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International environmental policy and governance issues

Progress in the implementation of resolution 4/6 on marine plastic litter and microplastics

Report of the Executive Director

Introduction

- 1. In paragraph 9 of its resolution 4/6 on marine plastic litter and microplastics, the United Nations Environment Assembly of the United Nations Environment Programme (UNEP) requested the Executive Director of UNEP to report to it at its fifth session on the progress achieved in the implementation of the resolution. The present report has been prepared in response to that request.
- 2. Resolution 4/6 builds on three previous Environment Assembly resolutions on marine litter and microplastics (resolutions 1/6, 2/11 and 3/7).
- 3. In paragraph 2 of resolution 4/6, the Environment Assembly requested the Executive Director of UNEP, subject to the availability of resources and benefiting from the work of existing mechanisms, to immediately strengthen scientific and technological knowledge with regard to marine litter, including marine plastic litter and microplastics, through the following activities:
- (a) Convening existing relevant science advisory initiatives to provide input into the activities outlined in paragraphs 3 and 7 of the resolution;
- (b) Compiling available scientific and other relevant data and information to prepare an assessment on sources, pathways and hazards of litter, including plastic litter and microplastics pollution, and its presence in rivers and oceans; scientific knowledge about adverse effects on ecosystems and potential adverse effects on human health; and environmentally sound technology innovations;
- (c) Recommending indicators to harmonize monitoring, reporting and assessment methodologies, taking into account key sources of marine litter, including plastic litter and microplastics;

^{*} In accordance with the decisions taken at the meeting of the Bureau of the United Nations Environment Assembly held on 8 October 2020 and at the joint meeting of the Bureaux of the United Nations Environment Assembly and the Committee of Permanent Representatives held on 1 December 2020, the fifth session of the Assembly is expected to adjourn on 23 February 2021 and resume as an in-person meeting in February 2022.

- (d) Gathering information with a view to informing policies and action regarding environmentally sound technological innovations, options and measures for reducing the risk of discharges of litter, including litter and microplastics, into the marine environment.
- 4. In paragraph 3 of the resolution, the Environment Assembly decided to establish a multi-stakeholder platform within UNEP to take immediate action towards the long-term elimination, through a life-cycle approach, of discharges of litter and microplastics into the oceans. The various possible functions of the platform included:
- (a) Serving as a forum to share experiences and coordinate action on a regular or ad hoc basis;
- (b) Serving as a repository for assessments, conceptual and practical guidance materials and current action plans, management practices and guidelines;
- (c) Raising global awareness of the issue with a wide variety of audiences, including governments, policymakers, resource managers, educators, private-sector entities and the public;
- (d) Establishing and maintaining a database of technical and scientific information related to marine litter;
- (e) Promoting collaboration among relevant scientific mechanisms to facilitate access to scientific data and information;
- (f) Promoting action in the framework of regional seas conventions and programmes to address marine litter through action plans, protocols, partnerships and other activities.
- 5. In paragraph 5 of the resolution, the Environment Assembly requested the Executive Director, through the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, to develop guidelines for the use and production of plastic in order to inform consumers, including about standards and labels; to incentivize businesses and retailers to commit themselves to using sustainable practices and products; and to support governments in promoting the use of information tools and incentives to foster sustainable consumption and production.
- 6. In paragraph 7 of the resolution, the Environment Assembly extended the mandate of the ad hoc open-ended expert group on marine litter and microplastics established in resolution 3/7 and requested the expert group, building on its previous work, to:
- (a) Take stock of existing activities and action by all actors to reduce marine plastic litter and microplastics;
- (b) Identify technical and financial resources or mechanisms for supporting countries in addressing marine plastic litter and microplastics;
- (c) Encourage partnerships that undertake activities such as the development of source inventories, the improvement of waste management, awareness-raising and the promotion of innovation in relation to the prevention of marine litter;
- (d) Analyse the effectiveness of existing and potential response options and activities with regard to marine litter and microplastics.
- 7. In paragraph 8 of the resolution, the Environmental Assembly invited the Environment Management Group to engage in and contribute to the work of the ad hoc open-ended expert group on marine litter and microplastics by providing, among other things, mapping of all United Nations agencies, programmes, initiatives and other sources of expertise relating to marine litter, including plastic litter and microplastics.
- 8. The Global Partnership on Marine Litter is a key platform for enabling coordination and cooperation among stakeholders for the prevention of marine litter and plastic pollution. It serves as the main UNEP mechanism for implementing activities relating to marine litter and microplastics.
- 9. UNEP provides the secretariat services for the Global Partnership and, pursuant to the request in paragraph 7 of resolution 3/7 to strengthen its contribution to the Partnership, has strengthened those secretariat services and implemented various activities through the Partnership, as is detailed below.
- 10. Resolution 4/6 has been implemented at the global, regional and national levels in coordination with United Nations agencies, multilateral environmental agreements and the regional seas conventions and action plans, as well as with the members of the Global Partnership on Marine Litter and its steering committee and regional nodes. Other actors include Governments and major groups

