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A NEW TREATY ON PLASTIC POLLUTION PERSPECTIVES FROM ASIA

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ABBREVIATIONS

AHEG	Ad hoc open-ended expert group on marine litter and microplastics
AOSIS	Alliance of Small Island States
ASEAN	Association of Southeast Asian Nations
CBD	Convention on Biological Diversity
CIEL	Center for International Environmental Law
COBSEA	Coordinating Body on the Seas of East Asia
COP	Conference of the Parties
EIA	Environmental Investigation Agency
EPR	Extended producer responsibility
ERIA	Economic Research Institute for ASEAN and East Asia
GAIA	Global Alliance for Incinerators Alternatives
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IUCN	International Union for Conservation of Nature
MARPOL	International Convention for Prevention of Pollution from Ships
NUS	National University of Singapore
PET	Polyethylene terephthalate
RKC-MPD	Regional Knowledge Centre for Marine Plastic Debris
SME	Small and medium-sized enterprises
SSWA	Subregional Office for South and South-West Asia
TBT	Technical Barriers to Trade Agreement
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
USAID	United States Agency for International Development
WWF	World Wide Fund for Nature



EXECUTIVE SUMMARY

Marine plastic pollution is a global challenge that needs a coordinated response at international level. The topic has been on the agenda of the UN Environment Assembly (UNEA) since its first session in 2014. Over the last years, in-depth discussions have been facilitated via the ad hoc open-ended expert working group on marine litter and microplastics (AHEG), which was established in 2017 and concluded its work in 2020. The Chair's summary, in line with the increasing calls for a global plastic pollution treaty, listed a new global instrument as one possible option for continued work for consideration at UNEA 5.2 in February 2022. **By the end of September 2021, 80 countries around the world have joined the call for a new legally binding global agreement on plastic pollution by endorsing the 'Ocean Day Plastic Pollution Declaration'.** According to a count by WWF, more than two thirds of the UN member states have by now expressed their support for a new global agreement via different fora. In September 2021, a ministerial conference dedicated to marine litter and plastic pollution was held, hosted by Ecuador, Germany, Ghana and Viet Nam, and supported by UNEP. During the meeting, delegates discussed a ministerial statement recommending to start the negotiation of a new global agreement.

The Asian region has an important role in the global plastic pollution crisis. Different studies indicate that Asian countries are contributing considerably to marine plastic pollution. The causes are high plastic production, rapid economic development, lack of sufficient waste management infrastructure and plastic waste trade. Marine plastic pollution

has impacts on the environment in the region, and economic as well as social costs. The life-time costs of plastic products are not yet fully understood and are not reflected in the price. As Asian countries are quite diverse regarding geography, level of development and integration into the global market, their roles in the global plastics crisis vary.

To study Asian perspectives on a global plastic pollution treaty, information was gathered from 16 countries, i.e. Bhutan, Brunei, China, India, Indonesia, Japan, the Republic of Korea, Laos, Malaysia, Maldives, the Philippines, Singapore, Sri Lanka, Thailand, Timor Leste and Viet Nam. Based on oral and written responses to the questionnaire by representatives from ten countries, i.e. Bhutan, Indonesia, Laos, Malaysia, Maldives, Philippines, Singapore, Sri Lanka, Thailand and Viet Nam, challenges experienced were identified – as well as measures already taken, the possible added value of a new global treaty, and positions about its content. This information has been supported and supplemented via desk-based research, including for countries which did not respond to the questionnaire. In their responses to the questionnaire, government representatives focused on different topics and were cautious to share their countries' positions on possible treaty elements. Therefore, the report reflects the common themes identified and highlights selected government responses.

Across Asia, countries experience marine plastic pollution as a challenge. Based on the input received from government officials across the region and through desk-based research, the following challenges are predominant: a lack of data along the life-cycle of plastics, insufficient monitoring and gaps in knowledge on marine plastic pollution, access to financial resources and technology, limited response options for coastal plastic pollution, ineffective plastic waste management, and engagement of the plastic industry. The challenges differ between the countries: While all countries struggle with information gaps, waste management problems were of particular concern in developing countries. Despite national and regional efforts to address the challenges, leakage of plastic waste into the ocean remains high.

Some of the measures taken in Asian countries are relevant for the international debate. Integrating them into a global treaty could establish a level playing field, avoid trade barriers, embed national action into a comprehensive international framework, and increase the effectiveness of the measures. For example, various Asian countries are in the process of discussing, preparing, adopting or even implementing national action plans, either dedicated to marine plastic pollution or addressing marine plastic pollution within the broader context of plastic pollution or marine environment protection. Also, most countries in Asia have started to introduce plans or legislation to phase out certain single-use plastic products. Finally, various Asian countries are introducing innovative approaches to engage the industry sector, especially via extended producer responsibility (EPR) schemes.

In the Asian region, support for a global plastic pollution treaty has been growing throughout 2021. By the end of September, six of the Asian countries covered in this report, i.e. Maldives, Philippines, Singapore, the Republic of Korea, Timor-Leste and Viet Nam, had endorsed the 'Ocean Day Plastic Pollution Declaration' which publicly calls for a new legally binding global agreement on plastic pollution. The endorsers commit to work for the establishment of an intergovernmental negotiation committee at UNEA 5.2 in February 2022. In July, Japan officially communicated its support for establishment of an intergovernmental negotiating committee. However, some countries remain cautious and want to conduct more research first, prefer to further explore all possible options, or suggest

strengthening existing mechanisms or treaties as the priority action.

In their response to the questionnaire, some government representatives shared their thoughts about the added value of a global plastic pollution treaty. These revolved around the regulation of plastic products, improvement of waste management and means of implementation. Of particular interest, especially for government representatives from developing countries, were the import of plastic products and plastic waste in light of limited capacities to regulate such imports and to properly manage plastic waste. Expectations of a global plastic pollution treaty included that it should be guided by the precautionary principle, the principle of common but differentiated responsibilities and the polluter pays principle. Also, it should facilitate a life-cycle approach and enable the shift to a circular economy.

Global and national reduction targets, national and regional action plans, requirements to phase out single-use plastics, extended producer responsibility schemes, provisions to research and reduce the impacts of microplastics, the setup of a science-policy interface, support mechanisms, and a framework for monitoring and reporting are among the possible treaty elements discussed. Government representatives were cautious to share their positions on possible elements of a global plastic pollution treaty. A comparison of the elements discussed in various fora over the past years with the information gathered on national and regional efforts indicates that a new global plastic pollution treaty could respond to the challenges experienced and provide guidance for national and regional action.

