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**Conference of the Parties to the Basel Convention  
on the Control of Transboundary Movements of  
Hazardous Wastes and Their Disposal  
Fifteenth meeting**

Geneva, 26–30 July 2021 and 6–17 June 2022  
Agenda item 4 (b) (v)

**Matters related to the implementation of the Convention:  
scientific and technical matters: further consideration of  
plastic waste**

**Background information related to a possible future assessment  
of the effectiveness of the measures taken under the Basel  
Convention to address plastic waste and to possible further  
activities that could be conducted under the Basel Convention**

**Note by the Secretariat**

As is mentioned in the note by the Secretariat on further consideration of plastic waste (UNEP/CHW.15/10), annex I to the present note set out background information related to a possible future assessment of the effectiveness of the measures taken under the Basel Convention to address plastic waste and to possible further activities that could be conducted under the Basel Convention, revised taking into account the comments received from Parties and observers following the online segment of the twelfth meeting of the Open-ended Working Group. Annex II to the present note sets out draft recommendations on such a possible future assessment and on possible further activities that could be conducted under the Convention. The present note, including its annexes, has not been formally edited.

## Annex I

### **Background information related to a possible future assessment of the effectiveness of the measures taken under the Basel Convention to address plastic waste and to possible further activities that could be conducted under the Basel Convention**

#### **I. Possible future assessment of the effectiveness of the measures taken under the Basel Convention to address plastic waste**

##### **A. Overview of existing mechanisms to assess the effectiveness of multilateral environmental agreements and other international frameworks**

1. Effectiveness evaluations have been conducted in a variety of contexts including for legally binding multilateral environmental agreements (MEAs), non-binding international frameworks and for specific measures or mechanisms within those agreements and frameworks. Some focus on the design of the agreement or framework in question, thereby examining the extent to which an obligation induces changes that support its goals, as well as the extent to which those goals have been achieved as a consequence thereof. Others focus on an assessment of the degree to which the agreement or framework in question is being successfully implemented.

2. An agreement or a framework may be implemented in a very successful manner but still fail to achieve its objectives due to its design; conversely, the design of an agreement may be highly supportive of achieving the objective in question, but a lack of implementation may result in a failure to achieve such objective.

3. The second segment of the fifth session of the United Nations Environment Assembly (UNEA) adopted resolution entitled “End plastic pollution: Towards an international legally binding instrument” by which the Assembly decided to convene an intergovernmental negotiating committee to develop an international legally binding instrument on plastic pollution, including in the marine environment, which could include both binding and voluntary approaches.<sup>1</sup> The resolution specified provisions to be covered, including to specify national reporting, as appropriate; to periodically assess the progress of implementation of the instrument; and to periodically assess the effectiveness of the instrument in achieving its objectives.

4. This section reviews different types of effectiveness evaluations undertaken in the context of various legally binding agreements and non-binding international frameworks so as to draw insights that may be of relevance in considering whether, how and when the Conference of the Parties should assess the effectiveness of measures taken under the Basel Convention to address plastic waste, including microplastics.

##### **1. Strategic framework for the implementation of the Basel Convention**

5. The strategic framework for the implementation of the Basel Convention for 2012–2021 was adopted at the tenth meeting of the Conference of the Parties through decision BC-10/2. It is intended to evaluate the implementation of the Convention, rather than the Convention itself.

6. The strategic framework includes goals, objectives and indicators, such as the number of Parties with national strategies or plans in place to reduce the generation and ensure the environmentally sound management of hazardous and other wastes. The framework foresaw an evaluation, to be conducted through reports prepared by the Secretariat, assisted by Parties, on the continued relevance of and progress in relation to the strategic framework, through the creation of a baseline, as well as a mid-term evaluation considered by the Conference of the Parties at its thirteenth meeting and final evaluation to be considered by the Conference of the Parties at its fifteenth meeting. The baseline was set out in document UNEP/CHW.12/INF/5.

7. At its thirteenth meeting in 2017, the Conference of the Parties decided to forego the mid-term evaluation, due to the low level of responses to the request for information in support of the indicators and a lack of financial contributions for the purpose of retaining a consultant to collect data and prepare the report. In decision BC-13/1, a small intersessional working group was set up to support the Secretariat in preparing the final evaluation. The Secretariat, in consultation with the working group,

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<sup>1</sup> UNEP/EA.5/L.23/Rev.1.

identified relevant sources of information related to the indicators used for the preparation of the final evaluation.<sup>2</sup>

8. Indicators in the strategic framework include specific actions by Parties to support the objectives of the Convention. For example, in assessing the effective implementation of the obligation to prevent and combat illegal trade in hazardous and other wastes under the Convention, the following sub-indicators are included: the number of Parties that develop and execute training programmes for the staff involved and the number of controls and inspections carried out. The objectives of reducing the generation and ensuring the environmentally sound management of waste are measured against several indicators including the number of Parties with national strategies or plans in place to achieve these objectives. Activities by Parties conducted cooperatively, and the number of technical guidelines agreed to under the Convention also serve as indicators.

9. A draft report on the final evaluation of the strategic framework for the implementation of the Basel Convention for 2012–2021, prepared by the Secretariat in consultation with the small intersessional working group and taking into account the comments submitted during and following the online segment of the twelfth meeting of the Open-ended Working Group<sup>3</sup> notes that a lack of data for undertaking this review is a recurrent theme throughout the report. This includes inadequate information from the 2011 baseline and 2019 questionnaires, as well as insufficient data from annual national reports submitted by the Parties.

10. The draft report finds that in some cases, indicators did not accurately reflect the success of implementation. For example, the ongoing success in developing technical guidelines for priority waste streams, for waste management technologies and for specific cases of transboundary movements on a regular basis was not demonstrated by the single indicator of counting the number of technical guidelines. The evaluation recommends that by linking its decisions to the strategic framework, the Conference of the Parties could more easily monitor and measure outcomes.

11. The draft report also finds that assessing progress under the indicators was for some objectives difficult because of a shortage of data due to the administrative and technical capacity of Parties. It recommends that when identifying indicators in the future, it would be useful to have an associated source of the information at the time the indicator is agreed. It further recommends that any future assessment should include more measurable and outcome-based indicators. In addition, some of the objectives and indicators could be more precise, providing greater interconnectivity between each other and with the goals. The current strategic framework finished in 2021 and Parties have not yet decided on a possible future strategic framework.

12. The draft report recommends that should the Conference of the Parties wish to commence work on a future effectiveness evaluation, “it could usefully be aligned with the 2030 Sustainable Development Goals, in particular targets 12.4 and 12.5, and a general 2030 timing to be in sync with that cycle and contribute towards an assessment of whether those targets are met. In doing so, it would allow the Conference of the Parties to consider how the Basel Convention can add value to more sustainable patterns of consumption and production at the global level, including, but not limited to, the idea of a circular economy.”<sup>4</sup>

## **2. Committee Administering the Mechanism for Promoting Implementation and Compliance**

13. In 2002, a mechanism for promoting implementation and compliance with the Basel Convention, operated by a standing subsidiary body, the Committee Administering the Mechanism for Promoting Implementation and Compliance (ICC), was established.<sup>5</sup> Its objective is to assist Parties to comply with their obligations under the Convention and to facilitate, promote, monitor and aim to secure the implementation of and compliance with the obligations under the Convention.

14. The objective is achieved through two procedures: the review of specific issues of implementation, and the review of general issues of implementation. Under the former procedure, the ICC has, over the years, reviewed issues of implementation pertaining to a variety of obligations under the Convention such as the designation of country contacts, the control system for transboundary movements of wastes, national reporting, and preventing and combating illegal traffic. In the case of national reporting, the ICC is mandated to classify compliance performance against specific targets set by the Conference of the Parties.<sup>6</sup> Under the latter procedure, the ICC has, over the years, assisted 19

<sup>2</sup> UNEP/CHW.14/INF/5.

<sup>3</sup> UNEP/CHW/OEWG.12/INF/4/Rev.1.

<sup>4</sup> UNEP/CHW.15/INF/5.

<sup>5</sup> Decision VI/12.

<sup>6</sup> <http://www.basel.int/tabid/8361/Default.aspx>.

Parties and is currently assisting 14 Parties in resolving their implementation and compliance difficulties.<sup>7</sup>

### 3. Other processes under the Basel Convention

15. The Conference of the Parties has also initiated a number of other processes that involve an evaluation of the operation of the Basel Convention or the mechanisms intended to enhance implementation of the Convention, for example the review of the operation of the Basel Convention regional and coordinating centres and the development and review of strategic plans.<sup>8</sup>

16. Furthermore, the Basel Convention includes a provision for effectiveness evaluation. Paragraph 7 of Article 15 of the Convention provides that the Conference of the Parties shall undertake three years after the entry into force of the Convention, and at least six years thereafter, an evaluation of its effectiveness. The evaluation required under paragraph 7 of Article 15 is part of the continuous process of review and evaluation of the effectiveness of the Convention envisaged under paragraph 5 of the same Article.

17. At its third meeting in 1992, three years after the entry into force of the Convention, the Conference of the Parties received a study on the “Evaluation and Effectiveness of the Basel Convention and the Control of Transboundary Movements of Hazardous Wastes and their Disposal”.<sup>9</sup> Having considered that study, the Conference of the Parties adopted decision III/10, by which non-Parties were invited to ratify the Convention to promote its global application, but no subsequent evaluation of the effectiveness of the Basel Convention was carried out.

18. The draft report on the final evaluation of the strategic framework for the implementation of the Basel Convention for 2012–2021,<sup>10</sup> in its overarching main findings, conclusions and recommendations, states “it may be timely for the Conference of the Parties to revisit paragraph 7 of Article 15 of the Convention which asks for an evaluation of the effectiveness of the Convention to take place every 6 years. Since its third meeting in 1995, no such evaluation has taken place. The development of a future strategic framework and/or effectiveness evaluation of the Convention could be launched by the Conference of the Parties, building on the results of this review.” It recommends that “[t]he Conference of the Parties may wish to consider whether to start work on a future strategic framework and/or effectiveness evaluation of the Convention, building upon the main findings, conclusions and recommendations of this report, and making the necessary budgetary allocation.”<sup>11</sup>

### 4. Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

19. Apart from the general mandate given to the Conference of the Parties to keep under continuous review and evaluation the implementation of the Convention,<sup>12</sup> the Rotterdam Convention does not have any mechanisms for evaluating the effectiveness of the Convention nor measures taken under the Convention. The Convention however provides that the Conference of the Parties shall, as soon as practicable, develop and approve procedures and institutional mechanisms for determining non-compliance with the provisions of the Convention and for treatment of Parties found to be in non-compliance.

