of innovative financing mechanisms, blended finance, blue bonds, public-private partnerships and plastic offset programmes; a focus also on microplastics; and technological innovation and the development of alternatives.

83. One representative welcomed the use by the secretariat of the template of the 2019 G20 report on actions against marine plastic litter in the stocktaking exercise. Several other representatives provided further information on the initiatives being undertaken in their countries.

84. With regard to the online repository, two representatives underlined the usefulness of the repository for decision-making, and others requested information about its future or suggested that it be kept up to date. Two representatives said that they would be interested in hearing from others about how they intended to use the platform. One representative said that the non-inclusion of the narrative submissions to the stocktaking exercise might lead to misrepresentation, as the actions of a large number of countries were not reflected. Another representative highlighted the work carried out by many non-governmental organizations across the world, much of which was not reflected on the platform. A third representative proposed the inclusion of an indicator in the dashboard that related to the concentration of microplastics, as there was no such indicator in Sustainable Development Goal 14.

85. The representative of the secretariat informed participants that the call for submissions had been open to all actors but that it would be possible to submit additional information through the survey for the repository until the end of December 2020, following which data would be checked and the online repository and dashboard updated in time for the fifth session of the United Nations Environment Assembly. In the longer term, the secretariat was exploring the possibility of maintaining it with support from and through the Global Partnership on Marine Litter and wished to maintain the online repository and dashboard, subject to the availability of funding. The tools would eventually feed into the digital platform.

86. Many representatives expressed concern that the majority of the actions reported in document UNEP/AHEG/4/2 were limited to downstream measures. One representative urged the ad hoc open-ended expert group to consider practical steps to promote preventative, upstream initiatives. Another representative said that upstream actions were often undertaken by non-governmental organizations and associations and such entities should be called on to raise public awareness around the life cycle of plastics, the importance of recycling and the nature of the plastic pollution problem. A third, expressing support for a focus on preventative approaches in line with the waste hierarchy, suggested that environmental education, eco-design, integrated waste management and the implementation of a circular economy approach were all key to preventing litter from reaching the oceans.

87. One representative described recent efforts by her country to work with the private sector to reduce plastic packaging, increase recycling rates and build a circular economy, which she undertook to also share through the platform.

88. Regarding the geographical scope of activities, a number of representatives, including from among the major groups of stakeholders, mentioned the low number of global actions. One representative said that the fact that most of the actions reported were national or subnational, rather than global, should come as no surprise, as many Governments took action on marine plastics litter and microplastics. That should not be seen as a reason to rebalance the geographical scope of activities.

89. With regard to the stocktaking exercise, one representative proposed that the secretariat use national reports on marine litter, which his country regularly produced, as a source. One representative from among the major groups and stakeholders urged all representatives to respond to secretariat requests for input and suggested that the stocktaking report was meant to provide a picture of actions being taken across the world and should not be used as the basis for selecting specific response options.

B. Identification of technical and financial resources or mechanisms (resolution 4/6, para. 7 (b))

90. In considering the sub-item, the ad hoc expert group had before it a report that identified technical and financial resources or mechanisms for supporting countries in addressing marine plastic litter and microplastics (UNEP/AHEG/4/3), which had been prepared by the secretariat at the request of the expert group. Further information and analysis were provided in document UNEP/AHEG/4/INF/7.

91. At the invitation of the Chair, a representative of the secretariat summarized the information set out in the report and the report's key findings with respect to, respectively, technical resources and mechanisms and financial resources and mechanisms.

92. With regard to technical resources and mechanisms, 138 technical resources and mechanisms had been reviewed, of which the largest share (25 per cent) were state-of-knowledge reports, including policy recommendations, and the majority (70 per cent) covered waste management. Key challenges and barriers identified included a mismatch between an increase in production and the use of plastics on the one hand and limited waste management infrastructure on the other, in particular in developing countries and rural and remote areas; a paucity of local case studies addressing waste management and marine plastic litter in an integrated way by combining upstream and downstream measures; and a lack of technical resources on new business models or alternative distribution systems, for instance to reduce overpackaging, or to prioritize along the "3Rs waste hierarchy" (reduce, reuse, recycle) in industry design and consumption systems. Other key challenges included the need for global standards for national monitoring and reporting on the consumption, use, final treatment and trade of plastics and for better knowledge around best available techniques and best environmental practices to address marine plastic litter and microplastics and to better address cultural barriers to behavioural change. Detailed data were also needed on the trajectory of plastic waste, from its generation to the moment it reached the marine environment, including on the fate of plastics in rivers and lakes, and on the role of littering, uncontrolled dumping and release from disposal sites.

93. With regard to financial resources and mechanisms, a non-exhaustive list of 74 such resources and mechanisms had been identified, including multilateral, bilateral, private for-profit and private non-profit sources. Most of the funds (69 per cent) targeted the Asia-Pacific region, and 50 out of the 74 resources and mechanisms identified focused on waste management. Public funds constituted more than 60 per cent of the funding for marine plastic litter and microplastics. The current lack of private investments could be the result of a lack of incentives by investors, including a perception of high risk and a lack of viable business models. Resources that Member States and others might wish to consider included leveraging public funds to prepare companies and projects for private investment; using blended finance to make investments more attractive and less risky for the private sector; removing perverse incentives that allowed new plastics to remain a cheaper source of raw materials than recycled plastics; enhancing inclusive financing by funding community-based organizations, indigenous communities and women's groups working on tackling marine plastic litter and microplastics; increasing financial resources for strategic initiatives to remove the most damaging plastic types from the economy and bring about a circular approach for others; and addressing funding gaps for sectors such as the textile and agriculture sectors. In addition, the report outlined a number of innovative financing opportunities, including joint public-private initiatives, blended finance, impact investments and blue bonds.

94. In the ensuing discussion, representatives thanked the secretariat for the information provided. One reprensentative said that information on technical and financial resources and mechanism gathered through this work should be made available for stakeholders. Many representatives said that there was a need to place greater emphasis on upstream measures in order to prevent waste generation, with two suggesting that some of the resources focused on downstream activities should be reoriented to finance upstream measures. One representative said that previous reports had indicated that up to 80 per cent of the environmental footprint of plastics was determined at the design stage, so the disproportionate allocation of funds for downstream activities demonstrated the clear need for a global agreement on coordination and resources. One representative of major groups and stakeholders said that there should not even be a false symmetry between upstream and downstream measures, given that waste prevention was accorded the highest priority under the "3Rs" (reduce, reuse, recycle) approach.