However, whether a global plastic pollution treaty would have added value, will depend on the design of the elements and whether it takes into account the following guidelines: First, a new treaty would need to facilitate national action and support countries in their ongoing efforts to find suitable solutions. Second, it would need to allow for flexibility, respecting national circumstances and capacities especially of developing countries. Third, it would need to ensure responsibility of exporting countries and the industry sector for the development of sustainable alternatives and environment-friendly waste management. And fourth, a new treaty would need to facilitate knowledge generation and sharing, as well as access to support for implementation.

To contribute to the debate about a global plastic pollution treaty and to ensure national interests are represented, Asian countries could take the following actions: Where this has not been done, countries could begin by identifying the challenges and needs that are relevant for the international debate. In parallel, they could identify best practice examples and lessons learnt, e.g. in regard to national action plans. Based on this information, countries could formulate their expectations and prioritise them in light of the most urgent challenges. Already ahead of the possible treaty negotiations, countries could build alliances within the Asian region and beyond. Finally, it will be important to actively engage in the international debate, first to ensure the adoption of a robust negotiation mandate by UNEA 5.2 and then to influence subsequent formal negotiations of the new treaty.

A close-up underwater photograph of a sea turtle swimming towards the right. The turtle's head and front flipper are visible. A clear plastic bag is caught in its mouth, partially covering its eye. The background is a deep blue ocean with a coral reef visible at the bottom.

1

INTRODUCTION

1.1 OBJECTIVE OF THE REPORT

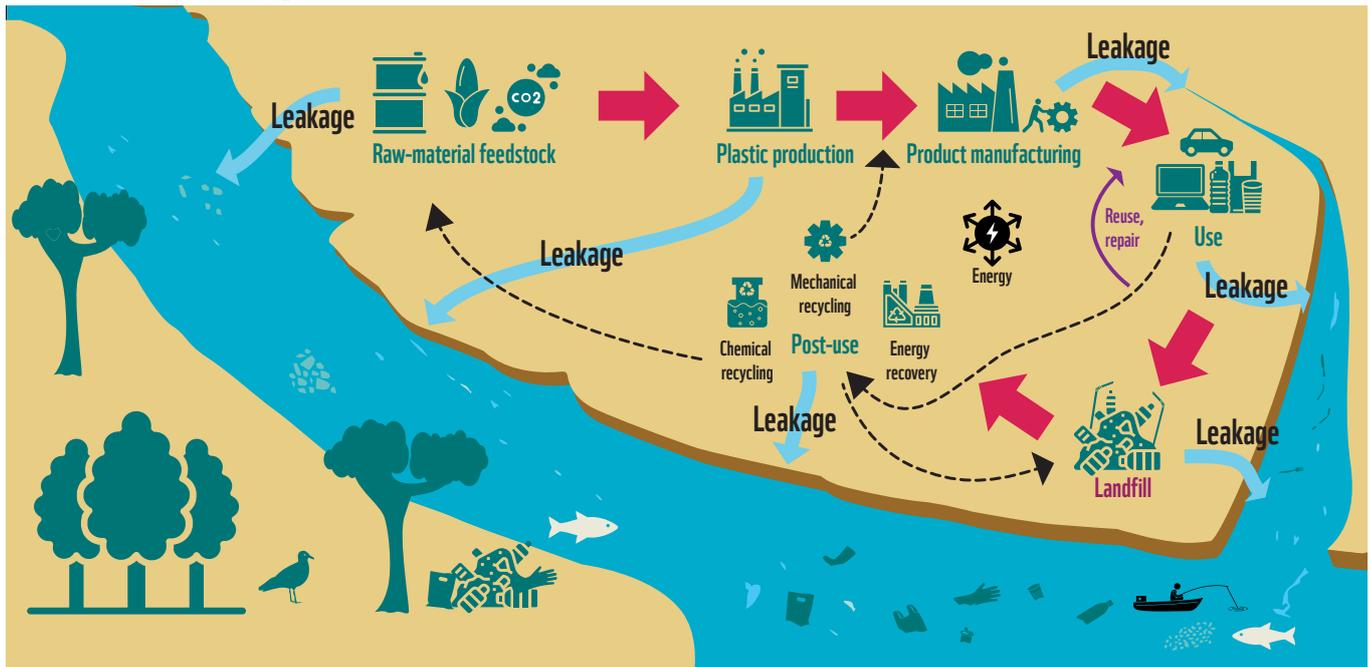
Marine plastic pollution is a global challenge. The amount of plastic waste entering the oceans every year has increased considerably over the past decades. Once caught up in ocean currents, plastic waste is transported around the world and can have adverse impacts on marine ecosystems. In a globalised world with international trade of plastic products and plastic waste on the one hand and considerable differences in – among others – recycling and waste management capacities between countries on the other hand, national efforts to tackle the challenge are not sufficient.

Marine plastic pollution needs a coordinated global response that facilitates national and regional action. Over the past years, the number of countries calling for a legally binding global plastic pollution treaty has increased. Also, several businesses have joined this call and have signed a manifesto that emphasises the importance of a coordinated international response to stop plastic pollution. There is now a growing momentum for the establishment of a negotiation process during the second part of the fifth session of the UN Environment Assembly (UNEA-5.2) in February 2022. Preparations for and discussions about such a negotiation mandate are ongoing on various levels and between different countries.

This report focuses on the Asian perspectives – a diverse region struggling with various challenges caused by plastic throughout its entire life cycle. Different studies indicate that several Asian countries are among the top polluting countries due to plastic waste mismanagement; the continued leakage of plastic waste into the ocean has significant impact on the marine environment in the region, livelihoods and public health. As a consequence, governments in Asia are increasingly taking action to stop the plastic pollution crisis – nationally and also regionally.

The report explores challenges and needs experienced by countries in Asia and showcases existing solutions. It identifies common themes and outlines differing views to inform the international debate and to ensure perspectives and concerns of Asian countries are reflected in the elements of a new global plastic pollution treaty. It also aims to raise awareness of national governments in the region and to trigger discussions between them on the way forward and possible negotiation positions. To this end, the report has been prepared in a participatory process with engagement of national governments via the questionnaire and a workshop.

Figure 1: *The lifecycle of plastic*



1.2 PROCESS AND ENGAGEMENT

The report is based on information gathered from Bhutan, Brunei, China, India, Indonesia, Japan, the Republic of Korea, Laos, Malaysia, the Maldives, the Philippines, Singapore, Sri Lanka, Thailand, Timor Leste and Viet Nam. The countries were selected based on geography, seeking representation from developed and developing countries. Countries supporting a global plastic pollution treaty and countries voicing concerns were included. Information was gathered via desk-based research as well as oral or written feedback to a questionnaire shared with government officials from the region. Government officials from some of the countries selected did choose not to respond to the questionnaire, including due to challenges in handling the COVID-19 pandemic. Out of the 16 countries covered in the report, Bhutan, Indonesia, Laos, Malaysia, Maldives, Philippines, Singapore, Sri Lanka, Thailand and Viet Nam have provided official feedback to the questionnaire ([see section 8.4](#)).