20. At its ninth meeting, the Conference of the Parties took note of the information on effectiveness evaluation practices under other chemicals and wastes conventions, compiled by the Secretariat as recommended by the intersessional working group on enhancing the effectiveness of the Rotterdam Convention.<sup>13</sup> Furthermore, in its decision RC-9/7, the Conference of the Parties adopted Annex VII on Procedures and Mechanisms on Compliance with the Rotterdam Convention. Similar to the Basel Convention, the Rotterdam Compliance Committee has a dual mandate: to deal with specific submissions relating to the compliance of an individual Party; and to review systemic issues of general compliance. Furthermore, paragraph 28 of Annex VII makes provision for information-sharing with compliance committees under relevant multilateral environmental agreements.<sup>14</sup>

<sup>7</sup> <http://www.basel.int/tabid/2310/Default.aspx>.

<sup>8</sup> UNEP/CHW.9/38.

<sup>9</sup> UNEP/CHW.3/INF.7.

<sup>10</sup> UNEP/CHW/OEWG.12/INF/4/Rev.1.

<sup>11</sup> UNEP/CHW.15/INF/5.

<sup>12</sup> Rotterdam Convention, Article 18, para. 5.

<sup>13</sup> UNEP/FAO/RC/COP.9/INF/22.

<sup>14</sup> <http://www.pic.int/tabid/8446/Default.aspx>.

## 5. Stockholm Convention on Persistent Organic Pollutants

21. According to paragraph 1 of Article 16 of the Stockholm Convention on Persistent Organic Pollutants (POPs), the Conference of the Parties is to periodically evaluate the effectiveness of the Convention. The evaluation includes an assessment of whether the combination of measures adopted by Parties provides, at the aggregate level and a timely improvement in the situation prevailing before the Convention entered into force.<sup>15</sup>

22. The Global Monitoring Plan provides an institutional framework through which information on the levels of POPs in the environment (air, water) and biota (breast milk and blood) is collected.<sup>16</sup> This information and the information submitted by Parties through national reports pursuant to Article 15 on the measures they have taken to implement the provisions of Convention provide the main data for the effectiveness evaluation.<sup>17</sup>

23. The effectiveness evaluation of the Stockholm Convention is guided by a framework<sup>18</sup> and is conducted in two stages. The first stage consists of a compilation of information by the Secretariat to support the evaluation. In the second stage of the process, the effectiveness evaluation committee established by the Conference of the Parties evaluates the available information to assess the effectiveness of the Convention.

24. The evaluation is based on process and outcome indicators as described in the framework. Process indicators assess implementation such as the domestic adoption of legal and administrative measures or the development of national implementation plans. Outcome indicators measure the desired impact such as reductions in the quantities of POPs released. The evaluation is conducted every six years and the most recent evaluation was conducted at the eighth meeting of the Conference of the Parties in 2017.<sup>19</sup> The Conference of the Parties will undertake the next effectiveness evaluation at its eleventh meeting in 2023.

25. The Convention also includes provisions for review of progress in meeting the objectives of the Convention for specific chemicals such as DDT, PCB, brominated diphenyl ethers, perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride, as well as the effectiveness of the financial mechanism.

## 6. Minamata Convention on Mercury

26. The Minamata Convention on Mercury requires the Conference of the Parties to evaluate its effectiveness beginning no later than six years after the date of entry into force of the Convention and periodically thereafter.<sup>20</sup> A report of the ad hoc technical expert group sets out the proposed framework for the effectiveness evaluation, including proposed indicators.<sup>21</sup>

27. According to the framework, the effectiveness evaluation is to be organized around the following questions: whether Parties have taken actions to implement the Convention; whether those actions have resulted in changes in mercury supply, use, emissions and releases into the environment; whether those changes have resulted in changes in levels of mercury in the environment that can be attributed to the Convention; and to what extent existing measures under the Convention are meeting the objective of protecting human health and the environment from mercury.<sup>22</sup>

28. The evaluation should be informed by comparable monitoring data on the presence and movement of mercury and mercury compounds in the environment as well as trends in levels of mercury and mercury compounds observed in biotic media and vulnerable populations.<sup>23</sup> Proposed indicators include changes in supply, demand, emissions and releases of mercury.<sup>24</sup> Sources of information include reports and other monitoring information provided to the Conference of the Parties, national reports, information and recommendations provided by the Implementation and Compliance Committee, and reports and other relevant information on the operation of the financial assistance, technology transfer and capacity-building arrangements put in place under the Convention.

<sup>15</sup> UNEP/POPS/COP.9/20/Add.1.

<sup>16</sup> Decision SC-8/19.

<sup>17</sup> Stockholm Convention, Article 16, para. 3.

<sup>18</sup> Decision SC-9/17, UNEP/POPS/COP.9/20/Add.1.

<sup>19</sup> UNEP/POPS/COP.8/INF/40.

<sup>20</sup> Minamata Convention, Article 22, para.1.

<sup>21</sup> UNEP/MC/COP.3/14.

<sup>22</sup> UNEP/MC/COP.3/14.

<sup>23</sup> Minamata Convention, Article 22, para.2.

<sup>24</sup> UNEP/MC/COP.3/14.

The ad-hoc technical expert group proposed that after information is identified, compiled, and synthesized, and a study on attribution is conducted, the Effectiveness Evaluation Committee would integrate the information to formulate its findings for the consideration of the Conference of the Parties. The ad hoc technical expert group has also proposed options for a future evaluation cycle of 6, 8 and 10 years.

29. In its decision on the arrangements for the first effectiveness evaluation of the Minamata Convention, the Conference of the Parties, at its third meeting, invited Parties to submit views on the indicators for the effectiveness evaluation. Notes by the secretariat for consideration by the Parties at its fourth meeting provide summaries of those views<sup>25</sup> and recommendations for indicators for effectiveness evaluation,<sup>26</sup> and draft guidance on monitoring of mercury and mercury compounds to support evaluation of the effectiveness of the Minamata Convention.<sup>27</sup>

## 7. Convention on Biological Diversity

30. Article 4 of the Convention on Biological Diversity stipulates that the Conference of the Parties shall keep under review the implementation of the Convention. At its sixth meeting, the Conference of the Parties adopted the text of the Strategic Plan for the Convention on Biological Diversity. For this Strategic Plan, targets are developed (e.g., targets for 2011–2020 are known as the “Aichi Targets”) and used to measure the effectiveness of the implementation, as opposed to the design of the Convention itself.<sup>28</sup> One of the targets relevant to plastic waste was Target 8: “by 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.”

31. The Executive Secretary has proposed headline indicators of the monitoring framework for the post-2020 global biodiversity framework. The draft includes Target 7, aimed at the reduction of pollution, by, among other things, “eliminating the discharge of plastic waste.”<sup>29</sup> Plastic debris density is a proposed indicator for Target 7.

32. Another effectiveness review mechanism within the Convention is in the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, and the first effectiveness review includes elements such as the extent of implementation of the provisions of the Protocol and the establishment of a reference point to measure effectiveness.<sup>30</sup>

33. Finally, a review mechanism also exists under the Convention’s Cartagena Protocol on Biosafety. Review of the Protocol was combined with an evaluation of the Strategic Plan for the assessment of the period of 2011–2020.<sup>31</sup>

## 8. Montreal Protocol on Substances that Deplete the Ozone Layer

34. The Montreal Protocol on Substances that Deplete the Ozone Layer requires Parties to assess, every four years, the “control measures... on the basis of available scientific, environmental, technical, and economic information.”<sup>32</sup> The Scientific Assessment Panel, the Environmental Effects Assessment Panel, and the Economic Assessment Panel prepare periodic assessment reports. The secretariat also provides a synthesis of these assessment reports.<sup>33</sup> The last Scientific Assessment of Ozone Depletion was published in 2018 and the next is scheduled for 2022. Parties have tightened regulatory controls significantly on the basis of these reviews.<sup>34</sup> However, because these reports are scientific and technical in nature, they do not assess institutional effectiveness.

## 9. Paris Agreement under the United Nations Framework Convention on Climate Change

35. Article 7.2 (d) of the United Nations Framework Convention on Climate Change (UNFCCC) stipulates that the Conference of the Parties assess, on the basis of all information made available to it in accordance with the provisions of the Convention, the implementation of the Convention by the

<sup>25</sup> UNEP/MC/COP.4/18.

<sup>26</sup> UNEP/MC/COP.4/18/Add.1.

<sup>27</sup> UNEP/MC/COP.4/INF/12; UNEP/MC/COP.4/INF/25; UNEP/MC/COP.4/18/Add.2

<sup>28</sup> Conference of the Parties to the Convention on Biodiversity, decisions VI/26 and X/2.

<sup>29</sup> CBD/WG2020/3/3/Add.1.

<sup>30</sup> CBD/NP/MOP/DEC/2/4. Decision adopted by the Parties to the Nagoya Protocol on access and benefit-sharing 2/4 Assessment and review of the effectiveness of the Protocol (Article 31).

<sup>31</sup> CBD/SBI/3/3/Add.1.

<sup>32</sup> Montreal Protocol, Article 6.

<sup>33</sup> UNEP/OzL.Pro.31/8 29.

<sup>34</sup> UNEP (2001). Reporting and review institutions in 10 multilateral environmental agreements. <https://wedocs.unep.org/handle/20.500.11822/8139>.

Parties, the overall effects of the measures taken pursuant to the Convention, in particular environmental, economic and social effects as well as their cumulative impacts and the extent to which progress towards the objective of the Convention is being achieved.

36. Article 14 of the Paris Agreement stipulates that the Conference of the Parties serving as the meeting of the Parties to the Agreement shall periodically take stock of the implementation of the Agreement to assess the collective progress towards achieving the purpose of the Agreement and its long-term goals.<sup>35</sup> This process is referred to as the global stocktake.

37. The first global stocktake is scheduled to conclude in 2023 and every five years thereafter, unless otherwise decided by the Conference of the Parties serving as the meeting of the Parties to the Agreement. As per decision 1/CP.21, paragraphs 99 and 101, the ad hoc working group on the Paris Agreement (APA), is currently identifying additional sources of input for, and developing modalities of, the global stocktake. In addition, the Subsidiary Body for Scientific and Technological Advice (SBSTA) was requested to provide to the APA advice on how the assessments of the Intergovernmental Panel on Climate Change (IPCC) can inform the global stocktake.<sup>36</sup>

## 10. Strategic Approach to International Chemicals Management

38. The Strategic Approach to International Chemicals Management (SAICM) is a global voluntary policy framework. It has conducted three implementation reviews, guided by 20 process-based indicators<sup>37</sup> for which an on-line questionnaire was designed to solicit data. The responses to the questionnaire were low and decreased between the second and third review.