95. One representative, speaking on behalf of a group of countries, said that prevention seemed to be the most cost-effective option to tackle marine plastic pollution, and suggested that there was a need to specify criteria to determine costs and assess resource needs in the report. He also urged greater emphasis in the report's summary on financial mechanisms to internalize the costs of plastic pollution, including extended producer responsibility and polluter pays mechanisms, as well as taxes, levies and fines, which could support upstream measures. While there was no one-size-fits-all

solution, a global system could help build the capacities of countries and develop a toolkit of best environmental practices and best available techniques that countries could use and tailor to their own needs.

96. One representative suggested that there was a need to accelerate sustainable design and prepare the ground for the development and implementation of common, global design standards, which he said would only be developed under a legally binding global treaty. He further suggested that, moving forward, the private companies that had used and benefitted from subsidies for plastic materials must be more engaged and invest more resources in tackling plastic pollution. Another representative said that the report included very limited information from the private sector, which made it difficult to assess how many financial resources were actually devoted to addressing upstream issues.

97. One representative expressed the view that each country should be free to decide which actions they would undertake to tackle plastic pollution and urged the secretariat to avoid any sort of prescriptive language in the inventory, including the placing of emphasis on any particular activity described therein.

98. With regard to financial resources and mechanisms, one representative said that any international instrument developed to tackle marine plastics litter and microplastics must take into account the different realities of different countries and set up a fund to enable countries to access the resources they needed to implement activities and prevent plastic waste generation. It was also critical to focus on early environmental education to ensure that human beings in all corners of the world were aware of the problem, bearing in mind that a large part of the world's population had no access to education, and many were illiterate. Another representative said that any financial mechanism should support capacity-building, institutional strengthening and pilot projects.

99. Drawing attention to specific sections of the report, one representative expressed support for the view contained therein that there was a need to increase gender considerations in addressing plastic pollution, suggesting that the Global Plastic Action Partnership should have been cited as an example of a financial initiative that embraced a gender-mainstreaming approach to addressing plastic pollution.

100. One representative of the major groups and stakeholders expressed concern about the identification of plastic offset programmes as an innovative financing opportunity, since there was no information on what such programmes would entail. Another representative, also from among the major groups and stakeholders, said that clear environmental criteria should be included in the report in order to ensure that proposed solutions did not merely displace the plastic pollution problem with another environmental issue. For instance, she said, the environmental impacts of waste-to-energy incineration could put countries at odds with their obligations under the international agreements on persistent organic pollutants and climate change.

101. On the issue of technical resources and mechanisms, one representative said that it was important to understand the distribution and accumulation of plastic litter and microplastics in rivers and oceans, and drew attention to an initiative launched by his Government to map microplastic ocean pollution with cooperation from other G20 countries. Another representative said that any proposed technical resources should focus on the life cycle management of plastics under a circular economy model, extended producer responsibility and labelling schemes, and the generation of scientific knowledge to strengthen international cooperation.

102. One representative drew attention to his country's efforts to address financial and technical challenges through extended producer responsibility mechanisms and the signing of agreements with the private sector to improve waste collection and recycling rates.

C. Encouragement of partnerships that undertake activities in relation to the prevention of marine litter (resolution 4/6, para. 7 (c))

103. Introducing the sub-item, the representative of the secretariat drew attention to the information set out in document UNEP/AHEG/4/INF/8, which identified 18 partnership case studies from narrative submissions and online survey data. Non-governmental organizations and Governments were the most frequent partners, and public bodies were the most frequent type of entity taking responsibility for various actions.

104. In the ensuing discussion, several representatives emphasized the importance of international cooperation and partnerships, as well as synergies between partnerships, to tackle marine litter and microplastics. A number of representatives drew attention to specific partnerships and activities that had not been included in the document, with one suggesting that the partnerships selected as case studies were too heavily focused on downstream responses to marine litter and stressing that there were examples of partnerships that took a holistic approach to plastic pollution. A representative from

among the major groups and stakeholders drew attention to a number of public-private partnerships in which industry had engaged.

105. One representative suggested that it would be useful to create international working groups on specific issues to find solutions to specific problems, such as the use of artificial intelligence to monitor the degradation of marine plastic litter.

D. Analysis of the effectiveness of existing and potential response options and activities (resolution 4/6, para. 7 (d))

106. The Vice-Chair, introducing the agenda item, drew attention to the information set out in documents UNEP/AHEG/4/4 and UNEP/AHEG/4/INF/9 and to the ad hoc open-ended expert group's mandate to analyse the effectiveness of existing and potential response options and activities with regard to marine litter and microplastics, as set out in paragraph 7 (d) of resolution 4/6.

107. A representative of the secretariat provided an overview of the methodology used to identify response options, including related archetypes, barriers and enabling conditions. She said that pilot studies had been conducted with a view to applying a revised methodology to assess the options. Key considerations that had shaped the revised methodology were the need to refrain from comparing response options, to build on the previous work of the ad hoc open-ended expert group and to maintain simplicity by consolidating the pressures corresponding to each life cycle phase.

108. The input indicators that had been considered included life cycle phases, environmental zones, geographic range and scale. The process indicators that had been considered included management and operational targets, whether the process was quantitative and how many plastic life cycle phases it covered. Other factors included the maturity of the approach and its feasibility, time frame and impact.

109. Eight existing and potential response options had been considered. The first option (potential) was a strengthened international framework, which would apply to all the life cycle phases of plastic, all environmental zones and geographic ranges, and would rank as high in terms of its scale. It had been evaluated, in terms of its input indicators, as having high maturity, medium feasibility, a long time frame and high impact. In terms of process indicators, a strengthened international framework would currently have no overarching management target beyond the mandate provided in Environment Assembly resolution 3/7, although some of its operational targets would already have been set in existing multilateral environmental agreements. Its process indicators were not quantitative, nor did they cover all the life cycle phases of plastic.

110. The second response option (potential) was the creation of global design standards that would apply to all the life cycle phases of plastic and all environmental zones and geographic ranges, and would rank as medium to high in terms of its scale. With regard to the process for such an approach, no management or operational targets existed, although some industry commitments could be adopted as operational targets. The maturity of the approach was low, as it was not well established. Its feasibility was judged as medium, its time frame as medium to long, and its impact, high.

111. The third response option (potential), a new international framework, would apply to all the life cycle phases of plastic and all environmental zones and geographic ranges, and would rank as high in terms of its scale. The relevant management target was set out in Environment Assembly resolution 3/7 and operational targets would need to be developed across the life cycle of plastics. The maturity of the approach was low, its feasibility, medium, and its time frame medium to long, as it was deemed that a voluntary framework could be operational in less than five years, but a binding framework requiring negotiation could take upwards of three years of preparation before depending on entry into force. However, its global impact would be high and it could address most pressures and barriers to solving the issue of marine plastic and microplastics.

