



Distr.: General  
29 September 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

**Taking stock of existing activities and action  
(subparagraph 7a)**

**Summary of the stocktake of existing activities and action  
towards the long-term elimination of discharges into the oceans  
to reduce marine plastic litter and microplastics\***

**Note by the Secretariat**

1. The ad hoc open-ended expert group (AHEG) was established through United Nations Environment Assembly (UNEA) resolution 3/7 paragraph 10. Its mandate was extended through UNEA resolution 4/6 paragraph 7, which also requested the group to, among other things, through subparagraph 7(a):

*“Take stock of existing activities and action by governments, regional and global instruments, international organizations, the private sector, non-governmental organizations and other relevant contributors to reduce marine plastic litter and microplastics with the aim of the long-term elimination of discharge into the oceans”*

2. The third ad hoc open-ended expert group on marine litter and microplastics requested the Secretariat<sup>1</sup> to:

- (a) Consider relevant work undertaken by UNEP, as well as other relevant existing bodies of work, such as information submitted as part of studies undertaken by, for example, the Group of 20, the Organisation for Economic Co-operation and Development, the Regional Seas Programmes and the Basel Convention;
- (b) Invite voluntary contributions to the stock-taking exercise through the survey tool or through other submissions; such contributions need not be exhaustive and may address any activity considered relevant by respondents;
- (c) Capture a wide range of activities, bearing in mind that the exercise would not be exhaustive;
- (d) Provide guidance for the submission process and provide support as needed.

\* The present document is being issued without formal editing.

<sup>1</sup> Outcome document from the third ad hoc open-ended expert group on marine litter and microplastics. Final version, 22 November 2019, Bangkok, Thailand.

[https://papersmart.unon.org/resolution/uploads/aheg\\_3\\_outcome\\_document\\_0.pdf](https://papersmart.unon.org/resolution/uploads/aheg_3_outcome_document_0.pdf)

3. This document provides a summary of the submissions to the stock-taking of existing activities and action (hereinafter referred to as “*actions*”) towards the long-term elimination of discharges into the oceans to reduce marine plastic litter and microplastics. The stock-taking exercise is aligned with a revised methodology to analyse the effectiveness of existing and potential response options and activities contributing towards long-term elimination of discharge of marine plastic litter and microplastics into the oceans, so as to determine the contribution they can make to solving this global problem. This work is mandated under UNEA resolution 4/6 subparagraph 7(d) and is further described in working document UNEP/AHEG/4/4. The results of the stock-taking describe the current focus of actions. They will also help define future desired action and response options.

## I. Introduction

4. The stock-taking exercise was carried out in order to gather information about ongoing and planned activities by stakeholder groups that address marine litter and microplastics directly and indirectly. The findings of the stock-taking exercise aim to assist in building the long-term capacity that would allow more strategic engagement in the overall process, including identification of areas with the greatest transformative potential.

## II. Method

5. This document reports on actions ongoing since 1 January 2018, including actions started before 1 January 2018 that are still ongoing. The stock-taking exercise’s data collection and analysis took place in two phases: Phase I from December 2019 to March 2020 and Phase II from April 2020 to July 2020. These phases are described in information document UNEP/AHEG/4/INF/6. Stock-taking presents an opportunity to obtain a snapshot of the current situation and ongoing work. It enables Member States, major groups and stakeholders and others to learn about current actions and challenges. The results also contribute to identifying best practice case studies that use partnership approaches.

6. To complete the stock-taking, as requested in subparagraph 7(a) of resolution 4/6, governments, agencies engaged in work related to regional and global instruments, international organizations, the private sector, non-governmental organizations (NGOs) and other relevant actors were invited to submit information on their ongoing actions. The following section describes the method of data capture.

### A. Data capture

7. Actions were captured for the stock-taking via three routes. Figure 1 shows data sources and where the data will be made available. Information could be entered using a dedicated online survey entitled “A Stocktake: Reducing Marine Plastic Litter and Microplastics”. This survey was open to submissions between 18 December 2019 and 31 July 2020. Information could also be submitted by completing a narrative template [“Template for country updating (information sharing) for the implementation Framework for Actions on Marine Plastic Litter”] via the UNEA papersmart portal.