39. SAICM also commissioned an independent evaluation of the Strategic Approach from 2006 to 2015, based on a literature review of SAICM and academic papers, online surveys, focus group discussions and one-on-one interviews.<sup>38</sup> The independent assessment was qualitative in nature and discussed the following topics: the impact of the Strategic Approach; strengths, weaknesses and gaps in implementing the Strategic Approach; progress towards targets; and efficacy of the institutional arrangements within the voluntary multi-sectoral and multi-stakeholder approach of the Strategic Approach. The independent review found that the earlier implementation reviews had a number of weaknesses, including methodological issues related to a lack of clarity on the questionnaires and the fact that the 20 indicators are outputs based, with the absence of a complementary set of indicators that assesses outcome and impact.

## B. Consideration of a possible future assessment of the effectiveness of the measures taken under the Basel Convention to address plastic waste

40. Following the online segment of the twelfth meeting of the Open-ended Working Group, in response to the invitation to provide comments on the information set out in document UNEP/CHW/OEWG.12/INF/20,<sup>39</sup> the European Union, Norway and the United Kingdom of Great Britain and Northern Ireland (UK) indicated that it was premature to begin consideration of an effectiveness evaluation of the measures taken under the Basel Convention to address plastic waste. The UK noted that it is useful to understand the scope and objectives for any potential future evaluation and that an effectiveness evaluation can be taken only after an appropriate amount of time has passed to allow the measures to be implemented and generate results.

41. Colombia noted that it was important to have clear objectives and indicators before effectiveness can be evaluated. While it is important to avoid conducting an evaluation prematurely, the evaluation can be more informative if the objectives, indicators and sources of information for assessing effectiveness are identified at the outset. If the goals to be measured are clearly identified, this can promote activities that more directly support the goals. If appropriate indicators are established, and it is confirmed that data exists to measure these indicators, this can help ensure that the information being collected is relevant to the overall objectives and that it is reflective of the progress that is being made towards those objectives. Moreover, this would allow establishment of a baseline.

42. Even after objectives, indicators and sources of information have been identified, the process of conducting an effectiveness evaluation can take many years. To conduct a useful effectiveness

<sup>35</sup> United Nations (2015). Paris Agreement. [https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf).

<sup>36</sup> Decision 1/CP.21, paragraph 100. United Nations Framework Convention on Climate Change (2020). Global Stocktake (referred to in Article 14 of the Paris Agreement). <https://unfccc.int/topics/global-stocktake>.

<sup>37</sup> SAICM/ICCM.2/15, annex III.

<sup>38</sup> SAICM/IP.3/9.

<sup>39</sup> <http://www.basel.int/tabid/8575/Default.aspx>.

evaluation, it is necessary to begin taking steps to define the process well in advance of the expected start of the evaluation process.

43. Evaluations of effectiveness have provided a structural framework through which Parties can consider, for instance, whether the agreement or framework in question achieves its objectives, whether implementation is successful, and whether and which changes may consequently be needed. Despite their limitations, many evaluations have resulted in amendments or new decisions by Parties or other stakeholders designed to improve implementation. Effectiveness evaluations can therefore be advantageous, but many considerations arise in determining how such evaluations could be conducted.

44. To allow for further consideration of possible future assessment of the effectiveness of the measures taken under the Basel Convention to address plastic waste, it may be helpful to consider mechanisms, such as the establishment of an expert group. The following elements could be considered by the group to develop recommendations on how and when the Conference of the Parties should assess the effectiveness of such measures:

**(a) Modalities of the assessment:**

Effectiveness evaluations can be guided by frameworks, which identify the goals, objectives and indicators and set out the process for conducting the evaluation. In the case of MEAs, a subsidiary body is usually charged with evaluating the information, drawing conclusions, and making recommendations to the Conference of the Parties. To assist it in evaluating the information, the subsidiary body may commission reports for this purpose. Terms of reference can provide clarity with respect to the subsidiary body's responsibilities.

Should the Conference of the Parties decide to assess the effectiveness of the measures taken under the Convention to address plastic waste contributing to marine plastic litter and microplastics, such a framework can be developed for possible adoption by the Conference of the Parties. In addition, the Conference of the Parties could consider whether a subsidiary body (existing or new) could assist its task.

**(b) Scope of the assessment:**

The assessment could cover the effectiveness of the amendments adopted in decision BC-14/12, the further actions adopted in decision BC-14/13 and other related decisions; relevant provisions of the Basel Convention; and/or the degree to which Parties have succeeded in implementing these. It could assess either the effectiveness of the nature of these decisions/provisions, the effectiveness of their implementation, or both. The scope can be defined so as to avoid duplication and promote coherence with other efforts to address plastic waste.

**(c) Objective of the assessment:**

The objective of the assessment could be to assess whether the measures taken contributed towards achieving the Convention's objective of protecting human health and the environment against the adverse effects of hazardous wastes and other wastes. It could be dissected further by focusing on more specific objectives, e.g. those listed in decision BC-14/13.

**(d) Indicators for the assessment:**

Effectiveness may be measured according to process indicators and outcome indicators. Process indicators relevant for assessing the effectiveness of measures taken under the Basel Convention to address plastic waste could include the number of legislations or tools developed to control the transboundary movement or to strengthen the environmentally sound management of plastic waste; or the number of members of the Basel Convention Partnership on Plastic Waste working group. Outcome indicators could include the share of plastic waste that is managed in an environmentally sound manner; or the presence of plastics in the terrestrial and marine environments.

**(e) Data and information to be used for the assessment:**

Data to be used for effectiveness evaluations can include scientific, legal, environmental, technical and economic information. Some conventions provide for an institutional framework for the collection of monitoring data, which is used in effectiveness evaluations. Some effectiveness evaluations are also based on other sources of information, including studies conducted specifically for the purpose of the evaluation, reports from compliance reviews, information from monitoring programs, and reports related to the financial mechanism, technology transfer, and capacity building under the agreement or framework.



Information from the Basel Convention national reports could be considered, provided that information specific to plastic waste will be reported by Parties. Data and information collected from other sources such as those relevant to Sustainable Development Goals (SDGs) could also be considered.

**(i) National reporting under the Basel Convention:**

Should the assessment of the effectiveness of the measures taken under the Basel Convention to address plastic waste include, among others, the reduction of the generation of plastic waste, the availability of data could be limited since reporting of waste generation by Parties is optional and Annex II wastes are reported as an aggregate number in national reports.<sup>40</sup> Consideration may be given to how the limited data availability could be addressed in this context. Parties may also wish to consider mechanisms for quantifying plastic waste flows under Annex IX to the Convention.

With respect to a potential assessment of the effectiveness of measures to control transboundary movements of plastic waste, the amendments to Annexes II and VIII adopted by decision BC-14/12 imply that national reports will include data for each import and export of plastic waste falling within the scope of the Convention, including the amount exported/imported, the category, characteristics, destination/origin, any transit country and disposal method. Thus, it will be possible to assess changes in the transboundary movements of plastic waste falling within the scope of the Convention.

The current national reporting format also provides for the transmission of information on disposals which did not proceed as intended; efforts to achieve a reduction of the amount of hazardous wastes or other wastes subject to transboundary movement; information on the measures adopted in the implementation of the Convention; information on disposal options operated; and information on measures undertaken for development of technologies for the reduction and/or elimination of production of hazardous wastes and other wastes. Should specific information with respect to plastic waste be provided, this information could provide additional data for assessing the effectiveness of relevant measures.

The first national reports containing information addressing the new plastic waste entries will be available for the year 2021, to be transmitted to the Secretariat by 31 December 2022, in advance of the sixteenth meeting of the Conference of the Parties in 2023 and could contribute to setting baseline information for an evaluation.

**(ii) National inventories of plastic waste:**

National inventories of plastic waste can be a useful vehicle to gather relevant data. Some of the data can feed into the national reporting. Depending on the scope of the inventories, the inventories may provide information on the amounts and source of plastic waste generated, imports and exports of plastic waste falling under the scope of the Convention, including changes in the respective volumes, disposal operations used.

In response to decision BC-14/10 on national reporting, the Secretariat has developed the draft practical guidance on the development of inventories of plastic waste.<sup>41</sup> The draft guidance draws on three complementary draft tools developed by the Secretariat: 'Plastic put on the market calculation tool' and the 'Plastic waste generated calculation tool', which follow a consumption-lifespan approach; 'Toolkit for developing an inventory of plastic waste', which follows a mass-flow-analysis approach;<sup>42</sup> and 'Methodology to calculate the import and export of plastic waste',<sup>43</sup> which is based on the practical guidance on the development of inventories of plastic waste and the toolkit for developing an inventory of plastic waste.

Various other tools employing different methodologies that could provide useful data have been developed by other entities, for example the 'National guidance for plastic pollution hotspotting and shaping action'<sup>44</sup> developed by UNEP and the International

<sup>40</sup> UNEP/CHW/OEWG.11/INF/22, para. 23.

<sup>41</sup> UNEP/CHW.15/INF/19.

<sup>42</sup> Developed under the project 'Marine litter and microplastics: promoting the environmentally sound management of plastic waste and achieving the prevention and minimization of the generation of plastic waste' (BRS-Norad-1).

<sup>43</sup> Also developed under the BRS-Norad-1 project.

<sup>44</sup> <https://www.unep.org/resources/report/national-guidance-plastic-pollution-hotspotting-and-shaping-action>.

Union for Conservation of Nature (IUCN) and the ‘Waste flow diagram’<sup>45</sup> developed by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

**(iii) Information from the Committee administering the mechanism for promoting implementation and compliance (ICC):**

Information on the implementation of the Convention as it relates to plastic waste can also be available from the work of the ICC. Until now, the ICC’s work to review general issues of implementation and compliance has not been waste-stream specific, but should the Conference of the Parties decide to mandate it to focus its work on the implementation of obligations pertaining to plastic waste, e.g. the control of transboundary movements, adequate legal frameworks, preventing and combating illegal traffic, the ICC would be in a position to provide valuable information on the nature and extent of difficulties faced by Parties to implement their obligations in relation to plastic wastes and on how to overcome them.