112. The fourth option (potential) put forward was that of strengthened regional frameworks. Its input indicators included the capacity to address upstream measures, and it would apply in marine and freshwater environmental zones and in coastal maritime and some urban geographic areas, on a high scale. In terms of process indicators, some qualitative management and operational targets for such a framework existed, and existing process indicators were not specific to marine litter and microplastics. The maturity and feasibility of the option were high, its time frame was long, and its impact was high.

113. The fifth response option (existing), regional marine litter action plans, would apply, in terms of its input indicators, to the end-of-life phase and monitoring of plastic litter; in marine and some freshwater environmental zones; in coastal, marine and urban geographic areas; and at a high scale. Regarding the process indicators, limited high-level management targets existed for marine litter, and many operational targets, some of which applied to microplastics, were inferred. The targets of recent regional action plans and marine litter action plans might be difficult to achieve, and it would be necessary to increase the coverage, under such an approach, for the various life cycle phases of plastics. Maturity, feasibility and impact were all judged to be high, while the time frame for the

implementation of such a response option was long, as some regional marine litter action plans had no time frame and others had only set timelines for certain activities.

114. Response option six (existing) was national marine litter action plans. Like regional marine litter action plans, it would apply, in terms of its input indicators, mostly to the end-of-life phase and monitoring of plastic litter; in freshwater and marine environmental zones; and across most geographic ranges, but on a smaller scale. Regarding its process indicators, there were few management targets for the overall reduction of marine litter and only some operational targets had been set. The maturity, feasibility and time frame of such an approach were medium, and its impact, high.

115. Response option seven (existing) consisted of strengthened solid waste management using regulatory and market-based instruments. It applied to all the life cycle phases, predominantly targeted land and freshwater for protection, took effect in all terrestrial and coastal geographic ranges and on a small scale. Its process indicators included management targets for overall recycling rates and for the phase-out of some plastics, with some operational targets for specific product return, recycling or reuse. The approach did not cover all the life cycle phases of plastic or a wide range of types of plastics but could be expanded to include rate of repair and reuse. The approach was characterized by high maturity, medium feasibility, a medium to long time frame and high impact.

116. The eighth response option (potential), a national strategy to prevent microplastics, applied to all the life cycle phases of plastic, mainly targeting marine and freshwater environmental zones for protection and with growing recognition of soil and air, and across all terrestrial and some marine geographic ranges. The scale was small, no management targets had been set, few operational targets existed, and the approach was mostly limited to plastic pellets and microbeads. Its maturity was low, its feasibility medium, its time frame medium to long, and its impact, high.

117. In the ensuing discussion, several representatives, one speaking on behalf of a group of countries and one from among major groups and stakeholders, emphasized the need to use time effectively during the remainder of the current meeting to achieve the mandate of the ad hoc open-ended expert group. In light of the delays caused by technical difficulties during the meeting and the fact that the effectiveness analysis had been discussed by the ad hoc open-ended expert group at its third meeting, a number of representatives suggested that comments on the present item be submitted in writing to enable representatives to consider their content more effectively, given that consideration of those submissions was the focus of the next item on the agenda.[1] One representative said that any further assessment of response options would lead to further delays in achieving the group's mandate, and another representative, speaking on behalf of a group of countries, said that enough data was available and the group needed to chart a way forward by building on the findings of existing studies.

118. One representative said that the effectiveness analysis included items related both to frameworks and to activities based on the plastics life cycle and recommended keeping the two aspects separate for clearer understanding. He further suggested that an objective understanding of each response option should be the focus of consideration rather than simply comparing its effectiveness, which should not be prejudged, given that in many circumstances, effectiveness would follow once key challenges were properly addressed. Another representative said that the ad hoc open-ended expert group should refrain from presenting predetermined outcomes in the analysis and that the language used should remain neutral and avoid policy prescriptivism. Two representatives noted that some of the terminology used in the effectiveness analysis should be better defined.

119. Regarding the option of strengthening the existing international framework, several representatives noted that it was important to analyse and include voluntary efforts in that option, such as the G20 Implementation Framework, the Ocean Plastics Charter and the Global Plastic Action Partnership. One representative said that a global framework would be needed to make progress together and would allow national and regional initiatives to be more effective when aligned with all other initiatives. One representative said that strengthening existing international framework could include the increase of participating countries, international organizations and private sectors and expansion of its function.

120. Many representatives stressed the need for the options to incorporate the flexibility that would enable the varying circumstances of each country to be addressed, including in the strengthening of solid waste management using regulatory and market-based instruments. One representative noted that some of the potential response options, such as design standards or regulatory and market-based instruments, might more appropriately be considered as elements of other, broader response options rather than as standalone initiatives.

121. Several representatives noted that it would be counterproductive to focus on only one response option, given that the options were not mutually exclusive and that many could complement each other

[1] The written submissions are available at https://papersmart.unon.org/resolution/fourth-aheg-submissions.

or operate in tandem. One representative, speaking on behalf of a group of countries, said that the highest degree of effectiveness could only be achieved if all the options were combined vertically and horizontally. Existing options were clearly failing, and global coordination, adapted to local realities, but with shared objectives, could remedy gaps in current frameworks at different levels.

122. One representative from among the major groups and stakeholders expressed concern that the analysis did not assess to what degree the response options were contributing to eliminating plastic discharge into the ocean. The concern for the maturity of a given option might be misplaced, given the drastically increasing rate at which plastics were flowing into the oceans and the inability, to date, of so-called mature instruments to halt their flow. Noting that treaties could sometimes be implemented quickly, he stressed that it was time for novel and pioneering ideas, such as a binding global treaty, and cautioned against allowing yet another Environment Assembly cycle to pass by without decisive action being taken to combat the proliferation of marine plastic litter and microplastics.

123. Another representative from among the major groups and stakeholders noted with concern that indigenous voices were not represented in the inputs for the report. Indigenous traditional knowledge held great potential for providing data to monitor plastic pollution as well as solutions to address its impacts. Documents should not be seen as a proxy for indigenous voices. It was important for indigenous rights to be considered in determining the way forward and she called for the inclusion of indigenous perspectives in the outcome document of the group.

124. Many representatives, including one speaking on behalf of a group of countries, expressed concern at the ability of national frameworks, even if strengthened, to address upstream issues, in particular unsustainable plastic production and consumption. One representative stressed the need to attack the problem at its source, which would require behavioural change. In that regard, developing countries would require enhanced support through technical and financial resources and mechanisms. One representative said that it was clear, in the light of the limited success of national initiatives implemented in her country, including promoting recycling, improving waste management and conducting public education campaigns, that a global response, which was based on circularity and addressing all phases of the life cycle of plastics, was required. One representative also said that a number of national action plans are actively addressing significant pressures and barriers across all actors within the plastic life cycle.