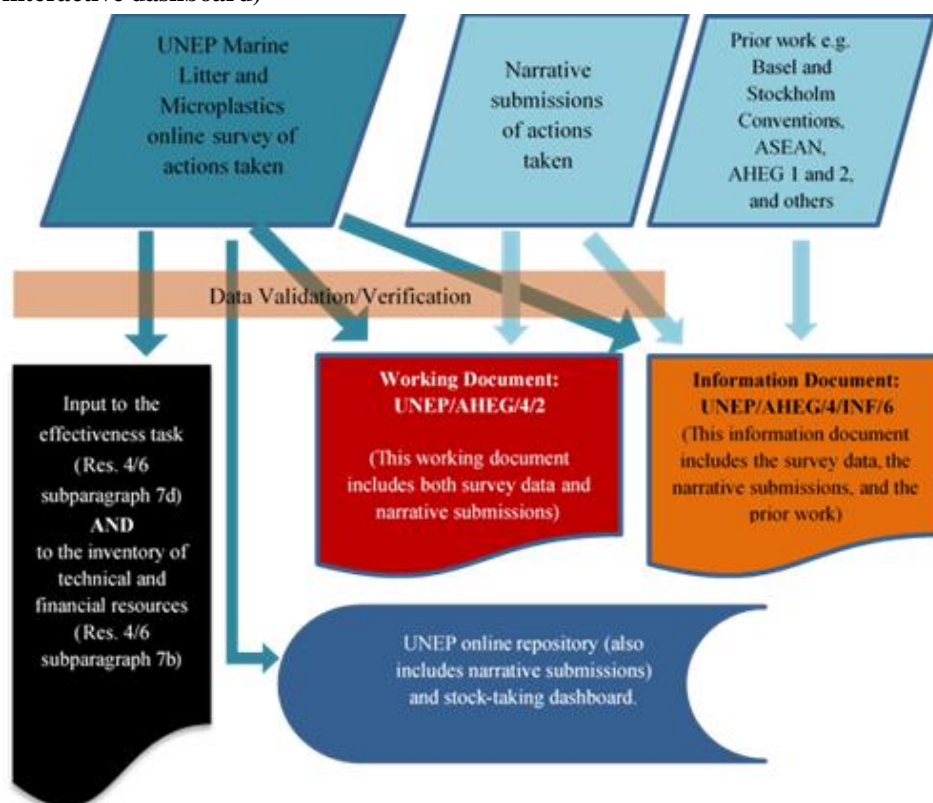
8. Recognizing that Member States had already submitted information on actions taken towards long-term elimination of discharges into the oceans, desk research on prior work was carried out to capture these actions from reports and websites of entities such as the Association of Southeast Asian Nations (ASEAN), the Basel Convention and Stockholm Convention, and the Global Partnership On Marine Litter (GPML), as well as previous submissions to the AHEG-1 and AHEG-2.

9. Insights and data from the stock-taking will be accessible from three sources:

- (a) this working document, which is a summary of the results of the stock-taking;
- (b) the information document UNEP/AHEG/4/INF/6 which presents the survey data and includes an overview of the narrative submissions and prior work;
- (c) an online platform hosted by UNEP, which will consist of two elements:
  - (i) an interactive dashboard, which allows the user to visualise key attributes, such as source-to-sea, type of lead organisation, and lifecycle phase, and enables comparisons on country/region level.
  - (ii) an online repository, which is searchable and enables users to access source documents and additional information on each action, such as reports or links to project websites.

Figure 1

Overview of stock-taking efforts and data flow, showing the three routes of data capture as well as their relationship to the two reporting documents (UNEP/AHEG/4/2 and UNEP/AHEG/4/INF/6) and the online platform (which includes the online repository and the interactive dashboard)



## B. The online survey: dissemination and invitations

10. Following the third meeting of the ad hoc open-ended expert group on marine litter and microplastics on 18-22 November 2019, an invitation was sent to Member States and major groups and stakeholders on 18 December 2019 from the Chair of the ad hoc open-ended expert group inviting their inputs to the stock-taking via the papersmart portal<sup>2</sup>. Further invitations were disseminated, including via various social media channels, between January and July 2020.

11. The survey was open to responses from 18 December 2019 to 31 July 2020. Responses received after 31 July 2020 were not considered for this working document but are summarized in the information document UNEP/AHEG/4/INF/6.

12. A guidance document was provided via the papersmart portal<sup>3</sup> and linked to the survey. This document included information on the following:

- (a) background and objectives of the survey
- (b) why organisations should complete the survey
- (c) who the right person to complete the survey would be within their organisation
- (d) what information they would need to prepare
- (e) relevant definitions
- (f) Frequently Asked Questions (FAQs)

<sup>2</sup> <https://papersmart.unon.org/resolution/stocktaking>

<sup>3</sup>

[https://papersmart.unon.org/resolution/uploads/guidelines\\_for\\_marine\\_plastic\\_litter\\_stocktake\\_survey\\_2\\_hs1.pdf](https://papersmart.unon.org/resolution/uploads/guidelines_for_marine_plastic_litter_stocktake_survey_2_hs1.pdf)

13. On 20 January 2020 a first webinar was held to explain the survey aims and procedures. Questions from participants further informed the FAQs section of the guidance document, which was updated. On 21 May 2020 a second webinar<sup>4</sup> was held to communicate initial findings and invite more submissions, up to the deadline of 31 July 2020. Both webinars were recorded and made available online via the papersmart portal<sup>5</sup>.