and stakeholders through, for example, the ad hoc open-ended expert group, UNEP-hosted networks and groups, and collaborating centres, including GRID-Arendal.

- 11. Extrabudgetary funding has been a major source of support for the implementation of resolution 4/6. The main donors for the implementation of activities relating to marine litter and microplastics for the period 2019–2020 were Canada, France, Japan, Monaco, Norway, Sweden and the Nordic Council of Ministers.
- 12. The work undertaken to implement resolution 4/6 has also contributed to the implementation of several other Environment Assembly resolutions, including resolution 4/11 on the protection of the marine environment from land-based activities; resolution 4/1 on innovative pathways to achieve sustainable consumption and production; resolution 4/5 on sustainable infrastructure; resolution 4/7 on environmentally sound management of waste; resolution 4/8 on the sound management of chemicals and waste; resolution 4/9 on addressing single-use plastic products pollution; resolution 4/12 on the sustainable management for global health of mangroves; resolution 4/13 on sustainable coral reefs management; resolution 4/17 on promoting gender equality and the human rights and empowerment of women and girls in environmental governance; and resolution 4/20 on the Fifth Programme for the Development and Periodic Review of Environmental Law (Montevideo Programme V): delivering for people and the planet.

I. Progress in the implementation of resolution 4/6

A. General implementation activities

13. The implementation of activities under resolution 4/6 supports the achievement of expected accomplishments of a number of UNEP subprogrammes, including expected accomplishment (a)¹ of subprogramme 3, Healthy and productive ecosystems; expected accomplishment (b)² of subprogramme 4, Environmental governance; expected accomplishments (a)³ and (b)⁴ of subprogramme 5, Chemicals, waste and air quality; and the sole expected accomplishment⁵ of subprogramme 7, Environment under review. These activities mainly fall under programme of work project no. 522.4, entitled "Protecting the Marine Environment from Land-Based Pollution through Strengthened Coordination of Global Action". Several activities have taken place at the global level, with close collaboration and engagement with all United Nations regions and regional seas conventions and action plans, in the areas of work discussed below.

1. Support for developing and strengthening governance frameworks to address marine litter and microplastics

- 14. This area of work covers reporting and advancing global and regional governance arrangements for addressing the issue of marine litter and microplastics. It includes support for the ad hoc open-ended expert group on marine litter and microplastics and the facilitation of multi-stakeholder participation across regions through various activities.
- 15. Under this area of work, UNEP supports the development of regional actions plans for marine litter. A total of 12 regional marine litter action plans are now in place, with the latest adopted in East Africa and South-East Asia. An additional four action plans are in preparation, for the north-east Pacific and for West, Central and Southern Africa, with several regional and subregional workshops convened for the purpose. Implementation support was provided for action plans for the Pacific, the

¹ The health and productivity of marine, freshwater and terrestrial ecosystems are institutionalized in education, monitoring and cross-sectoral and transboundary collaboration frameworks at the national and international levels

² Institutional capacities and policy and/or legal frameworks enhanced to achieve internationally agreed environmental goals, including the 2030 Agenda for Sustainable Development and the Sustainable Development Goals

³ Policies and legal, institutional and fiscal strategies and mechanisms for sound chemicals management developed or implemented in countries within the framework of relevant multilateral environmental agreements and the Strategic Approach to International Chemicals Management.

⁴ Policies and legal and institutional and fiscal strategies and mechanisms for waste prevention and sound management developed or implemented in countries within the framework of relevant multilateral environmental agreements.