125. One representative said that the effectiveness of the response options was critical to achieving the step change needed to meet the scale of the challenge. Although the response options were not mutually exclusive, the international community essentially faced a choice between making a concerted effort to introduce ambitious changes to existing agreements on the one hand and adopting a new global agreement on the other. The analysis of the effectiveness of response options should clearly identify whether options were likely to fall short of target 14.1 of the Sustainable Development Goals.

126. One representative said that her country strongly supported the development of a new global framework to plug existing gaps and the matter should be discussed at the fifth session of the United Nations Environment Assembly, where all the stakeholders, including those from the private sector, could provide valuable input.

127. Two representatives provided overviews of the plastic pollution challenges faced by their countries and of the measures being taken to address them, with one calling for the identification of best practices with regard to marine litter and microplastics, the provision of technical and financial support, and the establishment of standards and indicators. The other stressed the need for global transboundary action and said that it was difficult to place a monetary value on the various response options, particularly when factoring in environmental, social and economic costs. In some of the least developed countries, alternatives to plastics had proved to be prohibitively expensive.

128. Responding to a question regarding how the results of the stocktaking exercise would be used to promote plastic waste management, a representative of the secretariat said that the results had been taken into consideration in the analysis of the effectiveness of response options.

V. Consideration of submissions on potential response options pursuant to paragraph 10 (d) of United Nations Environment Assembly resolution 3/7 on marine litter and microplastics

129. Under item 5, presentations on potential response options were delivered by the representatives of Norway, Japan, The Pew Charitable Trusts, the Ellen MacArthur Foundation, the secretariat, the Centre for International Environmental Law and the Global Partnership on Marine Litter.

130. In her presentation, the representative of Norway, speaking on behalf of the Nordic Council of Ministers, said that, on 19 October 2020, the Council had published a report entitled "Possible elements of a new global agreement to prevent plastic pollution". On 28 October, the ministers had underlined that a new agreement must: (a) go beyond closing the gaps in the current international framework; (b) provide mechanisms to engage Governments and the private sector across the life cycle of plastics; (c) promote a circular economy and sustainable consumption and production of plastic products; and (d) include a system to monitor progress towards a common goal. In the report, it was argued that, in order to be effective, a new agreement had to target upstream preventive measures and address the full life cycle of plastics, including the design of plastic products. The report suggested three core commitments for parties to a new agreement: (a) draw up national plastics management plans, with flexibility in setting targets, identifying measures and mobilizing resources; (b) develop and agree on international sustainability criteria (environmental performance criteria), which could be outlined in the text of the agreement; and (c) develop and implement national plastics sustainability standards to give effect to the criteria at the national level. The standards could be operationalized through the regulation of domestic markets and the development of context-sensitive, market-based instruments to promote behaviour change among industry stakeholders and consumers. The report proposed an agreement that could progress over time and that took a hybrid approach, with both voluntary and legally binding features. In short, the core approach of the proposed new agreement was to prevent plastic pollution by providing tools to assist countries in managing their national plastics policies and markets. Additional information on the report could be found at https://www.nordicreport2020.com/.

131. In his presentation, the representative of Japan said that the Osaka Blue Ocean Vision, which had been adopted at the 2019 Group of 20 summit in Osaka, Japan, with the aim of reducing additional pollution by marine plastic litter to zero by 2050 through a comprehensive life cycle approach, had been shared by 86 countries and regions as at November 2020. To achieve the Vision, the G20 Implementation Framework for Actions on Marine Plastic Litter had been established. The Framework made it easier to share and update information on relevant policies, plans and measures for peer-learning purposes, and promoted international cooperation and the gathering of scientific knowledge. International organizations had contributed to the Framework, including by developing waste management capacities, investing in a circular economy and promoting sustainable alternatives to plastics. The Group of 20 members and other participating countries and institutions provided annual updates on the actions they had taken to eliminate marine plastic litter using a standardized reporting format. Challenges highlighted by the countries included harmonizing monitoring methodologies for microplastics, providing financial support to local authorities and improving waste management. Under the Framework, Japan, the European Union and the United States had agreed to assume leading roles in generating scientific knowledge and innovative solutions. Tasked with harmonizing monitoring and data compilation, Japan had organized a workshop and proposed global monitoring data sharing projects. Bearing in mind the numerous features in common, fostering collaboration in the application of the two instruments could be an effective response option that would facilitate the implementation of national and regional measures against marine plastic litter.

132. In her presentation, the representative of The Pew Charitable Trusts said that her organization had conducted a modelling analysis entitled "Breaking the plastic wave" in partnership with Systemiq, the universities of Oxford and Leeds, the Ellen MacArthur Foundation, Common Seas and a panel of 17 experts. The analysis had found that, under a business-as-usual scenario, plastic pollution would soon become unmanageable, with the amount of plastic waste in the oceans quadrupling by 2040. Existing commitments by Governments and businesses would achieve only a 7 per cent improvement on the business-as-usual projections for 2040. The analysis had also shown that single-solution strategies that focused on one part of the plastics life cycle would, at the very best, maintain leakage rates at their current levels, and that the only way to bend the plastic pollution curve by 2040 was to adopt ambitious pre-consumer and post-consumer approaches under a system change scenario comprising four broad categories of actions focused on reduction, substitution, recycling and disposal. Although they would not eliminate all residual plastic waste, measures taken across the life cycle of plastics could help to meet the needs of a growing global population while bringing about an 11 per cent decrease in virgin plastic by 2040, provided that there was a reduction in the planned growth of plastic production. The system change scenario was the optimal pathway environmentally, economically and socially. Governments could save about $70 billion compared to "business as usual", while dramatically cutting plastic pollution rates, reducing projected greenhouse gas emissions and creating jobs. However, the necessary shift from incremental to systemic change was urgent: delaying action by five years could increase plastic pollution in the oceans by around 80 million metric tons.

133. In his presentation, the representative of the Ellen MacArthur Foundation said that the Foundation, together with the World Wildlife Fund for Nature and the Boston Consulting Group, had recently published a report entitled *The Business Case for a UN Treaty on Plastic Pollution*.

According to the report, voluntary initiatives were multiplying and played an important role in combating plastic pollution, but would be unsuccessful unless backed up by a larger, systemic effort. That conclusion was corroborated by the most recent data from the New Plastics Economy Global Commitment, an initiative led by the Foundation that had garnered the participation of more than 250 businesses across all stages of the plastic packaging value chain that were responsible for over 20 per cent of all plastic packaging used globally. The report identified several challenges in the transition to a circular economy for plastics, including missing data on material and waste streams, regulations that did not yet target the main drivers of plastic pollution and a lack of targeted interventions that tackled the whole value chain and life cycle of plastics.