**(iv) Data and information collected to measure progress with SDGs:**

Data collected to measure progress with SDG 14 could be useful for assessing the effectiveness of measures taken under the Basel Convention to address plastic waste. Target 14.1 to prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution by 2025, will be measured through indicator 14.1.1 on the index of coastal eutrophication and floating plastic debris density, as informed by indicators such as beach litter, plastic in the sea column, plastic on the seafloor, and plastic ingested by biota.<sup>46</sup> UNEP is preparing two methodologies for assessing marine litter and microplastics, including plastics, entering from land and freshwater systems, which will contribute to national capacity to report on targets 6.3 and 14.1.

Target 12.4 of SDG 12 seeks to achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment. This will be measured by indicator 12.4.1 on the number of Parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement and indicator 12.4.2 on hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment. Target 12.5 seeks to substantially reduce waste generation through prevention, reduction, recycling and reuse which will be measured through indicator 12.5.1 by the national recycling rate and tons of material recycled.

Target 11.6, indicator 11.6.1 of SDG 11 will measure the proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities.

Target 3.9, indicator 3.9.2 of SDG 3 will measure mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene. Depending on the methodology for collecting this data, it could be relevant to an effectiveness review of measures to address plastic waste under the Basel Convention.

**(v) Data and information from other sources:**

Relevant national data is collected by the Regional Seas Programmes.<sup>47</sup> Various guidelines are available for monitoring and assessing marine plastic litter. Information from global models is also relevant, such as the models of plastic patches provided by the European Space Agency and National Aeronautics and Space Administration and the models for beach litter originating from national land-based sources provided by UNEP Ocean Parcels.<sup>48</sup> As with other indicators, a challenge would lie in assessing the degree

<sup>45</sup> <https://www.giz.de/expertise/html/62153.html>.

<sup>46</sup> UNEP (2018). Global manual on ocean statistics, towards a definition of indicator methodologies. [https://wesr.unep.org/media/docs/statistics/egm/colombia\\_ocean\\_statistics\\_global\\_manual\\_ocean\\_statistics\\_final\\_draft.pdf](https://wesr.unep.org/media/docs/statistics/egm/colombia_ocean_statistics_global_manual_ocean_statistics_final_draft.pdf); UN STATS, metadata for 14.1. <https://unstats.un.org/sdgs/metadata/files/Metadata-14-01-01.pdf>.

<sup>47</sup> UNEP/IOC (2009). Guidelines on Survey and Monitoring of Marine Litter. <https://wedocs.unep.org/handle/20.500.11822/13604?jsessionid=3F788FBEBD2D874DD41230B69F6C0D2A>.

<sup>48</sup> <http://oceanparcels.org>; <http://topios.org>.

to which a potential decrease in the presence of plastics in the marine environment could be attributed to the measures taken under the Basel Convention.

The Convention on Biological Diversity is considering a new target to reduce by 2030 pollution from excess nutrients, biocides, plastic waste and other sources.<sup>49</sup> Contributions to this target or its indicators may provide useful information for the Basel Convention.

**(vi) Harmonization of data:**

Data management can be strengthened with better harmonization. UNEA recommended indicators to harmonize monitoring, reporting and assessment methodologies, taking into account key sources of marine litter, including plastic litter and microplastics in cooperation with relevant international organizations.<sup>50</sup> The Global Chemicals Outlook II provided recommendations for developing a coherent and results-oriented global indicators and reporting framework.<sup>51</sup> As an example of data harmonization at the regional level, the European Commission has developed the European Marine Observation and Data Network (EMODnet), a platform that includes data on marine litter, specifically from the shoreline, seafloor (trawl surveys) and sea surface (microplastics). The Joint Group of Experts on Scientific Aspects of Marine Environmental Protection (GESAMP), through its Guidelines for the Monitoring and Assessment of Plastics Litter in the Ocean, aims to provide commonly agreed methodologies for measurements to generate sub- indicators on sources, distribution and quantities, and impacts of marine litter.<sup>52</sup>

**(f) Periodicity and timelines:**

Periodicity and timelines could be after a sufficient period of time has passed since the measures to be assessed has been in place, for example 4 to 6 years, and once relevant data is available e.g. from national reporting.

Some of the potential advantages of conducting evaluations on a periodic basis are that the data generated can be compared over time and the institutional frameworks developed for conducting the assessment can be strengthened over time based on their experience. In addition, a consistent practice of reflection may strengthen accountability with regard to compliance with relevant provisions. Some disadvantages of a periodic evaluation could be the added time and expenses required to conduct the multiple evaluations and the potential for decreasing participation in the process over time.

**(g) Coordination with other relevant review processes:**

A possible future assessment would benefit from building on, avoiding duplication of efforts with, and being complementary to the strategic framework, if mandated, the work of the ICC, measuring of progress with SDGs, and the mechanisms to be developed under the new international legally binding instrument on plastic pollution<sup>53</sup> to assess the progress of implementation of the instrument and to periodically assess the effectiveness of the instrument in achieving its objectives as well as its national reporting.

<sup>49</sup> CBD/WG2020/REC/2/1.

<sup>50</sup> UNEA resolution 4/6, para 1(c).

<sup>51</sup> UNEP (2019). Global Chemicals Outlook II, p. 647. <https://www.unep.org/explore-topics/chemicals-waste/what-we-do/policy-and-governance/global-chemicals-outlook>.

<sup>52</sup> <http://www.gesamp.org/publications/guidelines-for-the-monitoring-and-assessment-of-plastic-litter-in-the-ocean>.

<sup>53</sup> UNEP/EA.5/L.23/Rev.1.

## II. Possible further activities that could be conducted under the Basel Convention in response to developments in scientific knowledge and environmental information related to plastic waste as a source of land pollution, marine plastic litter and microplastics

### A. Recent scientific knowledge and environmental information about plastics

45. This section provides a brief and non-exhaustive description of selected developments in scientific knowledge and environmental information related to plastic waste as a source of land pollution, marine plastic litter and microplastics.

#### 1. Generation, sources and fate of plastic waste

46. According to the information compiled in the reports ‘Drowning in Plastics – Marine Litter and Plastic Waste Vital Graphics’<sup>54</sup> and ‘From Pollution to Solution: A global assessment of marine litter and plastic pollution’,<sup>55</sup> approximately 9.2 billion tonnes of plastics have been produced since 1950. Only about 30% of these plastics remain in use, resulting in the generation of some 6.9 billion tonnes of primary plastic waste around the world to date. In 2018, more than 343 million tonnes of plastic waste was generated. Solid waste generation per capita is 0.6–1.0 kg/day in low-income countries, 0.8–1.5 kg/day in middle income countries, and 1.1–4.5 kg/day in high-income countries. A large proportion of post-consumer plastic waste consists of plastic packaging.

47. Most marine debris and plastics come from land-based sources, including mismanaged waste streams, accidental production losses, and waste from transportation, wastewater treatment and agriculture.<sup>56</sup> As outlined in a report by the GESAMP, macro- and microplastics are generated from numerous diffuse as well as point sources, namely plastic producers, fabricators and recyclers in terms of producers/converters; agriculture, fisheries, aquaculture, construction, transportation, shipping, tourism, textile and sport in terms of economic sectors; packaging, cosmetics and personal care products, and textiles and clothing in terms of individual consumers; and solid waste and wastewater in terms of waste management. Entry points to the ocean include freshwater systems, wastewater run-offs and littering around the coastline, losses or discards at sea and atmospheric transport.

48. Microplastics persist in the environment for a long time because they are resistant to environmental degradation due to high molecular weights and rare occurrence of microbial species that can metabolise polymers. For example, some petroleum-based synthetic polymers can take hundreds of years to degrade.<sup>57</sup> Additives can make plastic even more resistant to degradation.

49. A large portion of the world population (at least 2 billion people) may lack access to solid waste collection systems. Global recycling rates for plastic waste have historically been low. Less than 10% of the plastic waste generated globally between 1950 and 2017 is estimated to have been recycled. Of the remainder, 14% has been incinerated while the remaining 76% has been disposed of in landfills or dumps or released into the environment, including the oceans. In 2017, around 21% of non-fibre plastics globally were recycled, while 26% were incinerated.<sup>58</sup> A study estimated that in 2016 almost half the plastic waste recycled (14.1 million tonnes) was not processed in-country, but exported by 123 countries to other locations,<sup>59</sup> although the amount of plastic waste being transported has decreased in recent years.

50. Plastics have been found throughout the marine environment, along coasts, in the open ocean, and in deep ocean trenches across the Pacific Rim, as deep as 10,890 meters below sea level.<sup>60</sup>

<sup>54</sup> UNEP (2021). Drowning in Plastics – Marine Litter and Plastic Waste Vital Graphics. <https://www.unep.org/resources/report/drowning-plastics-marine-litter-and-plastic-waste-vital-graphics>.

<sup>55</sup> UNEP (2021). From Pollution to Solution: A global assessment of marine litter and plastic pollution. <https://www.unep.org/resources/pollution-solution-global-assessment-marine-litter-and-plastic-pollution>.

<sup>56</sup> Ibid.

<sup>57</sup> UNEP (2020). An Assessment Report on Issues of Concern: Chemicals and Waste Issues Posing Risks to Human Health and the Environment. <https://wedocs.unep.org/bitstream/handle/20.500.11822/33807/ARIC.pdf?sequence=1&isAllowed=y>.

<sup>58</sup> UNEP (2021). Drowning in Plastics – Marine Litter and Plastic Waste Vital Graphics; UNEP (2021). From Pollution to Solution: A global assessment of marine litter and plastic pollution.

<sup>59</sup> Brooks et al. (2018). The Chinese import ban and its impact on global plastic waste trade. *Science Advances*. 4(6), 0131. <https://www.science.org/doi/10.1126/sciadv.aat0131>.

<sup>60</sup> Jamieson et al. (2019). Microplastics and synthetic particles ingested by deep-sea amphipods in six of the deepest marine ecosystems on Earth. *Royal Society open science* 6.2: 180667. <https://royalsocietypublishing.org/doi/10.1098/rsos.180667>.

Henderson Island in the Pacific Ocean, which is 5000 km away from any major source of pollution and 115 km away from the nearest human settlement of around 40 people, has the highest density of plastic debris in the world.<sup>61</sup>

51. Microplastics can travel through the atmosphere, ending up in remote, sparsely inhabited areas,<sup>62</sup> such as the surface of an Italian glacier,<sup>63</sup> in lakeshore sediment in high altitude lakes of the Tibet Plateau,<sup>64</sup> on floating ice in the Arctic,<sup>65</sup> and in more than 90 per cent of rainwater samples taken from across the state of Colorado in the United States of America, including in a national park at more than 3,000 metres high.<sup>66</sup> Microplastics are also found in the air in indoor environments.