⁵ Governments and other stakeholders use quality open environmental data, analyses and participatory processes that strengthen the science-policy interface to generate evidence-based environmental assessments, identify emerging issues and foster policy action.

wider Caribbean region, the Mediterranean, East Africa, the north-west Pacific, the Red Sea and the Gulf of Aden, South-East Asia and South Asia. There are also five Global Partnership on Marine Litter regional nodes in place and one under development. The Steering Committee of the Partnership adopted terms of reference for the regional nodes⁶ and UNEP has prepared guidance material on the development of regional action plans.⁷

2. Support for enhanced marine litter and microplastics management to reduce marine pollution in key regions

- 16. This area of work informs priority interventions related to sources, flows, pathways, impacts and related priority responses and contributes to a better-defined policy arena for global coordinated response to the issue. It also targets and contributes to capacity-building through the application of tools and best field practices.
- 17. Key activities included the creation of a global plastic flow model to simulate plastic flow using outputs from ocean circulation models. The model can be used to determine where the marine plastic released into the ocean by a given country goes and where the marine plastic found on the coastline of a given country comes from. UNEP also contributed to the development of approaches for hotspot identification, including a method for marine litter hotspot assessment developed in partnership with East China Normal University. The method, which builds on modelling as well as expert elicitation so that its application can be adjusted to context and data availability, will be applied in countries in South-East Asia during 2021. UNEP also conducted municipality-level geographic information system modelling in partnership with the United Nations Human Settlements Programme (UN-Habitat) and the University of Leeds to identify land-based point-source hotspots in Africa and South Asia, using waste management characteristics data (for example, about waste generation and dumpsite locations), geographic and meteorological data for such things as waterways, terrain and surface runoff and drainage systems, and behavioural and socioeconomic data such as GDP per capita.

3. Enhancement of national and regional capacities for the assessment and monitoring of marine litter and microplastics

- 18. At the global level, UNEP aims to harmonize assessment efforts relating to marine litter and microplastics in the framework of the Sustainable Development Goals, including but not limited to target 14.1.
- 19. At the national level, UNEP assists Member States with enhancing national capacity to achieve the target. It does this by assisting countries in gathering scientific data, strengthening the evidence and scientific knowledge base for action, prioritizing interventions, selecting the most environmentally sound and cost-effective measures, and catalysing action.
- 20. All UNEP divisions were engaged in the development of the concept of "national source inventories" for marine litter and microplastics to guide the development of national action plans for marine litter. Still in the pilot phase, a national source inventory consists of a comprehensive assessment of the marine litter sources, pathways and accumulation zones within a country's national jurisdiction. The inventory takes into account data as far upstream as the production and importation of plastic products and the approximate quantities of plastic on the domestic market, using a material flow accounting approach. It assesses the waste management system in the country and its vulnerability to waste leaking into the environment. This approach allows the precise identification of key intervention points to reduce such leakage and thereby prevent marine litter from reaching the ocean. The inventories, coupled with methodologies identified by the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), contribute to the collection of relevant data from across the plastic life cycle and from source to sea in relation to other relevant Sustainable Development Goals targets.
- 21. UNEP has also focused on the application of tools and methodologies for strengthened capacity to use innovative monitoring and assessment approaches in developing countries. UNEP developed an approach for applying some of the methodologies identified in the GESAMP guidelines for the monitoring and assessment of plastic litter in the ocean⁸ and tested the approach through pilot

⁷ https://papersmart.unon.org/resolution/uploads/3_aheg_inf_7_-_marine_litter_guidelines_for_designing_regional_action_plans_summary.pdf.

⁶ https://www.gpmarinelitter.org/who-we-are/regional-nodes.

⁸ http://www.gesamp.org/publications/guidelines-for-the-monitoring-and-assessment-of-plastic-litter-in-the-ocean.

projects in Kenya and Seychelles. In-situ monitoring was implemented through the training of 50 people for baseline setting, and relevant national and regional centres were identified to support further monitoring efforts in the region. Building on that experience, an additional five to 10 pilot projects are planned for South-East Asia and the Caribbean. A "Training of Trainers on Monitoring and Assessment of Marine Plastic Litter and Microplastics" workshop was arranged for countries of East Africa and South-East Asia 9 in 2019 based on the guidelines, and additional regional and national training activities are planned.