134. When asked about the impact that a United Nations treaty on plastic pollution might have, stakeholders from the private sector had listed, as possible benefits, improved policy coordination and coherence, reduced operational complexity and compliance risks across markets, clearer targets and more coordinated action plans to promote a circular economy for plastics, common reporting metrics and methodologies established across and along value chains and, most importantly, additional investment in key infrastructure and innovations geared towards ensuring a circular economy for plastics. Companies would benefit, in particular, from dedicated, effective and stable funding mechanisms, for instance for waste collection and sorting.

135. The stakeholders had indicated that a new United Nations treaty could complement and build on existing initiatives, which could in turn inform further discussions on how key elements of the treaty could be designed. The elements identified as being of most relevance from a business perspective could be structured around four main pillars: definitions, policies, reporting, and support for implementation. Following the release of the report, 30 major global companies had published a business manifesto calling for a United Nations treaty on plastic pollution that supported and leveraged the actions they were already taking at the corporate level.

136. The representative of Canada also provided a brief overview of the Ocean Plastics Charter. He said that it was the only global framework that took a comprehensive approach to addressing marine plastic pollution by encouraging ambitious action and cooperation by Governments, businesses and organizations. In endorsing the Charter, partners committed to ensuring that plastics were designed for reuse and recycling, and to a more resource-efficient, life cycle approach to plastic stewardship on land and at sea. The Charter provides quantitative and time-bound targets that serve as ambitious guidelines to support the achievement of its broader objectives, as well as Sustainable Development Goals 12 and 14. The Charter had so far been endorsed by 26 Governments and 70 businesses and organizations.

137. The representative of the Centre for International Environmental Law, speaking on behalf of a coalition of non-governmental organizations and academic institutions comprising the Centre for International Environmental Law, the Environmental Investigation Agency, the Global Alliance for Incinerator Alternatives and Massey University, presented the group's proposal for a new global agreement to address plastic pollution. They were of the view that a new convention should be built on four pillars: monitoring and reporting (establishment of baselines, common methodology, reporting measures and possibly a scientific assessment panel); plastic pollution prevention (support for the development of related national action plans, infrastructure development, addressing virgin plastic production and the establishment of standards, including for safe design); coordination; and technical and financial support (ensuring that all Governments had access to the full range of support measures needed to implement the required activities). The group had also articulated a possible form that the treaty could take. A publication on the proposal, *Convention on Plastic Pollution: Toward a new global agreement to address plastic pollution*, was available in the six official languages of the United Nations.

138. The representative of the Secretariat said that the Global Partnership on Marine Litter ("the Partnership") had been established in response to calls by the United Nations Environment Assembly and others for more concerted multilayer global action to provide more cohesion to various efforts under way to address marine litter. It took a life cycle and source-to-sea approach and comprised, to date, more than 280 member entities and five regional nodes. Its digital platform facilitated ad hoc coordination through a matchmaking functionality, which would be complemented by the launch of action tracks to ensure more focused coordination. The Partnership aimed to keep up the momentum in efforts to address marine litter, bridge the gap between the two parts of the fifth session of the Environment Assembly in 2021 and 2022, respectively, and bring together actors in the lead-up to future events, such as the seventh International Marine Debris Conference in 2022.

139. The representative of the secretariat provided an overview of the information set out in document UNEP/AHEG/4/5, which outlined the range of views on response options submitted by members of the ad hoc open-ended expert group. She said that the order of presentation of the response options did not denote their relative importance and the document was aimed at facilitating discussion. She recalled that, as the group was not a negotiation forum, more than one response option

within any given grouping or heading could be considered for submission to the United Nations Environment Assembly at its fifth session.

140. She went on to enumerate the range of views expressed in relation to: international response options (relating to the vision; role of existing instruments; global standards and guidelines; nature of a relevant instrument; technological/technical responses; economic/financial responses; scientific, educational and informational responses; multi-stakeholder engagement, coordination and cooperation; and public–private partnerships); regional response options (relating to legal and policy responses; technological/technical responses; economic/financial responses; and scientific, educational and informational responses); and national response options (relating to legal and policy responses; technological/technical responses; economic/financial responses; and scientific, educational and informational responses).

141. In the ensuing discussion, several representatives, including one speaking on behalf of a group of countries, underlined that plastic pollution was a global problem that required a coordinated global response. Two representatives, including one speaking on behalf of a group of countries, expressed strong support for a global agreement to address the challenge. Within such an agreement, they stressed the importance of a shared vision, clearly defined goals, measurable targets, agreed definitions, common methodologies and harmonized reporting. The representative speaking on behalf of a group of countries proposed that global targets be translated into national reduction targets, in an equitable manner, based on the principle of common but differentiated responsibilities. Both representatives stressed the importance of national action plans for achieving the global target; the establishment of a scientific or knowledge-sharing mechanism or body; and financial and technical support for implementation. A number of representatives called for reflection on how to achieve that ambition and present a global framework for consideration by the United Nations Environment Assembly at its fifth session.

142. Two representatives stressed the importance of any response option being grounded in evidence and of the importance of generating scientific knowledge. Another representative, after outlining some of the initiatives undertaken in his country and region, said that recently published scientific research in his country had developed new methods for calculating volumes of marine litter and plastic pollution and that the results differed greatly from previous calculations. He expressed the hope that the findings would prove useful in enabling the international community to update its understanding of the problem to provide a solid foundation for future work.

143. Various representatives highlighted elements that they considered to be crucial in considering the response options, including the need to cover the entire life cycle of plastics; to focus on prevention; to involve innovation; to be mindful of national circumstances and gender considerations; to be inclusive, such as through a multi-stakeholder platform; to involve education and behavioural change; to be supported by a financial mechanism; to develop a globally harmonized monitoring method and a global scale leakage inventory; and to involve monitoring and evaluation to gauge progress, such as annual follow-up meetings of the G20 Implementation Framework.

144. Other suggestions for response options included ensuring the traceability of inputs by means of certification and stimulating competition to improve the availability of resources and reduce the time required for the implementation of measures.

145. Several representatives stressed that response options need not be mutually exclusive, while another highlighted that additional response options had been raised during previous discussions of the ad hoc open-ended expert group and that they too merited consideration. He emphasized the need to draw on existing initiatives to avoid duplication of efforts. Another representative highlighted some of the efforts being made to strengthen existing mechanisms, such as the amendment of the Basel Convention and the adoption of the G20 Implementation Framework which 1) shares the long-term vision, 2) facilitates national action by peer learning and coordination with international organizations, and 3) strengthens scientific knowledge. One representative drew attention to the St. John's Declaration adopted by the Caribbean Community in 2019, in which it had been emphasized that plastics and microplastics were a global issue and that global action was urgently needed to prevent further plastics pollution.