14. A dedicated e-mail address<sup>6</sup> was provided in the webinars, in the guidance document and on the papersmart portal and was monitored throughout the survey period.

### C. Data received, quality assurance and data storage

15. As of 31 July 2020, 226 submissions to the online survey had been received, of which 220 were usable. Sixty-three submissions were received via the narrative submission route. Survey data (csv file, SPSS and Excel) are stored on University of Plymouth (UoP, United Kingdom) servers and laptops,<sup>7</sup> password protected, and backed up regularly. There are two sets of data: a) personal contact data; and b) data on the actions. Participants confirmed during the survey that the data on actions can be made publicly available. These data are shared for the searchable online platform and with four university partners who are currently engaged in additional data validation and verification.

## III. Results

### A. Overview of actions submitted through the online survey

16. A provisional overview of the data from the survey is presented here. Further data are presented, with more detailed analysis, in UNEP/AHEG/4/INF/6.

17. **Online survey** respondents reported on 220 existing actions towards long-term elimination of discharges into the oceans. Submissions were received from 51 government entities, 41 UN entities, 32 major groups and stakeholders, 21 intergovernmental organizations and 75 other stakeholder entities. One hundred and four actions were continuous, with a duration of more than three years; 65 were of one to three years' duration; 12 were of less than one year's duration; and 23 were a single event (with 16 "other" or "not applicable" responses).

18. The geographic focus of actions was reported as follows: 70 national actions (covering one entire country); 54 sub-national actions (covering part of one country); 30 transnational (including bilateral) actions; 26 global actions; and 20 regional actions. Four global actions, although global in scope, included actions ongoing in specific areas; 16 "other" category actions were described as affecting specific schools or smaller areas, individual cities or communities, or a particular sea. Actions were mapped to show the location of *at least one* action under way in each Member State (Figure 2).

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<sup>4</sup> <https://environmentassembly.unenvironment.org/archive-activities-and-webinars-supporting-presentations-and-documents#stocktaking>

<sup>5</sup> <https://vimeo.com/386661665>

<sup>6</sup> [marinelitterstocktake@plymouth.ac.uk](mailto:marinelitterstocktake@plymouth.ac.uk)

<sup>7</sup> The data processors are at the University of Plymouth (UoP) in the United Kingdom. The data controllers are at UNEP.

Figure 2

**Pinpoints indicate locations by country for which at least one existing action was reported. Blue, teardrop-shaped pins indicate locations of UN actions. The map is intended to visualize geographically the locations that reported to the stock-taking survey. The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries**



## B. Categories of actions (definitions)

19. The online survey asked respondents to report actions using one of four main categories (highlighted below in bold) and to indicate which further subcategories applied:

(a) **Legislation, standards and rules.** Official agreements, policy change or development, high-level strategy, legislation or regulations, voluntary commitments, new standard(s) or guideline(s), changes in taxes/subsidies, subsidies/financial incentives, ban(s), package of measures combining incentives and infrastructure (e.g. deposit refund schemes).

(b) **Working with people.** Awareness raising and behavioural change (information campaign(s)/ programme(s), community engagement, stakeholder engagement, citizen science, creative/arts events), education and training (curriculum development, professional training, lifelong learning, institutional development), workshops, conferences.

(c) **Technology and processes.** New product design, change in service provision, environmental social planning, change in practice, change in operations, industrial or production standard, different environmental management of land-based environments, different environmental management of aquatic environments, research and development (reducing environmental impact, developing a new material, developing a new process, manufacturing and production, standards, waste management, compostable plastic, bio-based plastic, biodegradable plastic), new infrastructure, use of compostable plastic, use of bio-based plastic, use of biodegradable plastic.

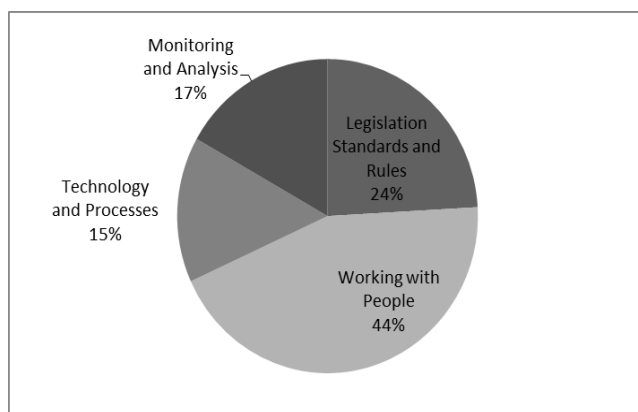
(d) **Monitoring and analysis.** Monitoring on or near the ocean surface/water column/sea floor/shoreline, biota/air, review and synthesis (environmental, economic, materials).