To gain insights and receive information first-hand, the authors have contacted national governments in the region with a questionnaire designed to examine challenges related to marine plastic pollution as well as the countries' position on a possible global plastic pollution treaty. While some government officials have shared official positions that are reflected in the report, others have provided unofficial background information that has been taken into consideration during the drafting process, but could not be directly incorporated into the report. All government officials who responded to the questionnaire have been given the choice to withdraw from the process or to remain anonymous after they have seen the summary of their response – they have also been provided with the opportunity to review and verify their responses.

The findings from the desk-based research and the questionnaire have been discussed with government officials during a workshop in July 2021. Invitations were shared with government officials in all countries covered in the report, participants included government officials from Laos, Malaysia, Maldives, Philippines, Singapore, Sri Lanka and Viet Nam. They were given the opportunity to share information about national measures taken to tackle marine plastic pollution, challenges experienced nationally and regionally, expectations from a new global plastic pollution treaty as well as their next steps. During the workshop, the Chatham house rules were applied. Therefore, the information could only be used to inform the drafting process, but is not directly incorporated into the report.

2

TACKLING PLASTIC POLLUTION



2.1 THE PLASTIC POLLUTION CRISIS

After Carpenter and Smith reported the presence of plastic pellets and fragments in the western Sargasso Sea in a Science article in 1972, it took about a decade before research intensified – driven by a growing concern about the potential environmental and health impacts.¹ The topic entered the public debate when the North Pacific ‘garbage patch’ was discovered and described by Moore in 1997.² Despite the awareness and knowledge we have today, the **world’s oceans are continuously filling up with plastic**. It is estimated that 6,300 million metric tonnes of plastic waste have been generated to date, out of which 79% have been accumulated in landfills or the natural environment.³ This plastic waste is supplemented every year with an additional 343 million tonnes of plastic waste.⁴

Various factors have contributed to the ongoing plastic pollution crises. **Plastic production and consumption has seen a manifold increase** and is expected to increase even further with the growth of economies and rise in income levels. As economies move from low income to high income, the share of plastics in the municipal waste stream also increases.⁵ The demand for plastics has been met by a significant increases in plastic production which is expected to double from 311 million tonnes in 2014 over the next 20 years.⁶ Due to the **current linear economy** the increasing amounts of plastics put on the market largely turn into mismanaged waste at the end of their use. The **current plastic waste management infrastructure** available for recycling is only able to recycle 15%⁷ of the global plastic waste and releases an estimated 8 million metric tonnes of plastic in our oceans every year. If the current production rates and mismanagement of plastic waste continue, the **annual flow of plastic into the ocean** is expected to nearly triple by 2040.⁸

The plastic waste management infrastructure is also unequally distributed across the world. While high-income countries have well developed waste collection systems, low income countries report low collection rates.⁹ However, due to a lack of sufficient **national recycling capacities** and the low cost of exporting plastic waste to other countries, the developed economies export large amounts of plastic waste to developing countries. Some countries also incinerate plastic waste instead of recycling it, including Japan.¹⁰ At the receiving end of the plastic waste trade, the developing economies with **weak waste management infrastructure**, are overwhelmed with increasing amounts of mismanaged plastic waste. This mismanaged plastic waste is either burnt in the open or ends up in the oceans.¹¹ However, the situation is rapidly changing with plastic waste importing countries increasingly issuing bans on the import of plastic waste.

The growing amount of plastic waste in the open environment and oceans has direct consequences for the human health, the marine ecosystem and the economy. The plastic that flows into the oceans make up to 80% of all marine debris and constitutes 90-95% of the total marine litter.¹² This **plastic debris harms marine species** as they ingest or get entangled by the plastic debris. A report by Allsopp et al., found that at least 267 different species suffered from entanglement or ingestion of marine plastic debris.¹³ Abandoned, lost or discarded fishing gear also known as “ghost gear” has been categorised as one of the most deadly forms of marine plastic debris as it leads to a slow and painful death of marine animals through suffocation and exhaustion¹⁴. There is also concern of increasing exposure of marine organisms to toxic substances through ingestion of plastics and subsequent entrance into food chain.¹⁵ **Plastic pollution also affects human health** as it releases harmful chemicals and gases when left or burnt in the open. According to a report for WWF, the negative impacts of plastic impose costs to society, the environment and the economy that are not reflected in the price of plastic products. Based on estimates, the lifetime costs of plastic produced in 2019 will be at least USD 3.7 trillion, which is more than the GDP of India. While some links between the plastic life-cycle and negative impacts are known, a lack of data still limits the understanding of the extent of those impacts.¹⁶

The plastic waste when left in the open environment and oceans breaks down to microplastics which are very small plastic particles of size less than 5mm. The **presence of microplastics** has been reported ubiquitously in samples collected from the world’s oceans, reaching as far as the Arctic.¹⁷ Of the plastics entering the ocean, microplastics account for around 1.5 million tonnes.¹⁸ However, the knowledge about the effects of microplastics on the marine environment and humans is still limited.¹⁹

¹ Ryan (2015) in: Bergmann et al. (eds.), pp. 1 et seq.

² <https://www.nationalgeographic.org/encyclopedia/great-pacific-garbage-patch/>.

³ Geyer et al. (2017), pp. 1 – 5.

⁴ Tsakona and Rucevska (2020).

⁵ Kaza et al. (2018).

⁶ Ellen MacArthur Foundation (2017), p. 12.

⁷ SYSTEMIQ and The Pew Charitable Trusts (2020), p. 29.

⁸ SYSTEMIQ and The Pew Charitable Trusts (2020), p. 29.

⁹ Kaza et al. (2018).

¹⁰ DeWit et al. (2021), p. 34.

¹¹ Barrowclough et al. (2020).

¹² Thevenon et al. (2014).

¹³ Allsopp et al. (2006).

¹⁴ WWF (2020), Stop Ghost Gear.

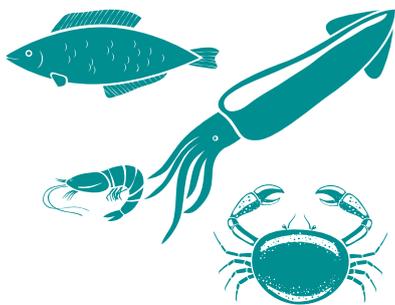
¹⁵ Thevenon et al. (2014), p. 27.