- 22. UNEP is preparing two additional methodologies for assessing marine litter and microplastics, including plastics, entering from land and freshwater systems: (a) Plastics, Microplastics and Microfibers in Wastewater: An assessment of the presence of plastics, microplastics, and microfibers in wastewater and the sludge, together with a toolkit/catalogue of options for the removal of these pollutants; and (b) Guidelines for Harmonization of Monitoring Methodologies for Macroplastics and Microplastics in Rivers and Lakes. These guidelines will aid in the development and implementation of monitoring programmes for rivers, lakes, reservoirs and wastewater treatment plants and will contribute to the enhancement of national capacity to report on Sustainable Development Goal targets 6.3 (water quality) and 14.1 (marine pollution). UNEP will also incorporate the guidelines into its training-of-trainers programmes and its massive open online course on marine litter, which to date has had more than 30,000 registered participants. Planning is under way for pilot projects to apply these new monitoring methodologies on large river systems around the world in coordination with other relevant entities working on rivers as pathways.
- 23. Data for Sustainable Development Goal indicator 11.6.1¹¹ were also collected with UN-Habitat in Kenya and Seychelles. The surveys and the stakeholder workshops resulted in the identification of key waste management infrastructure projects for reducing marine plastic litter. The data collection exercise also contributed to the development of a plastic leakage model for cities and of an indicator 11.6.1 sub-indicator relating to plastic leakage potential in cities, which will be part of national source inventories, together with the indicators for Sustainable Development Goal target 6.3. An additional 12 city assessments are in the pipeline, as is a Global Environment Facility–supported project in four countries for the city-level application of circularity approaches to prevent marine plastic litter.

4. Knowledge and communication products and delivery platform

- 24. This area of work aims to enhance the development and reach of knowledge outputs for stakeholders to inform decision-making and action through the range of available media, tools and learning methods. It supported:
- (a) Development of a legislative guide on the regulation of single-use plastics, with a broader policy toolkit planned as part of the Law and Environment Assistance Platform; 12
- (b) Awareness-raising regarding issues related to environmental justice, marine litter and plastic;¹³
- (c) Expansion of the knowledge base relating to risk assessment from source to fate in relation to marine litter, including emerging pollutants, nano-plastics and plastics as vectors, through the work of entities such as GESAMP;¹⁴
- (d) Review of the current status of knowledge and knowledge gap regarding the role of chemicals in plastics and their impact on the environment and health;
- (e) The publication Single-Use Plastic Bags and Their Alternatives: Recommendations from Life Cycle Assessments;
- (f) Advocacy, education materials and youth engagement including through online courses, and the Tide Turners Plastic Challenge Badge, which engaged more than 30,000 young people;

 $^{^9\} https://www.unenvironment.org/cobsea/events/workshop/training-trainers-monitoring-and-assessment-marine-plastic-litter-and-microplastics.$

¹⁰ The guidelines will be made available prior to the fifth session of the Environment Assembly.

¹¹ Percentage of municipal solid waste collected and managed in controlled facilities out of the total generated by the city.

¹² See https://leap.informea.org/.

¹³ Further information will be made available prior to the fifth session of the Environment Assembly.

 $^{^{14}}$ http://www.gesamp.org/publications/gesamp-international-workshop-on-assessing-the-risks-associated-with-plastics-and-microplastics-in-the-marine-environment.

- (g) A massive open online course on marine litter and microplastics, whose four iterations have attracted more than 30,000 students, with the last one launched in October 2020 in 10 languages, and "master classes" on monitoring methodologies and policy approaches to debut in 2021;
- (h) A review of financial instruments and measures, including the first global study of the insurance industry on risks associated with plastic pollution, "Unwrapping the risk of plastic pollution to the insurance industry", conducted by the UNEP Finance Initiative and the Global Partnership on Marine Litter. Follow-up work is planned, taking into account results of the survey of financial resources and mechanisms to be conducted pursuant to paragraph 7 (b) of resolution 4/6.
- (i) Implementation and further development of the "Clean Seas" campaign, which involves more than 60 Governments, with a mid-term review and survey conducted to ensure impact and provide input for planning on how to best support action leading up to 2022. Regional Clean Seas campaigns were launched in the Caribbean and the Pacific and several activities were implemented to increase action on marine litter and microplastics.