20. It should be noted that, for the purposes of the survey, the UNEP/AHEG/2019/3/2 terminology was amended slightly to make it more accessible to respondents, following feedback and discussion at the AHEG-3 meeting in Bangkok, Thailand. The “normative” category of action became “legislation, standards, rules”; “capacity building” was changed to “working with people”; and “evidential” was changed to “monitoring and assessment”. In addition, “technology and processes” was included as a category of action to facilitate synergies and co-ordination with the preparation of the report, “Identification of technical and financial resources or mechanisms for supporting countries in addressing marine plastic litter and microplastics” (UNEP/AHEG/4/3).

21. As shown in Figure 3, 44% of the 220 reported actions were reported in the “working with people” category, 24% were reported in the “legislation, standards and rules” category, 17% were

reported in the “monitoring and analysis” category, and 15% were reported in the “technology and processes” category.

Figure 3  
Frequency of actions reported to the online survey by categories of action



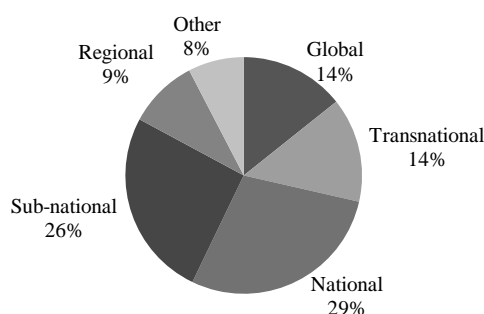
22. Actions in the **legislation, standards and rules** category most often focused on legislation, regulations, and policy change/development in terms of the sub-categories. Actions in the **working with people** category most often entailed awareness-raising and education. Fewer reported actions involved incentives, infrastructure measures, financial incentives, taxes or subsidies. With respect to actions in the **technology and processes** category, changing practices and/or operations (as well as new product design) featured prominently among the types of actions taken. In contrast, industry or production standards and use of bio-based, biodegradable or compostable technologies were reported least frequently. Accordingly, research and development (R&D) actions made up 13 of 33 technology actions, with an R&D focus on waste management and production processes. Five actions focused on the development of new materials and four focused on compostable, biodegradable or bio-based materials. Actions in the **monitoring and analysis** category focused most frequently on the shoreline (22 actions) and involved environmental review and synthesis (14 actions) as opposed to monitoring biota (four actions) or the water column (three actions). Monitoring data were open source and readily available in the case of 71 per cent of monitoring actions. However, out of 37 monitoring actions reported, more than 25 different monitoring protocols were cited. It should be noted that respondents could choose more than one focus for the sub-categories within category of action.

### C. Geographic focus, environmental zone, life cycle phase, reporting and evaluation by categories of action

23. In line with UNEP/AHEG/2019/3/2, the major categories of actions (legislation, standards and rules; working with people; technology and processes; monitoring and analysis) are presented below using four cross-cutting themes (geographic focus, environmental zone, life cycle phase, reporting and evaluation). Respondents submitted data on the geographic focus of actions (see Figure 4 and Table 1 for details); the environmental zone or where, from source to sea, actions were targeted; which part of the life cycle/plastic supply chain was targeted; and reporting of actions.

(a) **Geographic focus:** Actions were predominantly national or subnational in focus rather than global, transnational or regional (Figure 4).

Figure 4  
Geographic focus of actions



In addition, *working with people* and *legislation, standards and rules* actions made up 71 per cent of total national actions, while 15 per cent were *technology and processes* actions. Thirty-three per cent of global actions were in the *technology and processes* category.

(b) **Environmental zone:** The actions reported took place most often in the coastal zone or the urban environment and involved working with people. Legislation, standards and rules actions were mostly related to the urban environment, coastal zone, maritime areas, entire water catchments and rivers. Technology and processes actions also frequently focused on the coastal zone or the urban environment, with a considerable amount of actions carried out at waste disposal sites (Table 1).