¹⁶ DeWit et al. (2021), p. 13. Societal cost of plastic produced just in 2019 revealed at US\$3.7 trillion: more than the GDP of India

¹⁷ Boucher and Friot (2017); Thevenon et al. (2014).

¹⁸ Tsakona and Rucevska (2020).

¹⁹ Zim (2021), p. 23.



AT LEAST 267 DIFFERENT SPECIES SUFFERED FROM ENTANGLEMENT OR INGESTION OF MARINE PLASTIC DEBRIS



US\$3.7 TRILLION

LIFETIME COST OF PLASTIC PRODUCED JUST IN 2019

Clearly, plastic pollution is a global problem with all countries contributing to it as well as facing the impacts of it, however variedly. Asia as a region is severely impacted by the plastic crisis. Plastic production and consumption is increasing rapidly with the economic growth and the existing plastic waste management systems are unable to keep up with the enormous quantities of plastic waste generated. Mismanagement of plastic waste in the Asian region leads to considerable leakage into the ocean.²⁰ A study by *Lebreton et al.* reported that in 2015 Asia was the largest contributor to the global plastic waste in 2015, generating 82 million tonnes of plastic waste.²¹ Estimates from 2015 by *Jambeck et al.*, indicate that the top five contributors to marine plastic pollution are from Asia.²² However, the numbers and assumptions have been contested and recently updated by Law et al. Accordingly, Indonesia, India, Thailand, China, Philippines and Japan have been among the ten countries with the highest mismanaged plastic waste generated by coastal populations in 2016.²³ The **contribution to global plastic waste** is driven by multiple factors such as high plastic production and consumption, rapid economic development, lack of sufficient waste management infrastructure and plastic waste trade. Asia represents 50% of the global plastic production with China being the largest plastic producer, generating 20% of the world's plastic.²⁴

The current waste management infrastructure in place is insufficient to manage the increasing amounts of plastic waste being generated. Indonesia, for example, generates 6.8 million tonnes of plastic waste every year out of which 4.8 million, i.e. 70%, is considered mismanaged with 48% burnt in the open, 13% dumped on land or dumpsites and 9% ending up in waterways or the oceans.²⁵ The region is also seriously impacted by **plastic waste imports**. Until recently, China was the largest importer of plastic waste, however, starting in 2018, it imposed a plastic waste ban. This resulted in a diversion of the waste that was exported to China to other countries, predominantly in Southeast Asia. Impacted by the growing amount of plastic waste import, the Southeast Asian countries also imposed similar bans.²⁶ Plastic pollution also has **economic costs** in Asian countries, e.g. due to damages of fishing boats, declining numbers of tourists and remedial costs.²⁷ Also, developing countries in Asia bear a disproportionate share of waste management costs due to imports from high-income countries.²⁸

²⁰ Several researchers studied the leakage of plastic waste into the ocean due to waste mismanagement. However, the data and assumptions used differ. See *Lebreton and Andrady (2019)*, *Jambeck et al. (2015)*, and *Law et al. (2020)*.

²¹ *Lebreton and Andrady (2019)*.

²² *Jambeck et al. (2015)*, p. 769.

²³ *Law et al. (2020)*, p. 4.

²⁴ *Lebreton and Andrady (2019)*.

²⁵ *World Economic Forum (2020)*.

²⁶ *Barrowclough et al. (2020)*.

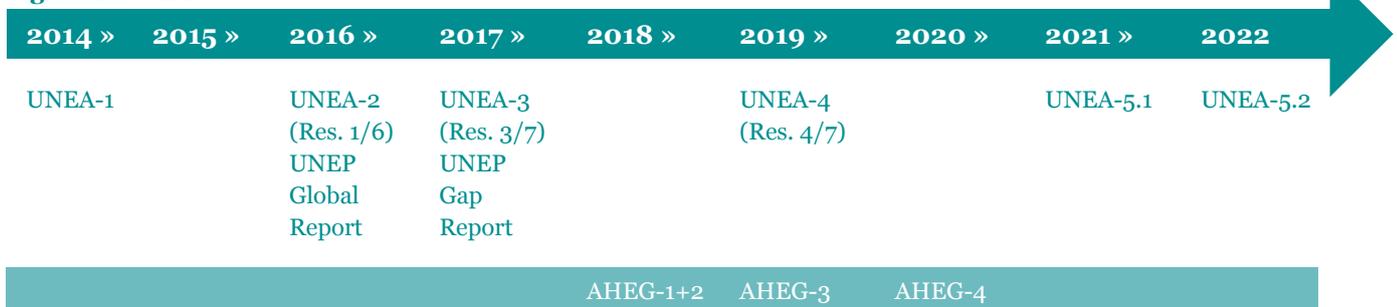
²⁷ *McIlgorm et al. (2020)*, pp. 15 – 22.

²⁸ *DeWit et al. (2021)*, p. 17.

2.2 THE ROAD TOWARDS A GLOBAL TREATY ON MARINE PLASTIC POLLUTION

Marine plastic pollution has been on the agenda of the **UN Environment Assembly (UNEA)** since its first session in June 2014. Its resolutions have shaped action on the international and national level. Over the years, the urgency with which marine plastic pollution has been addressed in the resolutions has increased. This is reflected in the description of the environmental problems caused by marine plastic pollution as well as in the calls for action. In December 2017, UNEA-3 established an **ad hoc open-ended expert group on marine litter and microplastics (AHEG)** which met on four occasions and identified options for continued work to be considered during the next session of the UN Environment Assembly.

Figure 2: UNEA timeline



This section outlines the progress made under UNEA and the outcomes achieved by AHEG. It also presents the most recent developments in preparation of UNEA-5.2, including activities in Asian countries.

2.2.1 SHAPING THE DEBATE ABOUT MARINE PLASTIC LITTER AND MICROPLASTICS VIA UNEA

Being the world’s highest-level decision-making body on the environment, UNEA sets priorities for global environmental policies and develops international law. It has adopted **resolutions on marine plastic litter and microplastics** in each of its four sessions. These aim to define the problem, to build knowledge, to strengthen existing fora, to propose solutions, to encourage action and cooperation, to identify challenges, to provide for standardisation, and to set common goals. Important progress has been made under UNEA. While a more robust framework to tackle marine plastic pollution may be needed, negotiations about a new global plastic pollution treaty will not need to start from scratch. The different UNEA resolutions demonstrate that concepts which may be of use in designing a global treaty to tackle marine plastic pollution already exist.