B. Implementation of resolution 4/6, paragraph 2: strengthen scientific and technological knowledge with regard to marine litter, including marine plastic litter and microplastics

25. The Executive Director of UNEP convened a scientific advisory committee¹⁵ to guide the implementation of resolution 4/6, paragraph 2, including the preparation of an assessment of sources, pathways and hazards of litter, including plastic litter and microplastics pollution, pursuant to subparagraph 2(b). UNEP developed the conceptual approach for the assessment, established parameters for identifying areas in need of more research and generally built on the UNEP 2016 report, *Marine plastic debris and microplastics – Global lessons and research to inspire action and guide policy change*, in preparing the assessment. Based on the assessment, UNEP will also recommend indicators as per the request in subparagraph 2(c). The assessment report will be made available as an information document for the fifth session of the Environment Assembly.

C. Implementation of resolution 4/6, paragraph 3: establishment of a digital multi-stakeholder platform for marine litter and microplastics

- 26. UNEP, in cooperation with the Science Policy Business Forum, will launch phase 1 of the multi-stakeholder platform as the digital arm of the Global Partnership on Marine Litter in February 2021. The platform will facilitate coordination among stakeholders and will aim to integrate data and information from multiple sources; connect stakeholders; identify gaps and help prioritize actions; coordinate and guide action based on the best available science and information; and facilitate target setting and measuring progress, including towards achievement of the Sustainable Development Goals and other goals, targets and indicators.
- 27. A pilot demonstration of the data mapping and search components of the platform was created in partnership with International Business Machines Corporation (IBM) and finalized in June 2020. The demonstration illustrated the value of integrating and analysing citizen science data to enable reporting progress towards Sustainable Development Goal sub-indicator 14.1.1.b and allowed exploration of how a digital avatar could encourage emotional engagement while delivering customized content. Following the pilot demonstration at the Act#ForNature global online forum, a conceptual architecture was produced to further guide the design and development of the platform.
- 28. An extensive stakeholder consultation was conducted to establish strategic, technology and data partnerships.¹⁸ This consultation also informed the development of phase 1 of the platform, which builds on the pilot demonstration to provide access to information from internal and external databases through a single portal. Stakeholders including Governments, the scientific and technical community, businesses and non-governmental organizations will be able to use the platform to find data and information, use mapping and layering tools, and interact with other users.

¹⁵ For more details see document UNEP/AHEG/2019/3/INF/6.

¹⁶ The development of the platform responds to the request in paragraph 7 (b) of Environment Assembly resolution 3/7 that the Executive Director strengthen the capacity and activity of UNEP on marine litter and microplastics by providing advice on the prioritizing of activities based on best available scientific knowledge and the most environmentally sound and cost-effective measures to prevent and reduce marine litter and microplastics.

¹⁷ The site will be launched before the fifth session of the Environment Assembly.

¹⁸ More information is available at https://www.gpmarinelitter.org/what-we-do/gpml-digital-platform.

- 29. Platform content will include data sets and data layers such as a plastic flow model¹⁹ assessing how litter moves through the environment, a policy toolkit²⁰ with information on national legislation from around the world, a marine litter technology inventory,²¹ an online repository of ongoing activities and actions to reduce marine plastic and microplastic²² and an inventory of marine litter actions dashboard and action plans. Additional tools, with pilot demonstrations, being developed include interfaces for inventories of technical and financial resources and mechanisms, interoperability between models and matchmaking functionalities.
- 30. Additional assessments with country partners and other user groups will help confirm priorities for a series of requests for phased releases beginning in early 2021. The coordination and further development of the platform will be supported by Global Partnership on Marine Litter "action tracks", to be launched in February 2021.