Table 1

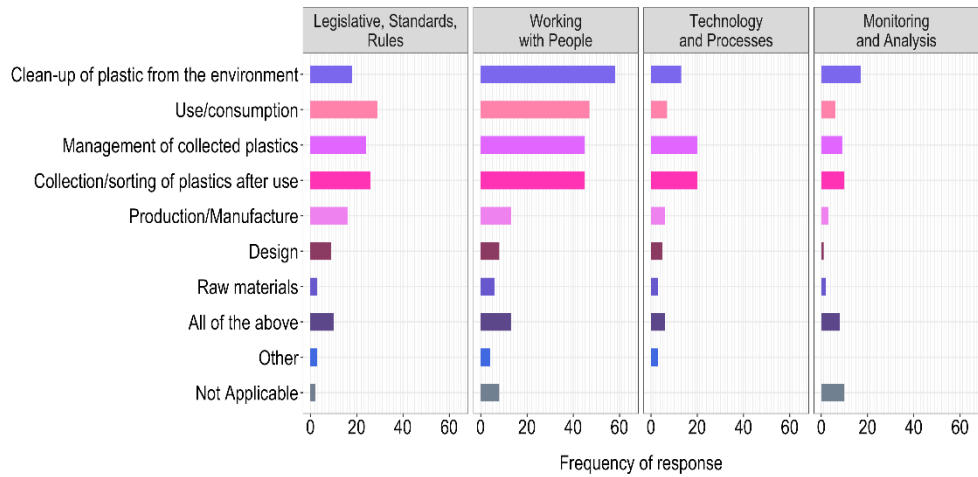
**Summary of situational analysis of the major categories of actions by cross-cutting themes: environmental zone, and reporting and evaluation**

	<i>Legislation, standards and rules</i>	<i>Working with people</i>	<i>Technology and processes</i>	<i>Monitoring and analysis</i>
Total actions per main category	53 (24%)	97 (44%)	33 (15%)	37 (17%)
<b>Environmental zones or where actions occur from “source to sea” (respondents were asked to select all that applied)</b>				
Mountains and upland area	7	8	3	2
Agricultural land/soil	6	7	4	2
Entire water catchment	13	14	7	3
Forests or mangroves	7	15	3	3
Freshwater rivers and lakes	10	28	8	6
Urban environment	21	42	11	8
Waste disposal sites	13	26	12	7
Coastal zone	16	60	10	25
Maritime area within national jurisdiction	15	31	4	9
Areas beyond national jurisdiction	4	8	0	4
Open ocean and high seas	4	14	5	5
Air	1	2	0	0
All of the above	6	4	4	4
Not applicable	9	12	1	0
Other	8	7	6	9
<b>Reporting and evaluation</b>				
Yes, we report on the action	32	81	26	26
No, we do not report on the action	11	7	2	0
Reporting not applicable	10	9	5	11
Yes, outcomes are evaluated	30	64	20	22
No, outcomes are not evaluated	13	25	5	14
Other comments on evaluation <sup>8</sup>	8	8	7	1

(c) **Life cycle phase:** Many actions were reported in all categories on use/consumption and post-consumption (sorting and management of plastics collected). Fewer actions were reported in the design, production, manufacture and raw material phases (Figure 5).

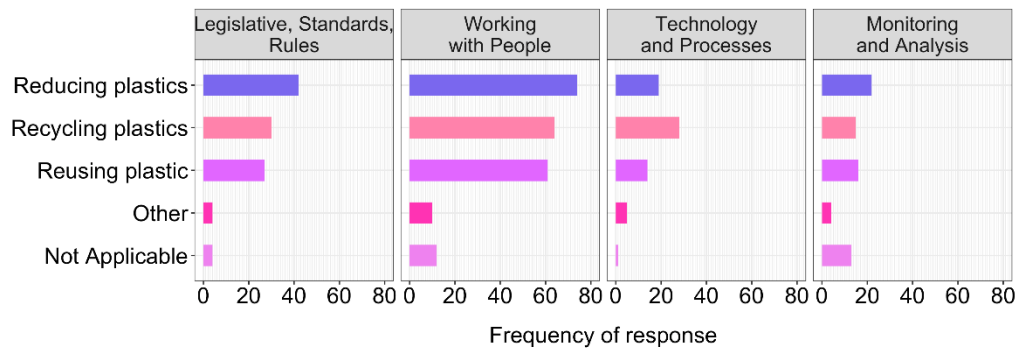
<sup>8</sup> No response (n = 3).

**Figure 5**  
**Specific part of the life cycle/plastic supply chain targeted, by category of action. Respondents were asked to choose all that applied**



In addition, there was a different pattern of emphasis by category of action, with legislation, standards and working with people actions targeting reduce, reuse and recycling, whereas technology and processes actions more frequently targeted recycling (Figure 6).

**Figure 6**  
**Number of actions targeting Reduce, Reuse and Recycle (by category). Respondents were asked to choose all that applied**



(d) **Reporting and evaluation:** Actions were reasonably well reported across categories, with 60 per cent of legislation, standards and rules actions, 84 per cent of working with people actions, 79 per cent of technology and processes actions, and 70 per cent of monitoring and analysis actions reported (Table 1).