Although plastic pollution can have negative impacts on the environment in general, UNEA has focused its work on **marine plastic pollution** right from the start – including plastics from **sea- as well as land-based sources**. Acknowledging the differences regarding knowledge, sources, fate and impacts, all resolutions on marine plastic pollution explicitly address **microplastics**. In December 2017, UNEA-3 stressed the “importance of **long-term elimination of discharge of litter and microplastics to the oceans**”²⁹ – now the global goal for marine plastic litter and microplastics.

Over the years, UNEA has emphasised the importance of a **life-cycle approach**. In May 2016, UNEA-2 recognised that marine plastic litter and microplastic needs an urgent global response taking into account a product life-cycle approach. UNEA-4 then called upon Member States and other actors at local, national, regional and international levels to address the problem of marine litter and microplastics, prioritising a whole-life-cycle approach.³⁰ It also established a multi-stakeholder platform within UNEP to take immediate action towards the long-term elimination through a life-cycle approach. UNEA-4 further stressed the importance of more sustainable management of plastics throughout their life cycle in order to increase **sustainable consumption and production patterns**.³¹

Over the years, UNEA has facilitated **collection and building of knowledge** to enable the international community to act. In 2014, UNEA-1 commissioned a study focusing on sources of marine plastic debris and microplastics, possible measures and best available techniques to minimize the level of microplastics in the marine environment, recommendations for urgent actions, and identification of areas that require more research.³² UNEA-2 requested in May 2016 an assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches.³³ Based on the information collected, in December 2017, UNEA-3 acknowledged the increased knowledge on levels, sources, negative effects and measures to reduce marine litter and microplastics – and encouraged Member States to take action based on the best available knowledge.³⁴

²⁹ UNEA Resolution 3/7, para. 1.

³⁰ UNEA Resolution 4/6, para. 1.

³¹ UNEA Resolution 4/6, recitals.

³² UNEP (2016).

³³ UNEP (2017).

³⁴ UNEA Resolution 3/7, para. 3.

UNEA already identified areas for **government action to address the marine plastic debris and microplastic issue**. UNEA-1 encouraged governments to promote the more resource-efficient use and sound management of plastics and microplastics, and to take comprehensive action through legislation, enforcement of international agreements, provision of adequate reception facilities for ship-generated wastes, improvement of waste management practices and support for beach clean-up activities, as well as information, education and public awareness programmes.³⁵ UNEA-2 then underlined that research already undertaken provides sufficient evidence for immediate action. It also stressed the importance of **providing capacity-building and financial assistance** to developing countries to enable action.³⁶ In 2019, UNEA-4 called upon Member States to address the problem of marine litter and microplastics, prioritizing a whole-life-cycle approach and resource efficiency, building on existing initiatives and instruments, and supported by and grounded in science, international cooperation and multi-stakeholder engagement.³⁷

Also, UNEA strengthened **international cooperation**, including through existing fora. UNEA-1 encouraged cooperation with the Global Partnership on Marine Litter, a multi-stakeholder partnership providing a global platform to share knowledge and experience.³⁸ In 2019, UNEA-4 established a multi-stakeholder platform within the UNEP to take immediate action towards the long-term elimination, through a life-cycle approach, of discharges of litter and microplastics into the oceans. UNEA also ensured **coordination with work under other international conventions**. In 2014, it invited the secretariats of relevant conventions to contribute to the study on sources of marine plastic debris and microplastics. UNEA-3 invited in 2017 relevant international organisations and conventions to increase their action to prevent and reduce marine litter and microplastics and their harmful effects.³⁹

UNEA has acknowledged right from the beginning that solving marine plastic pollution needs a **multi-stakeholder approach**. Already in 2014, UNEA-1 encouraged also the private sector to promote the more resource-efficient use and sound management of plastics and microplastics.⁴⁰ UNEA-3 then noted the important role of the various key sectors to contribute to the reduction of marine litter, and encouraged innovative approaches such as the use of extended **producer responsibility** schemes, container deposit schemes and other initiatives.⁴¹ The call by UNEA-4 upon Member States to address the problem of marine litter was also addressed to other actors at various levels, including in the private sector, civil society and academia.⁴²

2.2.2 PREPARING POTENTIAL RESPONSE OPTIONS VIA AHEG

Set up by the UN Environment Assembly back in 2017, the Ad Hoc Open-Ended Expert Group on Marine Litter and Microplastics (AHEG) met on four occasions between May 2018 and November 2020. Already at its first meeting, there was a consensus that maintaining the status quo was not an option.⁴³ In line with its mandate it, among others, identified **national, regional and international response options** as well as **potential options for continued work** for consideration by UNEA.

In preparation of the meetings and to inform the discussion, countries and stakeholders were invited to provide submissions. Several Asian countries followed this invitation and shared their countries' positions – individually and not collectively.⁴⁴ Their positions on the start of negotiations on a legally binding plastic pollution treaty varied slightly, with Japan and Singapore preferring an **unprejudiced consideration of all options**, Malaysia reminding of the need to **exhaust existing mechanisms** first before considering a new instrument, Timor-Leste emphasising the **importance of an international framework**, and Philippines and Viet Nam clearly **calling for negotiations of a global treaty**.

Table 1: Submissions of Asian countries on options for continued work

Japan 	Malaysia 	Philippines 	Singapore 	Timor-Leste 	Viet Nam 
Consider all response options without prejudice	Exhaust existing mechanisms before considering a new instrument	Start negotiation of a new global treaty and discussion of its elements	Take all response options into consideration without prejudice	Legally binding international framework is a key response option	Build a global treaty within the UN

At its last meeting in November 2020, AHEG considered, among others, **potential options for continued work** for consideration by the UN Environment Assembly. It adopted the chair's summary which lists and explains the different options – including the **option of a new global instrument**.⁴⁵

³⁵ UNEA Resolution 1/6, paras. 16 – 17.

³⁶ UNEA Resolution 2/11, para. 7.

³⁷ UNEA Resolution 4/6, para. 1.

³⁸ <https://www.gpmarinelitter.org/>

³⁹ UNEA Resolution 3/7, para. 8.

⁴⁰ UNEA Resolution 1/6, para. 16.

⁴¹ UNEA Resolution 3/7, para. 6.

⁴² UNEA Resolution 4/6, para. 1.

⁴³ Accessible via: <https://www.unep.org/environmentassembly/expert-group-on-marine-litter>.

⁴⁴ See the Note from the Secretariat of 14 September 2020, UNEP/AHEG/2020/4/INF/10.