52. Microplastic can also be ingested and be carried by migrant species and also be transferred through the food chain.<sup>67</sup> Plastic debris has been found in the digestive system of aquatic organisms, including 100 per cent of marine turtle species, approximately 40 per cent of seabird species and 50 per cent of marine mammal species. In one laboratory study, nanoparticles passed from algae to zooplankton to fish, where they entered the brain and caused behavioural changes. Microplastics are also found in all types of food such as sugar, honey, bread, dairy products, and beer.<sup>68</sup> It is estimated that people consume 5 grams of plastic per week. The smallest plastic particles end up in the human bloodstream. The extent to which plastic waste has pervaded the environment provides a strong basis for continuing activities to address this risk.<sup>69</sup>

53. Greenhouse gas emissions result from various plastic end-of-life waste management options, including incineration, chemical recycling, and converting plastic to fuel.<sup>70</sup>

## 2. Plastic additives

54. The environmentally sound management of plastic waste is complicated by the fact that some plastics include additives that may be hazardous to the environment and/or to human health, including POPs, such as certain brominated flame retardants and short-chain chlorinated paraffins.<sup>71</sup> In addition, plastic debris can also adsorb POPs such as PCB, DDT, dioxins and furans.<sup>72</sup> Recycled products can leach toxic additives from the original plastics. Research has documented that additives can migrate via food contact materials.<sup>73</sup> According to model calculations, around 2 % of plastic additives are emitted to the environment every year.<sup>74</sup>

55. According to UNEP, assessing the adverse human health effects of additives is challenging due to constantly changing patterns of production and the confidentiality of the composition of plastics.<sup>75</sup> An OECD policy paper outlined that the lack of information and transparency regarding the

<sup>61</sup> UNEP/POPS/POPRC.16/4.

<sup>62</sup> Allen et al. (2019). Atmospheric transport and deposition of microplastics in a remote mountain catchment. *Nature Geoscience* 12.5: 339. <https://www.nature.com/articles/s41561-019-0335-5>.

<sup>63</sup> Ambrosini et al. (2019). First evidence of microplastic contamination in the supraglacial debris of an alpine glacier. *Environmental Pollution* 253: 297-301.

<sup>64</sup> Zhang et al. (2016). Microplastic pollution of lakeshore sediments from remote lakes in Tibet plateau, China. *Environmental pollution* 219: 450-455.

<sup>65</sup> Bergmann et al. (2019). White and wonderful? Microplastics prevail in snow from the Alps to the Arctic. *Science advances* 5.8: eaax1157.

<sup>66</sup> Wetherbee et al. (2019). It is raining plastic. No. 2019-1048. US Geological Survey.

<sup>67</sup> <https://wedocs.unep.org/bitstream/handle/20.500.11822/33807/ARIC.pdf?sequence=1&isAllowed=y>

<sup>68</sup> Draft Assessment on Sources, Pathways and Hazards Of Litter Including Plastic Litter And Microplastics Pollution.

<sup>69</sup> Science Advice for Policy by European Academies (2020). A scientific perspective on microplastics in nature and society.

<sup>70</sup> Takada and Bell (2021). Plastic Waste Management Hazards. International Pollutants Elimination Network (IPEN).

<sup>71</sup> GESAMP (2019). Guidelines for the Monitoring and Assessment of Plastic Litter in the Ocean, Table 2.2. <http://www.gesamp.org/publications/guidelines-for-the-monitoring-and-assessment-of-plastic-litter-in-the-ocean>.

<sup>72</sup> UNEP (2016). Marine plastic debris and microplastics - global lessons and research to inspire action and guide policy change. <https://wedocs.unep.org/handle/20.500.11822/7720>; UNEP/CHW/OEWG.11/INF/22.

<sup>73</sup> Hahladakis et al. (2018). An overview of chemical additives present in plastics: Migration, release, fate and environmental impact during their use, disposal and recycling. *Journal of Hazardous Materials*, 344, pp. 179-199.

<sup>74</sup> UNEP/POPS/POPRC.16/4.

<sup>75</sup> UNEP (2017). Combating marine plastic litter and microplastics: An assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches. UNEP/AHEG/2018/1/INF/3.

use of additives in some plastic waste streams is a barrier to increased recycling of those products.<sup>76</sup> Human exposure to mixtures of additive chemicals may cause non-linear effects and long-term, low-level exposures may result in a range of diseases that are not easily detected or attributed to any one cause.<sup>77</sup>

56. Recent scientific research has also addressed the occurrence and impacts of plastic additives in the environment.<sup>78</sup> The European Chemicals Agency has identified over 400 plastic additives and compared the release potential of some of them.<sup>79</sup> Research also focuses on new additives, such as those with antimicrobial properties.<sup>80</sup> Another study found that over 3,000 chemicals are potentially associated and over 900 chemicals are likely associated with plastic packaging, with 188 of these chemicals identified as most hazardous.<sup>81</sup>

57. Additives can also be problematic if waste is burnt, especially when burning is uncontrolled or takes place in low-technology incinerators, as is common in many developing countries. Incomplete combustion can cause emissions of hazardous substances such as acid gases and ash which can contain POPs such as dioxins.<sup>82</sup>

58. The seventeenth meeting of the POPs Review Committee of the Stockholm Convention considered a number of chemicals that are plastic additives or chemicals used in the manufacture of plastics, including UV-328, a plastic stabilizer and Dechlorane Plus, a brominated flame retardant. Having developed risk profiles in accordance with Annex E to the Convention, the Committee concluded that those chemicals are, as a result of their long-range environmental transport to lead to significant adverse human health or environmental effects such that global action is warranted.<sup>83</sup> The varied pathways by which plastic debris could be transported throughout the world raised new considerations about how the criteria of potential for long-range transport was defined.

59. To further consider the global governance landscape of the management of substances of concern used in plastics, the Secretariat is coordinating a project entitled “Global governance on chemicals in plastics” with financial support provided by the Government of Norway and in cooperation with the University of Wollongong. The project aims at, among others, to outline options how an international legally binding agreement on plastic pollution could address substances of concern used as additives in plastics or in processes across the life cycle of plastics, including possibilities for enhancing cooperation and coordination among existing instruments.

### 3. Effects on human health and ecosystems

60. The GESAMP reported impacts of microplastics on organisms at many levels of biological organization.<sup>84</sup> Microplastics can present a physical hazard, but can also be a source of hazardous chemicals to organisms. Ingested or inhaled microplastics may harm human health through their physical presence, chemical composition, or as vectors for pathogenic or antimicrobial resistant bacteria.<sup>85</sup>

61. The World Health Organization (WHO) conducted an assessment on microplastics in drinking water. The report noted “if plastic emissions into the environment continue at current rates, there may be widespread risks associated with microplastics to aquatic ecosystems . . . with potentially concurrent increases in human exposure.” The report identified mishandled plastic wastes as a source of microplastics into fresh water but focuses on surface run-off and wastewater effluent as the main inputs of microplastics into fresh water. The report also identified preventive measures to reduce the entry of plastics into the environment. In addition to drinking water, plastic waste has the potential to

<sup>76</sup> OECD (2018). Improving Plastics Management: Trends, policy responses, and the role of international co-operation and trade. OECD Environment Policy Paper No.12.

<sup>77</sup> UNEP (2021). From Pollution to Solution: A global assessment of marine litter and plastic pollution.

<sup>78</sup> Groh et al. (2019). Overview of known plastic packaging-associated chemicals and their hazards. *Science of the Total Environment* 651: 3253-3268; Hermabessiere, Ludovic, et al. (2017). Occurrence and effects of plastic additives on marine environments and organisms: A review. *Chemosphere* 182: 781-793.

<sup>79</sup> <https://echa.europa.eu/plastic-additives-initiative>.

<sup>80</sup> Huang et al. (2016). Recent advances in antimicrobial polymers: a mini-review. *International journal of molecular sciences* 17.9: 1578.

<sup>81</sup> UNEP (2021). Drowning in Plastics – Marine Litter and Plastic Waste Vital Graphics.

<sup>82</sup> *Ibid.*

<sup>83</sup> UNEP/POPs/POPRC.17/13.

<sup>84</sup> GESAMP (2015). Sources, Fate and Effects of Microplastics in the Marine Environment: Part 2 of a Global Assessment. ISSN: 1020-4873.

<sup>85</sup> Draft Assessment on Sources, Pathways And Hazards Of Litter Including Plastic Litter And Microplastics Pollution.

affect a wide range of aquatic environments and varies in size, including nanoplastic, microplastic, and a range of larger items.

62. The GESAMP report found the additives and chemical contaminants that accumulate on plastics to result in a cocktail of hazardous chemicals associated with plastic debris, making it a potential source of exposure to chemical pollutants for the environment and wildlife. The report noted various potential ecotoxicological effects, while highlighting the need for further research. Studies have found evidence suggesting that marine species may be significantly exposed to hazardous chemicals in plastics.<sup>86</sup>

63. The Global Waste Management Outlook found that plastic waste is a significant source of greenhouse gas (GHG) emissions and plastic could consume 13% of the 1.5°C carbon budget by 2050. Through improved management of organic waste, recycling, and source reduction of plastic, waste management has the potential to achieve net negative emissions.<sup>87</sup>

64. According to information compiled by UNEP, today's cumulative annual economic losses as a result of damage to maritime industries, including the costs of clean-ups, are estimated to total some US\$ 6–19 billion. Since this estimate does not include the costs of degradation of ecosystem goods and services due to marine litter, it is likely to significantly underestimate the total economic losses. The combination of cheap fossil fuel feedstocks and poor waste management infrastructure and recycling has led to projections that by 2040 the expected mass of plastic leakage into the oceans could represent a US\$ 100 billion annual financial risk for businesses if governments require them to cover waste management costs.<sup>88</sup>

#### 4. Alternatives to plastics

65. As one approach to minimize the generation of plastic waste, scientists are exploring the development of alternatives to plastics. In 2017, bioplastics made up 2 million of the total 438 million tons of plastic production, although the global market for bioplastics has grown rapidly in the past decade.<sup>89</sup> A UNEP 2015 report<sup>90</sup> examined the degradation process of different plastics and the fate of biodegradable plastics in the marine environment. Among others, the report highlights various remaining challenges with regard to the more widespread adoption of biodegradable plastics. A UNEP 2018 report<sup>91</sup> summarized research and provides case studies of alternatives including natural polymers and materials (e.g., seaweed), biomass-based compostable bio-polymers, and reusable objects. It demonstrated that a number of alternative materials were either available commercially or in development, while also highlighting the need to take account of regional and local differences in the social, economic and environmental circumstances as well as the need to foresee and eliminate unintended consequences.