D. Implementation of resolution 4/6, paragraph 5: consumer guidelines for the use and production of plastics

31. The development of the guidelines for the use and production of plastics in order to inform consumers has been coordinated by the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns. The guidelines are centred around the promotion of sustainable consumption and production practices and the uptake of circularity across the entire plastics value chain to address plastics pollution. They aim to specifically harness the power of consumers in triggering upstream changes in the production process. The common framing of the guidelines focuses on three key areas of intervention – information on the sustainability of plastic packaging, changing public procurement practices and understanding triggers for behaviour change – and their application in the tourism and food systems sectors. Change is sought through three key interventions: eliminating problematic or unnecessary plastic packaging; moving from single use towards re-use models; and ensuring that 100 per cent of plastic packaging is reusable, recyclable or compostable or has an ambitious recycled content target. The guidelines offer detailed recommendation for more effective consumer communication on plastic packaging in relation to standards, labels²³ and the design of successful communication campaigns.²⁴

E. Implementation of resolution 4/6, paragraph 7: ad hoc open-ended expert group on marine litter and microplastics

32. The ad hoc open-ended expert group on marine litter and microplastics held four meetings – in May 2018, December 2018, November 2019 (with guidance for the intersessional period) and November 2020 (online). Several technical briefings were also held, as well as two virtual meetings to prepare for the fourth meeting. At that meeting, held online from 9 to 13 November 2020, the expert group considered potential options for continued work for consideration by the Environment Assembly. It adopted a chair's summary²⁵ setting out, among other things, potential options for continued work.

F. Implementation of resolution 4/6, paragraph 8: mapping of all United Nations agencies, programmes, initiatives and other sources of expertise relating to marine litter, including plastic litter and microplastics

33. The Environment Management Group established a temporary inter-agency task team on marine litter and microplastics in 2019 to facilitate the preparation of the mapping exercise proposed in paragraph 8 of resolution 4/6. As part of the mapping exercise, the stocktaking survey was circulated to the task team members. The input from United Nations entities formed the basis of the

¹⁹ See http://marinelitter.coaps.fsu.edu/.

²⁰ See https://leap.informea.org/.

²¹ In response to the request in resolution 4/6, paragraph 2 (d). More information is available at https://ml-resource-inventory.herokuapp.com/.

²² https://environmentassembly.unenvironment.org/stocktaking-online-repository.

 $^{^{23}\} https://www.oneplanetnetwork.org/sites/default/files/unep_ci_2020_can_i_recycle_this.pdf_constants.pdf_co$

²⁴ More information on the guidelines is available at https://www.oneplanetnetwork.org/one-planet-network-wide-plastics-initiative.

²⁵ The summary is annexed to the report of the meeting and is also available at https://environmentassembly.unenvironment.org/chairs-summary-aheg-4.

stocktaking report.²⁶ The survey was followed by in-depth interviews with close to 50 entities. The initial results show that the United Nations system is addressing marine litter at all levels (global, regional, transnational, national and subnational). Projects mainly address legislation and standards, building of the knowledge and scientific base, capacity-building and awareness-raising, and activities are implemented in collaboration with public administration and non-governmental organizations.

G. Progress under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

- 34. The plastic waste amendments to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the first and only global legally binding instrument to control the transboundary movements of plastic waste and to ensure environmentally sound management of such waste, were adopted by the Conference of the Parties to the Basel Convention at its fourteenth meeting, in 2019.²⁷ The effective implementation of the amendments, as of 1 January 2021, would enable countries to strengthen the control of trade in plastics, continue recycling, ensure the environmentally sound management of plastic, and prevent and minimize the generation of plastic waste.
- 35. Technical guidelines on plastic waste²⁸ and other guidance documents²⁹ are being developed by expert groups to support countries in the implementation of the plastic waste amendments. The secretariat of the Basel, Rotterdam and Stockholm conventions is also providing technical assistance³⁰ to countries, with a focus on the three pillars of the Basel Convention. Pilot projects³¹ are being implemented in Bangladesh, Ghana and Sri Lanka, and more projects are planned, including through the small grant programme of the regional centres³² and the Partnership on Plastic Waste, established by the Conference of the Parties to the Basel Convention at its fourteenth meeting.³³
- 36. The secretariat of the Basel, Rotterdam and Stockholm conventions has contributed to the work of the ad hoc open-ended expert group on marine litter and microplastics and continues to cooperate closely with UNEP in fulfilling the mandates set out in the relevant Environment Assembly resolutions, including through partnerships, the forthcoming publication *Marine Litter and Plastic Waste: Vital Graphics* and an online platform for sharing information on regional and national initiatives to address plastic pollution.