⁴⁵ Annex to the AHEG report at its fourth meeting of 18 November 2020, UNEP/AHEG/4/7

Table 2: Extract from the AHEG Chair's Summary on a new global instrument

A new global instrument
Develop a new global agreement, framework or other form of instrument to provide a legal framework of global response and to facilitate national responses especially for those countries with limited resources and capacities that could contain either legally binding and/or non-binding elements, such as:
(i) Global and national reduction targets
(ii) Design standards
(iii) Phasing out avoidable plastic products
(iv) Facilitation of national and regional action plans
(v) Sharing of scientific knowledge through a scientific panel and utilizing globally harmonized monitoring methodology
(vi) International coordination of financial and technical resources.
This option may require intergovernmental negotiating process, such as establishing an Intergovernmental Negotiation Committee, aimed to frame and coordinate such new global instrument.

During the last meeting, there was an intensive debate about the presentation of the response options. Some participants criticised the failure of the chair's summary to reflect in the list that a **majority of experts expressed the need for a new global agreement** and that there was a **growing momentum behind such an agreement**.⁴⁶

Building on the outcome of AHEG, a new global treaty will be discussed as one possible response option related to marine litter and microplastics during the second part of the fifth UN Environment Assembly (UNEA-5.2) in February 2022.



MORE THAN TWO THIRDS OF THE UN MEMBER STATES HAVE EXPRESSED THEIR SUPPORT FOR A NEW GLOBAL AGREEMENT

2.2.3 GROWING MOMENTUM AROUND THE UNEA PROCESS

In 2019, countries were still hesitant about their readiness to engage in negotiations of a global treaty to tackle marine plastic pollution. Consequently, UNEA-4 did not confer a mandate on AHEG for elaboration of one. Since then, the focus of the debate has changed. In the run up to UNEA-5.2, various countries are engaged in bilateral and multilateral discussions on the possible establishment of a negotiation process for a new global treaty to tackle marine plastic pollution.

On the occasion of the High Level Meeting on Oceans on 1 June 2021, the Alliance of Small Island States (AOSIS) presented '**Ocean Day Plastic Pollution Declaration**'⁴⁷. The endorsers commit to "work for a decision at UNEA5.2 to establish an Intergovernmental Negotiating Committee recommending starting negotiations of a global legally binding agreement to combat plastic pollution, with the aim of concluding this as soon as possible." By end of September 2021, the following countries from Asia covered in this report endorsed the declaration: Maldives, Philippines, Singapore, the Republic of Korea, Timor-Leste, and Viet Nam. According to a count by WWF, more than two thirds of the UN member states have expressed their support for a new global agreement via different fora.⁴⁸

Early in 2021, **Germany, Ghana, Ecuador and Viet Nam** have joined forces and are driving discussions on various relevant topics, including the life-cycle approach and funding, in preparation of UNEA-5.2.⁴⁹ Numerous governments are participating in the discussions as well as representatives from the private sector, civil society and academia. The **Ministerial Conference on Marine Litter and Plastic Pollution in September 2021** co-organised by the four countries and supported by UNEP was the most important milestone in preparation for February 2022. Delegates discussed a ministerial statement that lists possible principles a new agreement could be based on as well types of measures or mechanisms that could be included as elements. Discussions were prepared during pre-meetings held in May and June 2021.⁵⁰ The ministerial statement also recommends to start the negotiation a new global agreement.⁵¹ By the end of September 2021, Japan, the Philippines and Sri Lanka had already endorsed the statement.

Plastic pollution is also increasingly attracting attention in other international fora. One example is the Group of Friends to Combat Marine Plastic Pollution. It was established in June 2020 with the aim of supporting the process to explore global response options, including a global agreement.⁵²

⁴⁶ See the AHEG report at its fourth meeting of 18 November 2020, UNEP/AHEG/4/7, paras 164 et seq.

⁴⁷ <http://plasticdeclaration.aosis.org/>.

⁴⁸ See <https://plasticnavigator.wwf.de/#/en/stories/?ch=4&st=0&layers=surface-concentration|policy-commitments-area|policy-commitments>.

⁴⁹ See <https://www.bmu.de/en/pressrelease/upcoming-international-ministerial-conference-to-build-a-global-vision-to-tackle-marine-litter-and-plastic-pollution>.

⁵⁰ Documents are available at <https://wedocs.unep.org/xmlui/handle/20.500.11822/36272>.

⁵¹ The statement is available at: <https://ministerialconferenceonmarinelitter.com/>.

⁵² <https://www.norway.no/en/missions/UN/news/news-from-norway/un/CombatMarinePlastic/#Objectives>.

A close-up photograph of a hand pouring water from a clear plastic bottle into a large, dark metal container. The water is captured mid-pour, creating a dynamic splash. The background is blurred, showing a person in a blue shirt. The overall scene suggests a focus on water quality and plastic waste.

3

ASIAN PERSPECTIVES ON THE PLASTIC POLLUTION CRISIS

3.1 ASIA – A DIVERSE REGION

Asia is a diverse region with countries experiencing different challenges regarding plastic pollution. As a consequence, different countries pursue a variety of solutions and have distinctive expectations of the international community. Various countries cooperate in regional fora to address marine plastic pollution and have decided to become parties to relevant existing international treaties.

3.1.1 DIVERSITY OF THE REGION

The challenges experienced and solutions pursued depend on **various factors** such as geography, neighbouring countries, trade relations, the national plastics or recycling market, waste management capacities, access to financial resources and technical assistance, level of development, consumption patterns, the importance of the plastics industry for economic growth, political priorities, and the efficiency of enforcement.

Challenges depend on the **geography**. Island countries like Indonesia and the Philippines have long coast lines – they discharge marine litter directly into the ocean and are also affected by marine plastic pollution. In comparison, land-locked countries like Laos and Bhutan struggle with plastic pollution and contribute to marine plastic pollution indirectly, e.g. via the rivers that run through them. If **neighbouring countries** have a weak waste management system discharging considerable amounts of plastic waste into the ocean, it may end up on domestic shores.