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<sup>86</sup> Gallo et al. (2018). Marine litter plastics and microplastics and their toxic chemicals components: the need for urgent preventive measures. *Environmental Sciences Europe*, 30, 13.

<https://enveurope.springeropen.com/articles/10.1186/s12302-018-0139-z>

<sup>87</sup> UNEP (2015). Global waste management outlook. <https://www.unep.org/resources/report/global-waste-management-outlook>.

<sup>88</sup> UNEP (2021). From Pollution to Solution: A global assessment of marine litter and plastic pollution.

<sup>89</sup> UNEP (2021). Drowning in Plastics – Marine Litter and Plastic Waste Vital Graphics.

<sup>90</sup> UNEP (2015). Biodegradable Plastics and Marine Litter. Misconceptions, concerns and impacts on marine environments. <https://www.unep.org/resources/report/biodegradable-plastics-and-marine-litter-misconceptions-concerns-and-impacts>.

<sup>91</sup> UNEP (2018). Exploring the potential for adopting alternative materials to reduce marine plastic litter. <https://www.unep.org/resources/report/exploring-potential-adopting-alternative-materials-reduce-marine-plastic-litter>.

66. Recent research examined, among others, the strength of biodegradable plastics,<sup>92</sup> the use of microbes that produce a plastic substitute as a by-product,<sup>93</sup> the potential risks of biodegradable plastic,<sup>94</sup> and the limits to biodegradation.<sup>95</sup>

67. The OECD published a framework for considering the sustainability of plastics from a chemical perspective.<sup>96</sup> It emphasises that even non-toxic plastics derived from non-toxic constituents are not sustainable plastics if they end up as litter and pollute land and oceans. It further highlights the need for a holistic and principle-based approach to material flows in moving towards sustainable plastics, including for example relying on a life-cycle perspective in the design and management of materials, products and processes and maximizing resource efficiency. Building on some of its recent reports that present environment-economy modelling to examine costs of inaction and benefits of policy action, the OECD published a Global Plastics Outlook.<sup>97</sup>

## **B. Activities related to plastic waste conducted under the Basel Convention**

68. At its fourteenth meeting, the Conference of the Parties adopted decision BC-14/12 by which it amended Annexes II, VIII and IX to the Convention in relation to plastic waste.

69. The Conference of the Parties also adopted decision BC-14/13 on further actions to address plastic waste under the Basel Convention. The decision includes a set of actions for preventing and minimizing the generation of plastic waste, improving its environmentally sound management and controlling its transboundary movement; reducing the risk from hazardous constituents in plastic waste; and public awareness, education and information exchange.

70. In the same decision, the Conference of the Parties requested the expert working group on the review of Annexes I, III and IV and related aspects of Annexes VIII and IX to consider, as part of its mandate, whether any additional constituents or characteristics in relation to plastic waste should be added to Annex I or III, respectively, to the Convention; decided to update the 2002 technical guidelines for the identification and environmentally sound management of plastic wastes and for their disposal; invited Parties and others to submit to the Secretariat, information on certain plastic wastes referred to in entry Y48 in Annex II and entry B3011 in Annex IX to the Convention. The Secretariat has compiled the information received from Parties and others for consideration by the Conference of the Parties at its fifteenth meeting.<sup>98</sup>

71. Other decisions adopted by the Conference of the Parties addressing plastic waste includes decisions BC-14/9 on cooperation with the World Customs Organization on the Harmonized Commodity Description and Coding System, BC-14/10 on national reporting, BC-14/18 on technical assistance, BC-14/19 on the Basel Convention Partnership Programme, BC-14/21 on international cooperation and coordination, and BC-14/23 on the clearing house mechanism for information exchange.

72. The Plastic Waste Partnership (PWP) was established by paragraph 24 of decision BC-14/13. The goal of the Partnership is to improve and promote the environmentally sound management of plastic waste at the global, regional and national levels and prevent and minimize their generation so as to, among other things, reduce significantly and in the long-term eliminate the discharge of plastic waste and microplastics into the environment, in particular the marine environment.

<sup>92</sup> Zhao et al. (2019). Synergistic Mechanisms Underlie the Peroxide and Coagent Improvement of Natural-Rubber-Toughened Poly (3-hydroxybutyrate-co-3-hydroxyvalerate) Mechanical Performance. *Polymers* 11.3: 565. (combining natural rubber with bioplastic).

<sup>93</sup> Perez et al. (2019). Funneling aromatic products of chemically depolymerized lignin into 2-pyrone-4-6-dicarboxylic acid with *Novosphingobium aromaticivorans*. *Green Chemistry* 21.6: 1340-1350.

<sup>94</sup> Sintim et al. (2019). Release of micro- and nanoparticles from biodegradable plastic during in situ composting. *Science of The Total Environment* 675: 686-693; Haider et al. (2019). Plastics of the future? The impact of biodegradable polymers on the environment and on society. *Angewandte Chemie International Edition* 58.1: 50-62; Markowicz, Florentyna, Grzegorz Król, and Agata Szymańska-Pulikowska. Biodegradable package—innovative purpose or source of the problem. *Journal of Ecological Engineering* 20.1: 228-237.

<sup>95</sup> Napper et al. (2019). Environmental deterioration of biodegradable, oxo-biodegradable, compostable, and conventional plastic carrier bags in the sea, soil, and open-air over a 3-year period. *Environmental science & technology*.

<sup>96</sup> OECD (2018). Considerations and criteria for sustainable plastics from a chemicals perspective – Background paper 1. Retrieved March 16 from <https://www.oecd.org/environment/waste/background-paper-sustainable-plastics-from-a-chemicals-perspective-considerations-and-criteria.pdf>.

<sup>97</sup> OECD (2022). Global Plastics Outlook. Economic Drivers, Environmental Impacts and Policy Options. [https://www.oecd-ilibrary.org/environment/global-plastics-outlook\\_de747aef-en](https://www.oecd-ilibrary.org/environment/global-plastics-outlook_de747aef-en).

<sup>98</sup> <http://www.basel.int/tabid/8350/Default.aspx>.



73. The terms of reference for the PWP are set out in annex I to document UNEP/CHW.14/INF/16/Rev.1 and they identify following overarching tasks:

- (a) Assess policy frameworks and strategies relevant to prevention, minimization, collection and environmentally sound management of plastic waste;
- (b) Identify the gaps and barriers, and identify best practices, for the prevention, minimization, and environmentally sound management of plastic waste;
- (c) Promote the development of policy, regulation and strategies on the prevention and minimization of plastic waste, in particular regarding single-use plastics, with a focus on the life-cycle of plastics, including design, innovation, and the avoidance of hazardous substances in plastics;
- (d) Advance the prevention, minimization, and environmentally sound management of plastic waste;
- (e) Undertake pilot projects;
- (f) Assess means of improving information on transboundary movements of plastic waste;
- (g) Facilitate knowledge sharing, capacity building, technical advice, and technology transfer;
- (h) Contribute to outreach, education and awareness raising activities;
- (i) Encourage and promote relevant innovation, research and development.

74. The workplan for the working group for the biennium 2020–2021 is set out in annex II to document UNEP/CHW.14/INF/16/Rev.1. At its first meeting in March 2020, the PWP working group established four project groups: plastic waste prevention and minimization; plastic waste collection, recycling, and other recovery including financing and related markets; transboundary movements of plastic waste; and outreach, education and awareness-raising.<sup>99</sup> The project groups developed workplans for each group.<sup>100</sup>

75. A report on the activities of the PWP is provided in UNEP/CHW.15/INF/36. Pilot projects are being prepared for implementation under the PWP. Under the first call for proposals, 23 pilot projects were selected for implementation. The second call for proposals was launched in January 2022. Various activities being or to be undertaken under the PWP (e.g., a compilation of information, best practices and lessons learned on measures taken by key stakeholders to prevent and reduce single use plastic waste and packaging waste; a compilation of information on the gaps and challenges in relation to collecting information/data on transboundary movement of plastic waste, etc.) may be relevant both for a possible future assessment of the effectiveness of the measures taken under the Basel Convention to address plastic waste and in considering possible further activities that could be conducted under the Basel Convention.

76. Various technical assistance projects are being implemented, including a series of pilot projects under the Small Grants Programme (SGP) on plastic waste. Funded by the Norwegian Agency for Development Cooperation and other donors and supported by the Basel and Stockholm conventions regional centres, these projects aim to improve the management of plastic waste in partner countries. To date, 16 national and regional projects in 36 countries are being implemented. Among others, national plastic waste inventories will be developed under a number of these projects, which could be relevant for a possible future assessment of the effectiveness of the measures taken under the Basel Convention to address plastic waste.

77. In 2016, the Basel and Stockholm conventions regional centres established a small topic group on marine litter, identifying possible future activities such as technical assistance and capacity-building to support Parties and others to implement waste management and efficient waste collection measures to promote innovation and technology transfer and to avoid non-biodegradable plastics and support sound chemical substitution of toxic components in plastic packaging and other plastics.<sup>101</sup>

### **C. Activities related to plastic waste conducted by other international entities**

78. This section provides a brief and non-exhaustive overview of activities conducted by other international entities. The UNEP, including under UNEA, and many other fora are addressing plastic waste and microplastics through various approaches involving different sectors and stakeholders.

<sup>99</sup> UNEP/CHW/OEWG.12/INF/31.

<sup>100</sup> <http://www.basel.int/tabid/8410/Default.aspx>.

<sup>101</sup> UNEP/CHW.13/INF/29/Rev.1.

79. As noted in paragraph 3 above, the second segment of the fifth session of the UNEA adopted a resolution to convene an intergovernmental negotiating committee to develop an international legally binding instrument on plastic pollution, including in the marine environment, commencing its work during the second half of 2022, with the ambition of completing its work by the end of 2024.<sup>102</sup> In the resolution, the Assembly reaffirmed the importance of cooperation, coordination and complementarity among relevant regional and international conventions and instruments, while respecting their respective mandates, to prevent plastic pollution and its related risks to human health and adverse effects on human well-being and the environment, including, among others, the Basel, Rotterdam and Stockholm Conventions. The resolution specified, among others, the provisions to be covered in the instrument and a list of items for consideration in the deliberations on the instrument, including the possibility of a mechanism to provide policy relevant scientific and socio-economic information and assessment related to plastic pollution. Furthermore, the Assembly adopted a resolution on a Science-Policy Panel to contribute further to the sound management of chemicals and waste and to prevent pollution, by which it decided that a science-policy panel should be established to contribute further to the sound management of chemicals and waste and to prevent pollution. Further information on the outcomes of the fifth session of UNEA can be found in document UNEP/CHW/OEWG.12/INF/21/Rev.2.