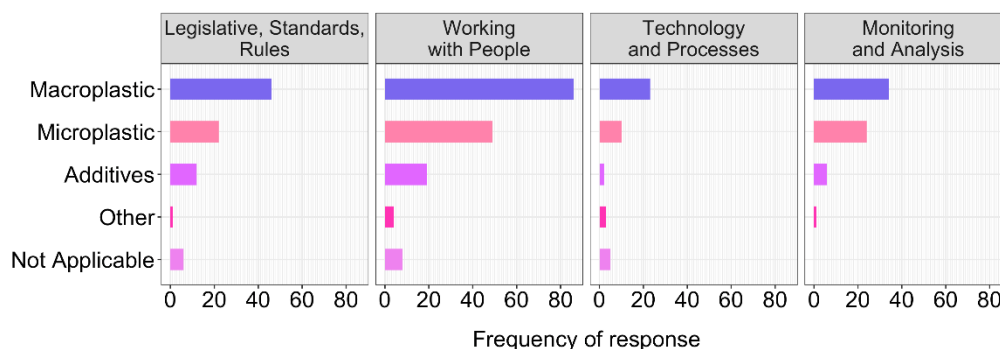
**D. Pollutants and impacts**

24. Respondents reported on which pollutants were targeted by their actions (Figure 7). There was a stronger focus on targeting macroplastics than on targeting microplastics across all categories.



Figure 7

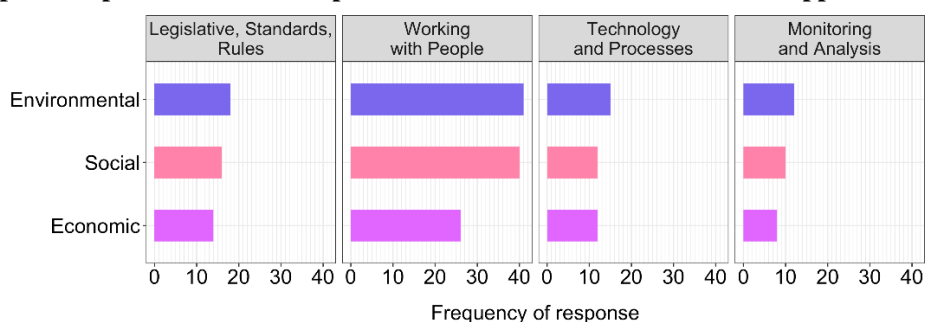
**Types of pollutant targeted by actions, by category.** The “other” category included actions targeting abandoned, lost or otherwise discarded fishing gear (ALDFG), end of lifeboats (ELB), expanded polystyrene (EPS) and extruded polystyrene (XPS) and all waste, rather than plastic only. Respondents were asked to indicate all that applied



25. Types of impacts targeted (environmental, economic or social) are shown in Figure 8 by categories of action. With respect to quantifying the elimination of plastics discharged to the oceans, technology and process actions accounted for just 15 per cent of total submissions to the online survey, but 63 per cent of these reported using specific measurements of success (e.g. kilograms of marine litter collected in the ocean, tons of plastic waste sustainably treated and diverted from landfill, percentage of waste reduction in a city locale). In contrast, for legislation standards and rules, working with people and monitoring and analysis actions, specific measurements of success were reported for only 45 per cent, 49 per cent and 46 per cent of actions, respectively.

Figure 8

**Types of impacts evaluated. Respondents were asked to indicate all that applied**



### E. Funding sources and partnerships

26. Public finance played an important role in financing actions, with private sector finance and voluntary donations also contributing (Table 2). The private sector in particular financed working with people actions, which mainly involved awareness-raising activities (33/35 actions) and education (25/35). Twenty-two of the 35 actions funded by the private sector were environmental clean-ups. In contrast, four actions that received private sector finance targeted raw material and four targeted design.

27. In terms of working with partners, 82 working with people actions were carried out with partners, compared with 34 in the legislative, rules and standards category, 25 in technology and processes and 27 in monitoring and analysis. A small number of actions were reported to have no partners and for 16 partner involvement was reported as not applicable. Looking a little deeper into this data, small and medium-sized enterprises (SMEs) were reported as responsible for actions (n = 27) more frequently than larger corporations.

Table 2  
**Funding types by category of actions. Respondents were asked to choose all that applied**

	<i>Legislative, rules and standards</i>	<i>Working with people</i>	<i>Technology and processes</i>	<i>Monitoring and analysis</i>	<i>Total</i>
Crowdfunding	1	6	1	1	9
Voluntary donations	8	25	6	4	43
Public financing	25	39	15	12	91
Private sector	5	35	11	5	56
Mixed	7	14	8	3	32
All of the above	0	2	3	1	6
Not applicable	10	5	3	7	25
Other	1	16	2	8	27

## F. Overview of actions reported through narrative submissions

28. The stock-taking data reported above is a first attempt to categorize and characterize current actions using more quantitative data. However, it needs to be seen alongside other, more narrative submissions which used the format of a text template originally used by the Group of 20 for narrative reporting. In addition, the G20 Ministerial Meeting on Energy Transitions and Global Environment for Sustainable Growth collected member country narratives on actions.