The **level of development** also influences the challenges experienced. China and India are two large economies, which accommodate more than one third of the world's population. They consume and generate huge amounts of plastic in comparison with small countries such as Brunei and Maldives. In 2010, China and India generated 59.08 million t (Mt) and 4.49 Mt of plastic waste respectively as compared to 43,134 t and 3,688 t generated by Maldives and Brunei.⁵³ Also, looking at the plastic waste generated per capita per day, there is a considerable difference between developed economies and emerging economies. While Japan generated 0.17 kg of plastic waste per capita per day, Indonesia only produced 0.06 kg per capita per day of plastic waste in 2010 – which is around one third.⁵⁴

According to estimates, Asian countries such as Indonesia, India, Thailand, China and Philippines are among the countries with the highest mismanaged plastic waste and contribute considerably to marine plastic pollution.⁵⁵ There are also considerable differences regarding the **effectiveness of waste management**, which depends on the development of waste management infrastructure to collect, sort and recycle plastic waste. The share of global mismanaged plastic waste of developed economies like Japan and the Republic of Korea was 0.45% and 0.11% in 2010. In comparison, China's share was 27.7% and Indonesia's share was 10.1% in 2010.⁵⁶

The **plastics industry** is rather strong in some Asian countries while other countries import plastic products. In 2018, Asia was responsible for 51% of global plastics production with China accounting for 30% and Japan accounting for 4%.⁵⁷ In comparison, Maldives and Laos have little to no domestic plastic production and relying mostly on imports of plastic products. Plastic manufacturing also contributes significantly to the national economy for many developing economies in Asia. In Malaysia, for example, the plastic manufacturing industry represented around 2% (USD 7.23 billion) of the national GDP in 2018.⁵⁸ The same applies for Thailand, where the plastic manufacturing industry contributed 6.71% to the country's GDP in 2018.⁵⁹

The involvement in the **global trade of plastic waste** also varies between countries in Asia. Many Southeast Asian countries were amongst the top-20 importers in 2018 with Malaysia importing the highest amount of plastic waste in the world. On the other hand, Japan, despite having a well-developed waste management system, was the third highest plastic exporting country in the world.⁶⁰

⁵³ <https://ourworldindata.org/plastic-pollution>.

⁵⁴ <https://ourworldindata.org/plastic-pollution>.

⁵⁵ *The numbers and the country ranking, however, differ. See for details Law et al. (2020), Lebreton et al. (2019) as well as Jambeck et al. (2015).*

⁵⁶ <https://ourworldindata.org/plastic-pollution>.

⁵⁷ *PlasticsEurope (2019), p. 15.*

⁵⁸ *World Bank Group (2021), "Market Study for Malaysia: Plastics Circularity Opportunities and Barriers".*

⁵⁹ *World Bank Group (2021), "Market Study for Thailand: Plastics Circularity Opportunities and Barriers".*

⁶⁰ *Barrowclough et al. (2020).*

3.1.2 EXAMPLES OF REGIONAL COOPERATION

Asian countries are cooperating in various fora with other countries in the region and beyond to find common solutions. Most relevant, especially for regional cooperation in regard to marine plastic pollution, are the Association of Southeast Asian Nations (ASEAN) and the Coordinating Body on the Seas of East Asia (COBSEA). Under both fora, regional action plans addressing marine plastic pollution have been adopted. Other regional fora are the South Asia Co-operative Environment Programme (SACEP) which promotes regional cooperation in environmental matters and initiated the Plastic free Rivers and Seas for South Asia Project⁶¹ back in 2019, and the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) which focuses on safeguarding marine and coastal resources. However, under both fora, no action plans dedicated to or covering marine plastic pollution have been developed.

- » The **Association of Southeast Asian Nations (ASEAN)** was created in 1967 and is an economic union comprising 10 member states. These are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam. Objectives of the ASEAN include accelerating economic growth, promoting regional peace, and promoting active collaboration. To tackle the regional plastic pollution crisis, the *Regional Action Plan for Combating Marine Debris in the ASEAN Member States* was adopted in May 2021. It builds on the *Bangkok Declaration on Combating Marine Debris in ASEAN Region* and the *ASEAN Framework of Action on Marine Debris* – both adopted in June 2019.
- » The **Coordinating Body on the Seas of East Asia (COBSEA)** is a regional intergovernmental policy forum bringing together nine countries. It is responsible for the implementation of the East Asian Seas Action Plan, adopted in 1981 and revised in 1994. Participating countries are Cambodia, China, Indonesia, the Republic of Korea, Malaysia, Philippines, Thailand, Singapore and Viet Nam. COBSEA activities intend to address marine pollution, develop marine and coastal planning and management, as well as strengthen national action in this regard. To support them delivering SDG target 14.1, participating countries adopted the revised *Regional Action Plan on Marine Litter* in June 2019.

3.1.3 PARTICIPATION OF ASIAN COUNTRIES IN RELEVANT INTERNATIONAL TREATIES

Asian countries are parties to different relevant international agreements, including the *Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal*, the *United Nations Convention on the Law of the Sea (UNCLOS)*, the *International Convention for Prevention of Pollution from Ships (MARPOL)*, the *London Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matters* and the related *London Protocol*, and the *Convention on Biological Diversity*. Consequently, they are already taking action under these treaties that contribute to tackling marine plastic pollution.

Table 3: *Treaties ratified by Asian countries**

Treaty State	BC	UNCLOS	MARPOL		LC	LP	CBD
			Annex 1&2	Annex V			
 Brunei	X	X	X	X			X
 Bhutan	X						X
 China	X	X	X	X	X	X	X
 Indonesia	X	X	X	X			X
 India	X	X	X	X			X
 Japan	X	X	X	X	X	X	X
 Korea	X	X	X	X	X	X	X
 Laos	X	X					X
 Maldives	X	X	X	X			X
 Malaysia	X	X	X	X			X
 Philippines	X	X	X	X	X	X	X
 Singapore	X	X	X	X			X
 Sri Lanka	X	X	X	X			X
 Thailand	X	X	X				X
 Timor Leste		X					X
 Vietnam	X	X	X	X			X

* The X indicates that the country is party to the treaty.

⁶¹ <http://www.sacep.org/programmes/plastic-free-rivers-and-seas-for-south-asia>.

3.2 NATIONAL AND REGIONAL SOLUTIONS IN THE ASIAN REGION

All Asian countries have taken measures to tackle marine plastic pollution. However, the framing of such measures varies between the countries. While they are part of policies for recycling and waste management in some countries, other countries have integrated plastics management in their circular economy policies or address marine plastic pollution via their policies for ocean and coastal management. In some countries, these and other approaches are combined.

Some of the measures taken in Asian countries are relevant for the international debate. Corresponding requirements could be integrated into a global treaty to establish a level playing field, to avoid trade barriers, to embed national action into a comprehensive international framework, and to increase the effectivity of the measures. They could be integrated in a legally binding treaty, allowing for flexibility depending on national circumstances as there is no one-size-fits-all solution.

The examples in this section are based on the information provided by government officials in their responses to the questionnaire, supported with additional desk-based research, especially to include information from countries that either did not agree to answer the questionnaire or only provided unofficial background information. Desk-based research was also conducted to allow a better understanding of the solutions showcased in this section.