80. In leading up to the fifth session of the UNEA, the Nordic Council of Ministers has recommended a global scientific mechanism to support the international regulation of plastic pollution.<sup>103</sup> It has also recommended elements for a global agreement, including a holistic system for measuring progress.<sup>104</sup>

81. The UN Environmental Management Group published an overview of UN Activities and Initiatives related to Marine Litter and Microplastics, which includes a discussion of UN agreements, programs, and agencies working on or with mandates relevant to plastic. The report emphasized the importance of a life-cycle approach and of prevention through a focus on sustainable production and consumption as opposed to waste management, and it identified opportunities for collaboration among UN entities.<sup>105</sup>

82. UNEP has published a report 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.<sup>106</sup> Another recent UNEP report examined the magnitude and severity of marine litter and plastic pollution in the environment and their effects on the health of ecosystems, wildlife and humans.<sup>107</sup>

83. The Global Partnership on Marine Litter (GPML) is a multi-stakeholder partnership under UNEP, which includes projects involving scientific and environmental research related to plastic waste.<sup>108</sup> Its report on marine plastic debris and microplastics provides scientific and environmental information,<sup>109</sup> and is aimed at supporting objectives in the Honolulu Strategy, including “reduced amount and impact of land-based sources of marine debris introduced into the sea” through “legislation and policies to support solid waste prevention, minimization and management.” In cooperation with the UNEP Finance Initiative, the GPML developed the first global study of the insurance industry on risks associated with plastic pollution and marine litter, including physical, transition, liability and reputational risks.<sup>110</sup>

<sup>102</sup> UNEP/EA.5/L.23/Rev.1.

<sup>103</sup> Nordic Council of Ministers (2021). Strengthen the Global Science and knowledge Base to Plastic Pollution.

<sup>104</sup> Nordic Council of Ministers (2021). Possible elements of a new global agreement to prevent plastic pollution.

<sup>105</sup> UN Environmental Management Group (2021). An overview of UN Activities and Initiatives related to Marine Litter and Microplastics. [https://unemg.org/wp-content/uploads/2021/09/EMGSOM.27\\_INF\\_2\\_FINAL\\_Draft\\_Marine-Litter-Report.pdf](https://unemg.org/wp-content/uploads/2021/09/EMGSOM.27_INF_2_FINAL_Draft_Marine-Litter-Report.pdf).

<sup>106</sup> UNEP (2021). Drowning in Plastics – Marine Litter and Plastic Waste Vital Graphics.

<sup>107</sup> UNEP (2021). From Pollution to Solution: A global assessment of marine litter and plastic pollution.

<sup>108</sup> <http://marinelitternetwork.com/all-projects/>.

<sup>109</sup> UNEP (2016). Marine plastic debris and microplastics – Global lessons and research to inspire action and guide policy change.

<sup>110</sup> UNEPFI (2019). Unwrapping the risks of plastic pollution to the insurance industry.

<https://www.unepfi.org/psi/wp-content/uploads/2019/11/PSI-unwrapping-the-risks-of-plastic-pollution-to-the-insurance-industry.pdf>.

84. The Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities is an intergovernmental mechanism for addressing marine pollution.<sup>111</sup> The GPA holds an intergovernmental review meeting every five years to review the status of the implementation of the GPA and to decide on the action to be taken to strengthen its implementation.
85. Thirteen Regional Seas Programmes<sup>112</sup> have regional action plans on marine litter, three others are under development or review, and one is binding. The AHEG assessed the effectiveness of these plans and found that they have a high maturity, feasibility, and impact.<sup>113</sup>
86. SAICM is a voluntary global policy multi-stakeholder instrument, where discussions are continuing to take place to address chemicals and wastes beyond the instrument's current mandate which ended in 2020. Recommendations for the post-2020 framework include possible work on plastics.<sup>114</sup> An assessment report on issues of concern identifies microplastics as one of 11 chemicals or groups of chemicals where emerging evidence indicates a risk, as described by the Global Chemical Outlook II, and provides a detailed assessment of the risks of internationally added microplastics in products.<sup>115</sup>
87. The GESAMP prepared two scientific reports summarizing the current information about the sources of marine plastic litter and microplastics, the ways they enter the sea and the impact on the marine environment.<sup>116</sup> A workshop in May 2019 provided an overview of risks and exposure pathways of plastic and microplastic, existing or planned international or other initiatives, current methods of risk assessment, and guidance to the GESAMP on its future work programme.<sup>117</sup>
88. The Food and Agriculture Organization of the United Nations (FAO) focuses on marine plastic litter originating from the fishing industry and on the impact of microplastics on fisheries, aquaculture resources, and human health through fish consumption. The Fisheries Committee developed voluntary guidelines on the marking of fishing gear in February 2018. Regional Fisheries Bodies provide a mechanism for states to address abandoned, lost or otherwise discarded fishing gear.<sup>118</sup>
89. The OECD countries met between July 2019 and July 2020 to discuss how and whether to update rules on plastic waste in light of the Basel Convention plastic waste amendments. The OECD countries agreed to update rules on the export of hazardous plastic waste for recycling to require prior informed consent. The countries did not reach consensus on updating rules regarding the export of non-hazardous plastic waste, and will review the situation in 2024. In 2021, the OECD published a report providing recommendations to make circular economy and trade policies mutually supportive.<sup>119</sup>
90. The OECD has published a Global Plastics Outlook to provide insights into the demand for plastic materials, waste generation and recycling; and project economic drivers of plastic use, production, disposal and pollution.<sup>120</sup>
91. In 2019, at the ASEAN Ministerial Meeting on Marine Debris, the ASEAN countries adopted the Bangkok Declaration on Combating Marine Debris in the ASEAN Region and the ASEAN Framework of Action on Marine Debris.<sup>121</sup>

<sup>111</sup> <https://www.unep.org/resources/toolkits-manuals-and-guides/global-programme-action-protection-marine-environment-land>.

<sup>112</sup> <https://www.unep.org/explore-topics/oceans-seas/what-we-do/regional-seas-programme>.

<sup>113</sup> UNEP/AHEG/4/4.

<sup>114</sup> SAICM/IP.4/2.

<sup>115</sup> UNEP (2020). An Assessment Report on Issues of Concern: Chemicals and Waste Issues Posing Risks to Human Health and the Environment.

<https://wedocs.unep.org/bitstream/handle/20.500.11822/33807/ARIC.pdf?sequence=1&isAllowed=y>

<sup>116</sup> <http://www.gesamp.org/publications>.

<sup>117</sup> GESAMP (2020). Proceedings of the GESAMP International Workshop on Assessing the Risks associated with Plastics and Microplastics in the Marine Environment. <http://www.gesamp.org/publications/gesamp-international-workshop-on-assessing-the-risks-associated-with-plastics-and-microplastics-in-the-marine-environment>.

<sup>118</sup> FAO. (2016). Abandoned, lost or otherwise discarded fishing gear: methods to estimate ghost fishing mortality, and the status of regional monitoring and management. <https://agris.fao.org/agris-search/search.do?recordID=XF2017001196>

<sup>119</sup> Yamaguchi (2021). International trade and circular economy-Policy alignment.

<sup>120</sup> OECD (2022). Global Plastics Outlook. Economic Drivers, Environmental Impacts and Policy Options. [https://www.oecd-ilibrary.org/environment/global-plastics-outlook\\_de747aef-en](https://www.oecd-ilibrary.org/environment/global-plastics-outlook_de747aef-en).

<sup>121</sup> <https://asean.org/bangkok-declaration-on-combating-marine-debris-in-asean-region/>.

92. In 2020, the Economic and Social Commission for Asia and the Pacific launched the pilot project “Closing the Loop” in four ASEAN cities, which uses technologies such as remote sensing, satellite and crowdsourced data applications in to identify, monitor and assess the sources and pathways of plastic litter.<sup>122</sup>
93. Under MARPOL Annex V, the disposal of plastic into the sea is prohibited and vessels above 400 GT need to draft a garbage management plan and keep a garbage record book. The adoption in 2018 of the IMO Action Plan to Address Marine Plastic Litter from Ships is aimed at strengthening the implementation of Annex V.<sup>123</sup> The action plan promotes the reporting of lost fishing gear and the delivery of recovered fishing gear to land-based facilities.
94. The London Convention includes a list of wastes prohibited to dump at sea, which includes plastics, and the Convention was strengthened by the Protocol signed in 1996 which prohibited dumping of all wastes unless listed in Annex I (e.g. dredged material, sewage sludge, fish waste, among others).
95. The G20 agreed to an Action Plan on Marine Litter at the G20 Hamburg summit in July 2017 and established the “G20 Implementation Framework for Actions on Marine Plastic Litter” at the G20 Ministerial Meeting in June 2019 in Karuizawa. The G20 published a report on actions against marine plastic litter in 2021, which surveys and measures the achievements of the plastic pollution policies and laws of G20 countries as well as the policies of some international organizations and NGOs.<sup>124</sup>
96. The Conference of the Parties to the Convention on Biological Diversity, in 2016, adopted a decision on addressing impacts of marine debris and anthropogenic underwater noise on marine and coastal biodiversity.<sup>125</sup>
97. In 2019, the Antarctic Treaty issued a resolution on reducing plastic pollution in Antarctica and the Southern Ocean.<sup>126</sup>
98. The UNECE is exploring the relationship between sustainable forestry and the circular economy, including the role of forest products in substituting for plastic, such as in packaging.<sup>127</sup>
99. The UNFCCC held COP25 in Glasgow in November 2021. Many aspects of these negotiations are relevant to plastic waste, as every stage in the lifecycle of plastics generates significant emissions of greenhouse gases addressed by the Convention. At COP26, Parties recognized the role of fossil fuel supply in the reduction of global greenhouse gas emissions, to limit global warming to 1.5 °C.<sup>128</sup> However, many countries have not set emissions targets for their waste sector and only one country has recognized the relationship between plastic production and fossil fuel dependence in its 2015 Nationally Determined contribution (NDC). Yet in their 2015 NDCs, 11 countries addressed plastic waste through existing or proposed bans or phaseouts on single use plastic.<sup>129</sup>
100. A large group of members of the WTO issued a ministerial statement on trade and sustainability on 15 December 2021 which explicitly recognized the problem of plastic pollution.<sup>130</sup> Another ministerial statement issued at the same time explicitly addresses plastic pollution and trade, recognizes “the need for further commitment and actions across the life cycle of plastics to address marine litter and microplastics, including through a circular economy approach,” and emphasizes “opportunities for enhanced cooperation” among different processes on the issue, including those under the Basel Convention.<sup>131</sup> WTO members launched the Informal Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade (IDP) to promote sustainable plastics economy.