### The narrative submissions

29. As part of the current stock-taking exercise, 63 narrative submissions were received via the narrative submission route: 26 from UN Member States (Figure 9), 24 from major groups and stakeholders, two from intergovernmental organizations and 11 from UN entities, such as UNEP, UNIDO. An additional 13 narratives reported to the G20 were also included in the stock-taking<sup>9</sup>.

Figure 9

**Location of narrative submissions by UN region. The map is intended to visualize geographically the locations that reported to the stock-taking survey. The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries**



30. The narrative submissions provide details of actions presented as narratives on **Policy Frameworks, Measures, Achievements and Best Practices**.

<sup>9</sup> For all narrative submissions and a list of the current status of submissions, refer to <https://g20mpl.org/> and <https://papersmart.unon.org/resolution/stocktaking-submissions>

31. Preliminary results from the narrative submissions show that Member States continue to update and develop their legislation, policies, standards, rules and strategies on marine plastic litter. National frameworks dominate these approaches. The European Union (EU) Marine Strategy Framework Directive (MSFD), however, was a frequently referenced framework (referred to in nine Member State submissions) for European ministries which is translated into their national frameworks. The narrative submissions also reported additions to national frameworks (such as those detailed in Table 3). New policies often relate to waste management and resource circulation.

Table 3

**Examples of post-2018 policy frameworks**

<i>Member State</i>	<i>Policies, post January 2018</i>
Australia	National Waste Policy (2018),
Brazil	National Plan to Combat Marine Litter (2019)
Finland	Reduce and Refuse, Recycle and Replace – A Plastics Roadmap for Finland (2018) Finnish Marine Strategy, including Monitoring Programme (2014-2020) Programme of Measures (2016-2021) Updated status assessment of the Finnish marine environment (2018) with targets that guide towards good environmental status, GES (2018-2024).
France	Biodiversity plan: Target – “0 plastic reaching the sea in 2025” National Roadmap against Marine Litter 2019-2025, Pending law on circular economy with a chapter devoted to plastics.
Germany	The Federal Environment Ministry’s five-point (November 2018) plan for less plastic and more recycling.
Indonesia	Indonesian National Policy and Strategy on Solid Waste Management 2018-2025. Presidential Regulation No 15 2018 Citarum River Pollution and Degradation. Waste to energy projects (2018). National Plan of Action for Combating Marine Litter 2018-2025.
Japan	National Action Plan for Marine Plastic Litter (formulated in 2019).
Republic of Korea	The 3rd National Marine Litter Management Plan (2019-2023) (2019) Framework Act on Resources Circulation (2018) The 1st National Resource Circulation Plan (2018-2027) 2018
South Africa	Western Indian Ocean Regional Action Plan on Marine Litter (2018).
Spain	Spanish Marine Strategies November 2018.
Russia	Russia National Project “Environment” (approved in 2018 by the Russian Government).
Thailand	20-Year Pollution Management Strategy: Roadmap to tackle plastic waste 2018-2030. Pollution Management Plan 2017-2021. Master Plan on Waste Management 2016-2021, Plastic Debris Management Plan.
United Kingdom	The United Kingdom has added to its 25 year environment plan (since January 2018) to include bans on plastic drinking straws, cotton buds and stirrers as well as plastic bag charges; Fisheries Bill; 41 new Marine Conservation Zones. December 2018 Resources and Waste Strategy. British-Irish Council 2019 action on marine litter. Department for International Development (Dfid) Waste Pilot Programme and Technical Assistance Facility (TAF) Pilot June 2018-2021.

32. Thirty submissions reported **bans** affecting single-use plastics (e.g. bags and straws, cotton buds) and/or microplastics (e.g. microbeads in cosmetics). From 1 January 2018 France banned cosmetic products for exfoliation or cleansing containing solid plastic particles. Guyana made known in 2018 its intention to institute a ban on the importation, manufacture, distribution and use of single-use plastics, with effect from January 2021. This will target plastic carrier bags, straws, cups, plates, spoons forks and knives. Thailand established a ban on single-use plastic bags starting in January 2020. The Netherlands, under the EU Single Use Plastics (SUP) Directive, started the process to restrict the use of intentionally added microplastics in 2018. The Danish national plastic action plan sets out 27 initiatives, such as bans on handing out free carrier bags.

33. **Waste management** was mentioned by 50 Member States and UN entities’ narratives. For example, the Belgian (Flemish) action plan focuses on all sources of waste, land, shipping, offshore activities, aquaculture, rivers, waterways and ports, plastics and microplastics, and beach litter. Enhancement of management of land-based sources to build waste filtering ‘curtains’ at rivers and

estuaries is detailed in the Netherland's narrative. Italy reported the signing of agreements for the management of waste found on the seabed of ports and marine protected areas.