146. One representative from among the major groups and stakeholders said that a strong response to the issue of marine plastic litter and microplastics could not be achieved by sole means of a global treaty. Some countries, particularly in Africa, had made significant progress in the absence of such a treaty, and examples abounded of international treaties that had failed to solve the problems that they had been adopted to address. The path leading to a new global treaty was also full of pitfalls. First, negotiation processes were costly exercises. Second, they involved a lot of travel and therefore contributed to climate change. Third, acceptance by all the negotiating parties was not a given, and the withdrawal of a major actor could weaken the treaty. Fourth, the legally binding nature of the treaty was not guaranteed, particularly if the treaty was not accompanied by an effective enforcement

mechanism. It would be preferable to strengthen existing global mechanisms, such as SAICM. In that connection, he rejected the claim that the 55 member States of the African Union favoured a new global treaty. The official positions of the African region with regard to environmental matters were usually agreed upon at sessions of the African Ministerial Conference on the Environment (AMCEN). The most recent session of AMCEN had culminated in a statement that did not support any of the response options currently on the table.

147. Many representatives, including one speaking on behalf of a group of countries, said that existing efforts were not sufficient to tackle the urgent transboundary problem of marine litter and microplastics, and expressed support for the development of a new global agreement to address the issue, stressing that the status quo was not an option. Many representatives suggested that a new global agreement would complement, strengthen and help to accelerate national and regional measures, and should aim to close the gaps in existing instruments, with a particular focus on the upstream portion of the plastics life cycle, and help to streamline and coordinate efforts by all stakeholders to achieve the elimination and prevention of plastic waste and marine litter.

148. Many representatives, including one speaking on behalf of a group of countries, said that a decisive next step was needed. They suggested that, at its fifth session, the United Nations Environment Assembly should establish an intergovernmental negotiating committee to commence negotiations on a new global agreement on plastics.

149. Many representatives said that a new global agreement should be legally binding. Many others, including one speaking on behalf of a group of countries, suggested that it could contain both binding and voluntary commitments. One representative said that the feasibility and timeframe will possibly vary depending on its contents to be agreed upon and its structure (legally binding or voluntary). One representative said that voluntary efforts alone were not proportionate to the scale of the marine litter and microplastics crisis. Another suggested that specific elements or actions should be considered before discussing the legal nature or overall structure of the responses that would enable the implementation of such actions considering different context and countermeasures in each country, the need for multi-stakeholder engagement, and urgency of the issue despite limited scientific knowledge. One representative highlighted the challenges faced by his country in enforcing its national plastics legislation, offering to share his experience with others. He also illustrated how a ban in his country had displaced plastic bag manufacturers to other countries where no such ban existed, which, for him, was a reason to favour a global agreement.

150. One representative stressed that there was no one-size-fits-all solution to the problem of marine plastic litter and expressed support for practical and effective measures by all stakeholders and countries to reduce discharges of plastic litter to the ocean, prioritizing large-scale areas and major source countries. He said that a combination of responses at the regional, national and subnational levels was needed, which should promote enhanced action to improve capacities for the environmentally sound management of waste, promote innovative technological solutions, and ensure that life cycle assessments were conducted to understand the environmental impacts of alternative materials to plastics.

151. Another representative said that new and existing options could complement each other, and there was a need both to rethink how humans dealt with plastics across the entire plastics life cycle and to prevent the use of certain plastics. She suggested that products used only once that polluted for centuries were clearly not sustainable. Another representative suggested that a new global framework should include standards to enable Governments to determine whether plastics were sustainable, taking into account, for instance, whether the plastics were durable, reusable, recyclable and safe.

152. One representative said that marine plastic litter posed an existential crisis to Pacific small island developing States, which were highly dependent on healthy oceans and, despite strong Government actions to address the issue, continued to receive plastics through ocean currents or imported products. She called for a global legally binding agreement to tackle the issue and said that it would not be possible to reduce marine plastic litter unless the production of virgin plastics was substantially reduced.

153. Many specific elements to be included in both a new global agreement and existing framework were largely discussed.". Elements suggested by many representatives included a common vision and long-term objective to eliminate plastic waste and marine litter and promote circularity and a life cycle approach to plastics, covering all stages, but focused on prevention and upstream measures; harmonized monitoring and reporting requirements in order to track progress towards achieving common objectives, including through measurable and comparable indicators; national action plans developed by individual countries and tailored to their circumstances; mechanisms to support the implementation of such plans, including financial and technical resources and capacity-building, especially for developing countries; and the establishment of a scientific body to assess progress, strengthen the science-policy interface and guide policymaking at various levels.

154. Many representatives, including one speaking on behalf of a group of countries, proposed as upstream measures for a new global agreement: guidelines or specifications on product design and materials in order to increase recyclability and reparability and avoid harmful components and additives; awareness-raising; and extended producer responsibility, labelling and certification schemes.

155. Other elements suggested by representatives included global objectives for promoting a circular economy approach to plastics, and the development of circularity and waste-related guidelines and life cycle assessment methodologies; a reduction of production of virgin plastics; the banning or reduction of certain plastic products, including single-use plastics; the sharing of best practices along the waste hierarchy; and a coordination mechanism to align actions and activities and avoid duplication between instruments at all levels. One representative said that a new global agreement should encompass all marine litter sources and pathways to the ocean, focus on prevention, and ensure the active participation of all stakeholders, in particular industry.

156. One representative suggested that support provided to countries for the implementation of their national action plans would best be delivered through a new dedicated multilateral fund. Another representative said that regional bodies had a key role to play in helping to level the playing field within specific regions where the capacities of countries differed considerably. A third representative also pointed out the importance of interregional cooperation given the transboundary nature of the problem. One representative suggested that a future agreement should be guided by a number of key principles, including the precautionary principle, the polluter pays principle, and the principles of transparency, accountability, and common but differentiated responsibilities.

157. Several representatives drew attention to specific frameworks that could be expanded or strengthened and could serve to improve the coordination of actions at the global level, including the Ocean Plastics Charter, the G20 Osaka Blue Ocean Vision, and their respective implementation frameworks, which sought to prevent plastics from entering the ocean using peer learning, scientific knowledge, and a life cycle approach, the Global Partnership on Marine Litter, ASEAN and SAICM.

158. A number of representatives drew attention to different sections of document UNEP/AHEG/4/5 and the various options proposed therein. On the development of global standards and guidelines, provided as an option in the document, two representatives said that the development of such standards would require the involvement of the industries involved, as well as the careful consideration of national regulations on issues such as packaging, which could differ from country to country.