<sup>122</sup> <https://www.unescap.org/resources/closing-loop-plastic-waste-southeast-asia-urban-case-studies>.

<sup>123</sup> Resolution MEPC.201(62) Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973.

<sup>124</sup> Kato et al. (2021). G20 Report on Actions against Marine Plastic Litter: Third Information Sharing based on the G20 Implementation Framework.

<sup>125</sup> CBD/COP/DEC/XIII/10.

<sup>126</sup> Secretariat of the Antarctic Treaty, Resolution 5 (2019) - ATCM XLII - CEP XXII, Prague.

<sup>127</sup> ECE/TIM/2019/3.

<sup>128</sup> Glasgow Climate Pact.

<sup>129</sup> Wasted Opportunities: A review of international commitments for reducing plastic- and waste-sector GHG emissions GAIA 2021.

<sup>130</sup> WT/MIN(21)/6.

<sup>131</sup> WT/MIN(21)/8/Rev.2.

101. In 2021, the United Nations Commission on Trade and Development (UNCTAD) issued a paper on the global trade in plastics, which quantifies and maps global trade flows across the entire life cycle of plastics - from raw inputs to final plastic products as well as waste.<sup>132</sup>

#### **D. Consideration of possible further activities that could be conducted under the Basel Convention**

102. Recent developments in scientific knowledge and environmental information underscore that the high and rapidly increasing levels of plastic and microplastics pollution represent a serious environmental problem on a global scale.

103. In considering possible further activities that could be conducted under the Basel Convention, it is worth acknowledging that while a wide range of activities and initiatives addressing plastic waste are being undertaken by numerous stakeholders at all levels, those under the Basel Convention may have a differentiated status as emerging from the implementation of a legally binding treaty such as the Basel Convention. It is also important to consider that the mandate given by the fifth session of UNEA to the intergovernmental negotiating committee towards the development of an international legally binding instrument on plastics pollution provides that the instrument should include provisions to promote cooperation and coordination with relevant regional and international conventions, such as the Basel, Rotterdam and Stockholm conventions, while recognizing their respective mandates, avoiding duplication, and promoting complementarity of action.

104. The mandate of the PWP covers a broad range of activities.<sup>133</sup> A wide spectrum of activities could be conducted within the framework of the Partnership, should this be decided by the Conference of the Parties. In particular, the Partnership provides an avenue for multistakeholder action for knowledge sharing, exchange of best practices, capacity building and technology transfer related to the prevention, minimisation and environmentally sound management of plastic waste. It may also serve to improve information exchange related to transboundary movements of plastic waste. The Partnership's broad mandate also highlights the need for coordinate and collaborate, as appropriate, on activities with other organizations and initiatives to establish synergies and prevent duplication.

105. Reflecting on recent developments in scientific knowledge and environmental information as well as the resolution on plastic pollution adopted by the UNEA and taking into account the activities conducted by the Basel Convention, including the PWP and by other international and regional entities, further activities could be considered under the Basel Convention, as listed in paragraph 2 of annex II to the present note.

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<sup>132</sup> UNCTAD (2021). Global trade in plastics: insights from the first life-cycle trade database. UNCTAD Research Paper No. 53. <https://unctad.org/webflyer/global-trade-plastics-insights-first-life-cycle-trade-database>.

<sup>133</sup> UNEP/CHW.14/INF/16/Rev.1.

## Annex II

### **Draft recommendations on a possible future assessment of the effectiveness of the measures taken under the Basel Convention to address plastic waste and possible further activities that could be conducted under the Basel Convention for consideration by the Conference of the Parties at its fifteenth meeting**

#### **1. Possible future assessment of the effectiveness of the measures taken under the Basel Convention to address plastic waste:**

1. Having considered whether, how and when the Conference of the Parties should assess the effectiveness of the measures taken under the Convention to address the plastic waste and microplastics, the Open-ended Working Group recommends that the Conference of the Parties:

(a) Note that it is premature to begin an effectiveness evaluation of the measures taken under the Basel Convention to address plastic waste as it is essential that an appropriate period of time has passed to allow the measures to be implemented and generate results;

(b) Consider establishing an expert group, subject to the availability of resources, to further develop recommendations, for consideration by Conference of the Parties at its sixteenth meeting, on how and when the Conference of the Parties should assess the effectiveness of the measures taken under the Convention, including modalities, scope, objectives, indicators, availability and limitation of data, periodicity and timelines, and coordination with other relevant review processes under the Convention.

#### **2. Possible further activities that could be conducted under the Basel Convention:**

2. Having considered which further activities could be conducted under the Convention related to plastic waste as a source of land pollution, marine plastic litter and microplastics, the Open-ended Working Group recommends that the Conference of the Parties:

(a) Note that the recent developments in scientific knowledge and environmental information underscore that plastic pollution is a serious environmental problem on a global scale and acknowledge that a wide range of activities and initiatives addressing plastic pollution are being undertaken by numerous stakeholders at all levels;

(b) Emphasize that further activities under the Basel Convention should promote cooperation and coordination with the work of other initiatives, including those decided by the United Nations Environment Assembly;<sup>134</sup>

(c) Note that decisions taken at the twelfth meeting of the Open-ended Working Group<sup>135</sup> as well as the draft decisions on a number of agenda items to be considered by the Conference of the Parties to the Basel Convention at its fifteenth meeting include further actions relevant to plastic waste<sup>136</sup> and that relevant activities could be conducted within the existing framework of the Convention, including the Plastic Waste Partnership;

<sup>134</sup> UNEP/EA.5/L.23/Rev.1.

<sup>135</sup> The draft decisions to be considered by the Open-ended Working Group at its twelfth meeting with proposed action relevant to plastic waste are set out in documents UNEP/CHW/OEWG.12/4 on technical guidelines; UNEP/CHW/OEWG.12/5 on draft practical guidance for the development of inventories of priority waste streams; UNEP/CHW/OEWG.12/10 on providing further legal clarity; UNEP/CHW/OEWG.12/12 on the Basel Convention Partnership Programme; UNEP/CHW/OEWG.12/13 on cooperation with the World Customs Organization on the Harmonized Commodity Description and Coding System.

<sup>136</sup> The draft decisions to be considered by the Conference of the Parties at its fifteenth meeting are set out in documents UNEP/CHW.15/6 on technical guidelines; UNEP/CHW.15/8 on national reporting; UNEP/CHW.15/12/Rev.1 on the Committee Administering the Mechanism for Promoting Implementation and Compliance; UNEP/CHW.15/13 on providing legal clarity; UNEP/CHW.15/14 on national legislation, notifications, enforcement of the Convention and efforts to combat illegal traffic; UNEP/CHW.15/17 on Basel Convention regional and coordinating centres; UNEP/CHW.15/18/Rev.1 on the Basel Convention Partnership Programme; UNEP/CHW.15/21 on international cooperation and coordination with other organizations; UNEP/CHW.15/23 on mainstreaming gender.

(d) Consider the following further activities that could be conducted under the Basel Convention, in addition to the actions proposed under other agenda items referred to in paragraph 2 (c) above:

- (i) Information collection, monitoring and reporting;
  - a. Invite Parties, on a voluntary basis, to transmit the following information:
    - i. Generation and management of plastic waste and the transboundary movement of plastic waste not subject to the prior informed consent procedure, including statistical information thereof collected through national plastic waste inventory;
    - ii. Status of implementation of the plastic waste amendments including through national legislation, action plans and other measures;<sup>137</sup>
  - b. Request the Secretariat, subject to the availability of resources, to develop a database for sharing the information relating to plastic waste provided by Parties and observers, including the information transmitted in accordance with the preceding paragraph, so as to create a harmonized central repository for such information;
  - c. Request the Secretariat, subject to the availability of resources, to support Parties:
    - i. To quantify or estimate the quantities of plastic waste generated, managed, exported and imported, recycled and finally disposed of, including through the development of plastic waste inventories and national action plans addressing minimization, environmentally sound management and control of transboundary movements of plastic waste;
    - ii. To quantify or estimate the quantities of plastic waste leaked into the environment and to identify priority areas for reducing such leakage;
  - d. Request the Secretariat, subject to the availability of resources, to propose options towards the establishment of a global monitoring programme, taking into account the experiences gained through the global monitoring plan for persistent organic pollutants under the Stockholm Convention, for consideration by the Conference of the Parties at its next meeting;
  - e. Request the Secretariat, subject to the availability of resources, to undertake activities to establish links for data available as referred to in (1) and (3) in the monitoring framework for the SDGs, in particular goal 14 on oceans, seas and marine resources for sustainable development on and goal 12 on sustainable consumption and production;
- (ii) Support for the implementation of the Basel Convention provisions relevant to plastics:
  - a. Establish an expert group to develop, subject to the availability of resources and taking into account the practical manuals and guidance in the ESM Toolkit,<sup>138</sup> practical guidance for the implementation of the Basel Convention provisions relevant to plastics and microplastics, for example: on waste prevention and minimization; on the environmentally sound management of specific waste streams where plastic is relevant (i.e. bulk quantities, hazardous versus non-hazardous); on the various types of recycling technologies; on measures on health and safety; on the development of suitable policy instruments and actions at the national level to address plastic pollution; on targets, indicators, monitoring and assessment on plastics waste and on microplastics on land and in the marine environment; on environment and trade in plastics, including

<sup>137</sup> Decision BC-14/12.

<sup>138</sup> <http://www.basel.int/tabid/5839/Default.aspx>.

information on legal and illegal trade; on prevention and minimization of hazardous constituents of plastic waste, including plastic additives;

- b. Request the Secretariat, subject to the availability of resources, to support Parties that are developing countries and countries with economies in transition to address plastic pollution, including by promoting the use of the above-mentioned practical guidance;
- c. Invite Parties and observers in a position to do so to conduct activities to address waste containing microplastics and nanomaterials and share the information on such activities with other Parties and observers through the Secretariat;
- d. Invite the Basel Convention regional and coordinating centres and the Stockholm Convention regional and subregional centres for capacity-building and the transfer of technology to continue their activities relevant to addressing plastic pollution.

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