34. Seven submissions specifically referred to **EPR** (extended producer responsibility) schemes and 25 referred to taking a **circular economy** approach.

35. The use of **incentives** or **disincentives** was reported in 11 submissions from Member States and UN entities, with incentives for local governments, rewards systems for fishing/shipping communities based on their voluntary efforts to address marine debris (Republic of Korea), and tax incentives for the avoidance of plastic in packaging (Germany, Guyana).

36. **Capacity building** actions were reported in 46 submissions. Education, awareness-raising, workshops, conferences, behavioural change, information campaigns, community engagement, citizen science, creative events, stakeholder participation and citizen science projects were widely reported. France has a citizen science platform on marine litter to identify the marine litter. New Zealand has a system whereby the public can record details about litter through the Marine Debris Tracker to both monitor work and see the results, as well as where the public can effectively fill data gaps. There is also a citizen science project in New Zealand for sampling and analysing plastic in urban streams. In the United States, for example, a citizen science project is enabling a rich picture to be compiled of the extent, type and brand of plastic litter along the Mississippi River.

37. In terms of the **environmental zone** and the **life cycle phase**, shoreline and beach clean-ups, along with actions taken on land and along rivers (such as waste management and recycling) were frequently reported.

38. Several **monitoring actions** are described in the submissions from Member States and UN entities, with 32 mentions of monitoring assessments and protocols, harmonization and development of methods and indicators, and monitoring of coastlines and specific hotspots.

39. Member States reported on their **achievements**. Preliminary analysis shows the types of achievements typically reported were quantifiable amounts of plastic waste recovered, recycled or collected. Bans on products were widely reported as achievements, as was the introduction of fiscal measures. Awareness-raising actions were also given as examples of achievements from which there is an opportunity to learn. The publication of guidelines, protocols and technical papers was also cited as another achievement. Increases in funding were reported, for example USD 20 million for removal, prevention and research initiatives in the United States.

40. An analysis of the narrative submissions shows that 14 mentioned measures involving **biodegradable plastics**. They included laws and regulations (e.g. those governing waste disposal in the Maldives) or fiscal measures to incentivize the use and importation of biodegradable plastics (e.g. in Guyana). There was also a focus on **knowledge acquisition**. For example, the United Kingdom launched a call for evidence to examine the demand and benefits of the development of standards for bio-based and biodegradable plastics, as well as to better understand their environmental effects. Guidelines for the use of biodegradable products have been produced (Iran, Ethiopia). The Food and Agriculture Organization of the United Nations (FAO) is developing 26 case studies on sustainable bioeconomy interventions to provide policymakers with guidance and lessons learned when implementing bioeconomy activities. The UNEP Mediterranean Action Plan is addressing and clarifying misconceptions about the biodegradability of certain plastics. Several countries reported on how private sector/market forces have responded to their bans on plastic products by providing biodegradable alternative products (e.g. Eritrea, Trinidad and Tobago) and how these forces are engendering a culture of using biodegradable products (e.g. Mexico). Finally, some countries have focussed on a specific sector such as expanding the use and performance of biodegradable fishing gear (e.g. the Republic of Korea).

41. **Best practice**. Not all submissions included a response to the best practice section of the template. However, those which did so provided useful insights. The value of these insights lies in the possibility to cross-reference them with respect to common themes. Suggestions ranged from running campaigns and other activities, to clubs/school activities, to other initiatives (e.g. a Refill Revolution to promote reuse and refill), to how to build a campaign around a forthcoming ban on products so that all stakeholders are involved, communicated with, aware and enabled. Some respondents provided detailed narratives on their learnings, e.g. about the benefits of citizen science programmes through which data on the quality and quantity of clean-ups can be collated, guidelines shared, and links made between NGO's and interested members of the public.

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**G. Comment on the submissions**

42. Submissions were made using a number of routes (see Figure 1). Some respondents did not use the survey or narrative framework, but submitted other documentation related to actions taken to reduce marine plastic litter and microplastics. Submissions did not always make clear which actions were new since January 2018. Extra analysis and interrogation will be needed to ensure comparability and to be certain of developments since January 2018.
43. Data submitted via the survey provides better comparability and categorization of actions, allowing for some quantitative analysis.
44. Recognizing that there are other existing actions which have been reported to other organizations, the results of the desk research to summarize this prior work is available in document UNEP/AHEG/2020/4/INF/5. Included are actions undertaken through the Association of Southeast Asian Nations (ASEAN), the Basel, Rotterdam Convention and Stockholm Conventions, the Clean Seas campaign, the Global Partnership on Marine Litter (GPML), the International Maritime Organization (IMO), the Plastic Waste Partnership and the UNEP Regional Seas Programme, among others.
45. Further information and analysis is provided in UNEP/AHEG/4/INF/6.
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