159. One representative from among the major groups and stakeholders said that the members of the World Plastics Council and the International Council of Chemical Associations strongly supported the development of a global framework to catalyse stakeholders' actions and scale up global efforts to prevent the discharge of plastic waste into the oceans and environment. She expressed support for the creation of a flexible, transparent governance model that included as key elements a clear vision and objective that built on the Osaka Blue Ocean Vision to achieve zero discharge of plastic waste into the marine environment by 2050; a framework enabling a circular economy for plastics and promoting innovation, including through sustainable design and the recycling of plastic waste into raw materials to minimize waste generation; common, transparent data collection methods and reporting requirements; the scaling up of existing efforts; and the scaling up and acceleration of financing to achieve circularity.

160. Several representatives from among the major groups and stakeholders expressed support for a global legally-binding agreement on marine litter and microplastics, and for a number of key elements, including a focus on waste prevention and upstream measures, a move toward circularity, the development of a common long-term vision, harmonized standards and reporting, One representative said that international efforts should be considered as a facilitator to help national actions perform effectively with more coordination as there is no "one-size fits all" solution for issues of marine plastic litter. another representatives said that education and access to reliable information could help to accelerate the necessary shift from a throwaway culture to a systems perspective that considered pollution in all stages of the plastics value chain.

VI. Preparations for the fifth session of the United Nations Environment Assembly

161. In considering the item, the ad hoc open-ended expert group had before it the zero draft of a summary prepared by the Chair with the support of the Bureau. Introducing the document, the Chair said that it sought to cover all the work carried out by the ad hoc open-ended expert group in the exercise of the mandates given to it by the United Nations Environment Assembly in its resolutions 3/7 and 4/6. Once finalized, it would be annexed to the relevant report of the Executive Director of

UNEP to be submitted for consideration by the United Nations Environment Assembly at its fifth session. Recalling that discussion by the group of the draft was not a formal negotiation, he gave an overview of the content of the summary, which included a review of the current situation, a summary of potential national, regional and international response options and a number of proposals for future work.

162. In the ensuing discussion, several representatives expressed appreciation for the efforts that had been put into producing the draft Chair's summary, with two saying that it did a good job of capturing the views conveyed during the meetings held by the ad hoc open-ended expert group, and two others calling for it to be finalized in close cooperation with the Bureau, whose members represented different regions of the world.

163. Many representatives emphasized that the Chair's summary must reflect all views and be neutral, concise and objective, while a number of representatives noted that neutrality would be achieved by reflecting both majority and divergent views as well as how those views had evolved since the first meeting of the group. Two representatives expressed concern that any failure to objectively reflect the tenor of the group's work could lead to the need to repeat it, and one representative emphasized that an objective record of all views expressed would be crucial to inform the policy discussions to be held at the fifth session of the United Nations Environment Assembly.

164. Many representatives, including several from among the major groups and stakeholders, said that the document failed, in the section on potential national, regional and international response options, to reflect a majority of opinion among the experts on the need for a new global agreement to tackle plastic pollution. Many representatives noted that the Member State and expert representatives who had expressed the need for a global, legally binding agreement, several of whom had spoken on behalf of groups of countries, represented an overwhelming majority. One representative said that if the strong support for a global, legally binding agreement were not clearly reflected in the Chair's summary, the group would have failed to implement its mandate, and another said that failing to reflect that support would be a grave omission. Two representatives said that the group should not make a specific recommendation for any of the options, and one representative said that her country did not support the option of a global agreement.

165. One representative said that the draft needed to reflect that momentum was growing behind such an agreement, including in the private sector, while two others proposed that the treatment afforded to each response option in the draft should be based on the number of representatives who had spoken in favour of it. One representative noted that the scale of the plastic pollution problem now rivalled that of climate change and the biodiversity crisis, both also global problems that were therefore best addressed through binding global agreements. Another representative requested that the summary reflect the scale of the challenge, which had increased owing to COVID-19, and suggested in that regard that the group should continue its intersessional work, in particular in the light of the division of the fifth session of the Environment Assembly into two sessions, the first to be held in February 2021 and the second in February 2022.

166. Several representatives noted that there was clear support for the group to recommend the establishment, at the fifth session of the Environment Assembly, of an intergovernmental negotiating committee for a global agreement. In that connection, two representatives proposed that the draft should detail how each of the response options might be pursued, and two representatives said that a comparative analysis of the points in favour of and against each option should be provided and one representative said that an intergovernmental negotiating committee should be mentioned as one of the options of new global agreement. A number of representatives said that working towards a new global treaty did not exclude other response options. Several representatives noted that a number of response options could and should be carried out in parallel and that the global agreement should serve to bridge existing gaps. A number of representatives stressed the importance of having a holistic, life cycle, circular economy approach at the centre of any response, and one representative said that Governments should take action to halt the production of non-essential plastic. Two representatives further noted that reducing global plastic production was the only hope to reduce global plastic pollution. One representative said that there was a need to phase out single-use plastic products altogether, while another said that the issue of freshwater plastics pollution should not be neglected.

167. A number of representatives made specific suggestions on how the draft Chair's summary could be improved. One said that the document should reflect the outcome of the stocktaking exercise undertaken pursuant to paragraph 7 (a) of Environment Assembly resolution 4/6, in which it had been concluded that existing activities to reduce marine plastic litter and microplastics were predominantly national or subnational and outreach-related, and that legislative actions continued to focus on downstream solutions rather than prevention.

168. Two representatives, one speaking on behalf of a group of countries, called for a distinction to be drawn in the draft between the functions of potential response options and the form that those

options might take. Another representative said that, in the section on potential national, regional and international response options, advancing and strengthening existing initiatives, including voluntary ones, should be included among the options for enhanced coordination and governance. In the section containing proposals for future work, the list of proposals was not exhaustive, and reference should be made to the goals of the Ocean Plastics Charter.

169. One representative said that the section should reflect the widespread support that the experts had shown for certain proposals, namely: (a) setting a new long-term vision for the elimination of plastics from the environment, or sharing an existing one, together with relevant objectives; (b) developing national action plans that covered the entire life cycle of plastics, including sourcing and sustainable production and consumption; (c) developing arrangements for capacity-building and the provision of financial and technical assistance; (d) strengthening the monitoring and reporting of national measures to generate information on global progress; and (e) establishing a long-term science-policy interface. She also suggested that the two structural response options – strengthening existing frameworks and developing a new global agreement – should be the subject of separate paragraphs.

170. One representative said that timescales should be established for the different response options, some of which required more urgent action than others. In that regard, it might be helpful to formulate a comprehensive management strategy for the implementation of the options. Moreover, emphasis should be placed on the need for measures that favoured vulnerable groups, including indigenous peoples.

171. One representative said that reference should be made in the draft to financial and technological barriers, which were particularly formidable for many African States, and to the desirability of establishing an international scientific advisory panel whose composition achieved a geographic and gender balance.