II. Lessons learned and future activities

- 37. The coordination of action remains central, as the topic of marine plastic litter and microplastic is highly dynamic and multiple actors and initiatives are involved. To further facilitate multi-stakeholder cooperation, UNEP, through the Global Partnership on Marine Litter, will scale up its work by initiating "action tracks" under the Partnership. These action tracks will further coordinate action to address the priority areas highlighted in the Environment Assembly resolutions on marine litter and microplastics, by the ad-hoc open-ended expert group on marine litter and microplastics and by the assessment on sources, pathways and hazards of litter, including plastic litter and microplastics pollution. Possible themes for the action tracks would be: (a) bridging science, innovation and policy; (b) national-level action, including plans, monitoring, governance and project pipeline development; (c) harmonizing standards and guidelines; (d) sustainable innovative financing for leveraging increased coordination; and (e) access for all. These action tracks will offer stakeholders from a wide range of backgrounds a space to share and learn, with a view to fostering new actions and partnerships and amplifying existing initiatives.
- 38. Regional and national marine litter action plans have proven successful. Almost all regions now have such a plan, and UNEP will provide further support for the development and implementation of national action plans, including through the national source inventory approach, which includes aspects relevant to Sustainable Development Goals 6, 11, 12 and 14, and through national legislative reviews to guide the development of action plans.

²⁶ See UNEP/AHEG/4/2 and UNEP/AHEG/4/INF/6.

²⁷ http://www.basel.int/tabid/8426/Default.aspx.

²⁸ http://www.basel.int/tabid/7992/Default.aspx.

²⁹ http://www.basel.int/tabid/8333/Default.aspx.

³⁰ http://www.basel.int/tabid/8340/Default.aspx.

³¹ http://www.basel.int/tabid/8341/Default.aspx.

³² http://www.basel.int/tabid/8402/Default.aspx.

³³ http://www.basel.int/tabid/8096/Default.aspx.

- 39. Data quality and effective monitoring of land- and sea-based sources and the quantities, pathways, fate and impact of marine litter are all crucial for an evidence-based approach to decision-making in support of Sustainable Development Goal indicator 14.1.1. The training-of-trainers programme for the monitoring and assessment of marine litter and microplastics could be further expanded. UNEP plans to conduct additional needs assessments to identify more specific areas in need of capacity-building in various areas. Such areas may include data collection and analysis; feeding and calibrating models and calculators; and linking data to inform decision-making and future action.
- 40. Improved scientific knowledge helps in addressing the problem of marine litter and microplastics. The current risk assessment methods should be further improved, such as by developing a risk assessment framework that can capture the complex risks and exposure pathways identified in the assessment on sources, pathways and hazards of litter, including plastic litter and microplastics pollution, as well as the *Proceedings of the GESAMP International Workshop on assessing the risks associated with plastics and microplastics in the marine environment.*

III. Recommendations and suggested actions

- 41. The Environment Assembly may wish to take note of, and welcome the completion of, the work of the ad hoc open-ended expert group on marine litter and microplastics established under Environment Assembly resolution 3/7, as set out in the meeting reports of the expert group and in the chair's summary.³⁴
- 42. The Environment Assembly may wish to decide on the future direction of its work on marine litter and microplastics in the light of the response options identified by the ad-hoc open-ended expert group on marine litter and microplastics.
- 43. In preparation for its resumed fifth session, the Environment Assembly may wish to request the Executive Director to organize an informal expert group on marine litter and microplastics.
- 44. The Environment Assembly may wish to take note of the findings of the assessment on sources, pathways and hazards of litter, including plastic litter and microplastic pollution.³⁵
- 45. The Environment Assembly may wish to invite Member States and relevant stakeholders who have not yet done so to join the Global Partnership on Marine Litter and the Clean Seas campaign.
- 46. The Environment Assembly may wish to invite Governments, the private sector, foundations and other organizations to support the work of the United Nations Environment Programme on marine litter and microplastics through voluntary financial contributions.

³⁴ Available at https://environmentassembly.unenvironment.org/chairs-summary-aheg-4.

³⁵ The assessment will be made available to the Environment Assembly at its fifth session.