172. Two representatives asked for clarification on how the report of the second meeting of the ad hoc open-ended expert group on marine litter and microplastics (UNEP/AHEG/2018/2/5) had been agreed upon.

173. In response, a representative of the secretariat said that the process that had led to the approval of the report was described in paragraphs 48, 51 and 54 thereof, and that the document was based on drafts produced by the co-chairs of the meeting with support from the secretariat.

174. Subsequently, the Chair introduced a revised version of the draft summary incorporating the comments made during the discussion. Linguistic and organizational amendments had been made to improve the clarity of the text and more detail had been provided where required. Three paragraphs had been added on potential activities during the intersessional period leading to the second part of the fifth session of the Environment Assembly, in February 2022, as had a pledge by the Executive Director to continue to support the group.

175. All the representatives who took the floor thanked the Chair, the Bureau and the secretariat for the revised summary, with many acknowledging that it had not been an easy task to update the document to reflect the array of views expressed.

176. Many representatives said that they were prepared to accept the revised summary as presented, although some mentioned that they were doing so in the spirit of compromise. Some representatives made proposals to the chair for additional amendments, including that the word "potential" appear before "response options" throughout the text; that the difference in the level of detail about each response option be less marked; that, whenever it was mentioned that an option could be legally binding, the non-binding option also be mentioned; that it be made clear that the lists of options were not exhaustive; and that further clarification be provided on the nature of the process to ensure that work undertaken to date remained current and updated for the purposes of the second part of the fifth session of the Environment Assembly.

177. One representative expressed concern that the reference to work remaining "current and updated" prejudged the process of preparing for the fifth session of the Environment Assembly, which fell within the mandate of the Committee of Permanent Representatives. Furthermore, he expressed surprise that the Committee had not been mentioned in relation to a potential negotiating process for a new global agreement. He sought clarification regarding the legal ramifications of the process to update the work undertaken mentioned in the summary.

178. Several representatives, including two speaking on behalf of groups of countries, expressed disappointment that the summary mentioned that "numerous participants" supported the option of a new global agreement; in their view, it was the majority. One representative, speaking on behalf of a group of countries, stressed that it was important to show the Environment Assembly how the views of experts in the group had evolved to converge in support of a new global agreement. Another

representative said that she would have liked the group to recommend to the Environment Assembly the establishment of a negotiating committee.

179. Several representatives made requests for the inclusion of additional points relating to a new global agreement, including a common vision; global and national reduction targets; the capacity to facilitate national and regional action plans; harmonized reporting obligations, with common definitions, formats, and deadlines, which would need to go hand in hand with harmonized monitoring obligations; design and labelling standards; controls on plastic production and the phasing out of avoidable plastic products; geographical and gender balance in the membership of any international scientific advisory panel; and financial mechanisms and technical support for implementation. It was also suggested that there was a need to work according to a variety of time frames, as short- and medium-term steps could be taken at the same time as work continued with a view to the long-term elimination of the discharge of plastics into the oceans; and a need to recognize the contributions of indigenous peoples to the evidence base provided.

180. One representative, requesting that his remarks be included in the present report, asked for clarification on how to interpret paragraph 24 of the revised Chair's summary, given that it expressed appreciation by the ad hoc expert group for the willingness of the Executive Director of UNEP, upon request, to organize informal preparatory consultations to support the preparations for the second part of the fifth session of the Environment Assembly. He noted that the paragraph should be read in conjunction with the rules of procedure of the United Nations Environment Assembly and relevant decisions of the governing body of UNEP, avoiding encroachment on the competencies of the Committee of Permanent Representatives to UNEP, the body entrusted with the preparation of sessions of the Environment Assembly, and highlighted that the acceptance of the Chair's summary was dependent on that understanding.

181. The representative of the secretariat said that the Committee of Permanent Representatives to UNEP was responsible for preparing the sessions of the Environment Assembly and regularly reviewing the implementation of Environment Assembly resolutions and decisions. The Committee was composed of all the permanent representatives accredited to UNEP and had been formally established in May 1985 as a subsidiary organ of the governing body of UNEP.

182. The Chair thanked representatives for their comments on the revised version of the Chair's summary and said that substantive comments on the summary would be reflected in the report of the present meeting, to which the summary would be annexed. The ad hoc expert group adopted the Chair's summary as amended. The Chair's summary is set out in the annex to the present report.

183. The Executive Director of UNEP delivered a statement in which she expressed her appreciation to the ad hoc open-ended expert group for its work and to the Chair for his tireless efforts and strong leadership. She said that there was considerable global support for and interest in that work, which formed part of a raft of actions being undertaken worldwide, including through regional seas programmes, multilateral environmental agreements and the measures being adopted by individual Member States. In its draft medium-term strategy for the period 2022–2025, UNEP had identified pollution and waste as one of three key action areas, reflecting the importance that the Programme accorded to the issue of marine litter, which knew no boundaries and could thus be addressed only through national, regional and international collaboration. Urgent measures were needed across the entire life cycle of plastics to promote sustainable consumption and production, environmentally sound waste management and infrastructure improvements. UNEP stood ready to support the ad hoc open-ended expert group as it strove to achieve the progress that was essential for the successful implementation of the 2030 Agenda for Sustainable Development. The fifth session of the United Nations Environment Assembly, for which UNEP had ambitious plans, was expected to be held in two parts, with the first taking place entirely online in February 2021 and being devoted to procedural matters, including the adoption of a workplan and budget for UNEP. With the expert group approaching the end of its mandate, UNEP intended to build on the momentum generated by its work, including by leveraging the Global Partnership on Marine Litter to engage the international community, enhance the analysis of technical information and establish a digital, multi-stakeholder platform for marine litter and microplastics. More generally, UNEP pledged its support to Member States in advancing the critical marine litter agenda. The international community had the science, the pathways, the technology and the solutions, not to mention the ability, to fast-track innovative upstream and downstream interventions that could serve the needs of people and the planet.

VII. Other matters

184. Many representatives took the floor to reiterate their commitment to taking further steps to combat marine litter and microplastics and to achieving an ambitious outcome at the fifth session of the United Nations Environment Assembly to tackle the urgent problem of marine litter and microplastics in an effective and coherent manner.

VIII. Adoption of the report of the meeting

185. The expert group adopted the present report on the basis of the draft report set out in document UNEP/AHEG/4/L.1, on the understanding that the finalization of the report would be entrusted to the Rapporteur with the assistance of the Secretariat.

IX. Closure of the meeting

186. Following the customary exchange of courtesies, the Chair declared the meeting closed at 5 p.m. on Friday, 13 November 2020.

Annex

Outcome of the fourth meeting: chair's summary