3.2.1 ACTION PLANS TO RESPOND TO PLASTIC POLLUTION

In Asia, countries have started to respond to the plastic pollution crises via national and regional action plans.

For example, Indonesia, Japan and Viet Nam have already adopted national action plans dedicated to marine plastic pollution. In their responses to the questionnaire, government officials from Malaysia, the Philippines and Sri Lanka shared that they are currently in the process of preparing such dedicated action plans.⁶² Other countries have integrated their response to marine plastic pollution in more overarching action plans or other policy documents. Laos, as land-locked country, is in the process of preparing a national plastics action plan. Thailand's government approved the *National Action Plan on Plastic Waste Management*⁶³ in February 2021 which lists the development of a law to solve the problem of marine plastic pollution as one measure. China released its *14th Five-Year Plan of Action for Plastic Pollution Control*⁶⁴ in September 2021 and the Republic of Korea has adopted its *National Action Plan for the Management of Ocean Waste and Pollutants*⁶⁵ in May 2021 which also covers marine plastic pollution.

The existing national action plans in the Asian region can guide other countries in their planning efforts. For example, Indonesia, Japan and Viet Nam have determined time-bound targets and have identified similar areas of work:

-  Indonesia adopted the *National Plan of Action for Marine Plastic Debris Waste Management (2018-2025)*⁶⁶ in September 2018. It determines, among others, five strategies to reduce marine plastic litter by 70% until 2025. The strategies aim at (1) raising awareness of stakeholders, (2) reducing leakage from land-based sources, (3) management of leakage from sea-based sources and the coast, (4) funding for the strengthening of implementation and enforcement, and (5) research and development. Implementation is facilitated by the National Coordinating Team for Handling Marine Debris, which is chaired by the Coordinating Minister for Maritime Affairs and Investment.⁶⁷
-  Japan released its *National Action Plan for Marine Plastic Litter*⁶⁸ in May 2019. It aims to prevent the release of plastic litter into the ocean and lists countermeasures (1) to promote proper waste management systems, (2) to prevent littering, illegal dumping and unintentional leakage of waste, (3) to collect scattered waste on land, (4) to recover plastic litter in the oceans, (5) to innovate the development of alternative materials and conversion to those, (6) to collaboration with stakeholders, (7) to cooperation internationally to promote measures in developing countries, and (8) to survey the actual situations and accumulation of scientific knowledge. It also lists indicators to measure the results achieved. Time-bound targets are not determined in the national action plan itself, but in the *Resource Circulation Strategy for Plastics*⁶⁹ of May 2019. Japan, for example, aims to reduce single use plastics by 25% by 2030 and to either reuse or recycle 60% of containers and packaging by 2030.
-  Viet Nam adopted its *National Action Plan for Management of Marine Plastic Litter* by 2030⁷⁰ in December 2019. It is designed as a strategic policy instrument and determines objectives, tasks and solutions, as well as responsibilities for

⁶² See <http://www.switch-asia.eu/event/planning-workshop-for-a-national-action-plan-on-plastics-in-lao-pdr/>.

⁶³ Thailand, *National Action Plan on Plastic Waste Management*.

⁶⁴ China, *14th Five-Year Plan of Action for Plastic Pollution Control*.

⁶⁵ Republic of Korea, *National Action Plan for the Management of Ocean Waste and Pollutants*.

⁶⁶ Indonesia, *National Plan of Action for Marine Plastic Debris Waste Management (2018-2025)*.

⁶⁷ See <https://sampahlaut.id/welcome/>.

⁶⁸ Japan, *National Action Plan for Marine Plastic Litter*.

⁶⁹ Japan, *Resource Circulation Strategy for Plastics*.

⁷⁰ Viet Nam, *Prime Minister Decision No. 1746/QĐ-TTg of 4 December 2019*.

implementation. The national action plan aims to prevent the discharge of plastic debris from land-based waste sources and marine activities and determines some time-bound targets, e.g. the target to reduce marine litter by 50% in 2025 and by 75% in 2030 or the target to stop the use of single-use plastics in coastal tourism areas by 80% in 2025 and by 100% in 2030. It lists tasks and solutions for the following five different areas: (1) education and change to behaviour pertaining to plastics and marine plastic litter, (2) collection, classification, storage, transfer and processing of plastic waste from coastal and ocean-based activities, (3) control of plastic litter at source, (4) international cooperation, scientific research, application, development and transfer of marine plastic litter processing technologies, and (5) consistent and effective investigation, survey, review, research and formulation of mechanisms for marine plastic litter management. The overall responsibility for implementation is assigned to Ministry of Natural Resources and Environment, but various other ministries are assigned specific tasks.

There is also regional cooperation to tackle marine plastic pollution. One example is the *Regional Action Plan for Combating Marine Debris in the ASEAN Member States* which has been adopted in May 2021. It builds on the *Bangkok Declaration on Combating Marine Debris in ASEAN Region* and the *ASEAN Framework of Action on Marine Debris*. The plan identifies the current status and challenges of marine plastic pollution in the region, and refers to new issues emerging in the context of the COVID-19 pandemic – notably the increased production and consumption of plastics and the difficulties encountered in regard to recycling. It identifies four areas of action: (1) policy support and planning in order to create an effective framework and legal measures, (2) research, innovation and capacity building (3) public awareness, education and outreach, and (4) private sector engagement. The 14 actions identified by the plan are clustered under these four areas, several of them intend to develop guiding principles and best practice manuals, for example on standards and technical requirements for plastic packaging and labelling, phasing out of single-use plastics, plastic waste trade or common methodologies for assessing and monitoring plastic litter. Other relevant actions include the conduct of a regional study on microplastics, the enhancement of consumers’ awareness, or the establishment of a regional platform for EPR knowledge and implementation support.⁷¹ The listed actions show in which areas coordination and cooperation across national borders is necessary.

3.2.2 PHASE OUT OF SINGLE-USE PLASTIC

Most Asian countries have started to implement measures to prevent marine plastic pollution, especially to phase-out of certain single-use plastic products. However, the approach and scope of the measures vary from country to country.

-  Bhutan reinforced a ban on the use and sale of plastic carrier bags and ice cream pouches in April 2019 that was first introduced twenty years before. However, enforcing the ban and finding suitable alternatives remain challenging.⁷²
-  Brunei expanded its “No Plastic Bag Weekend Initiative” of 2011 to the “No Plastic Bag Everyday Initiative” in 2018. It aims at the phase-out of distribution of single-use plastic bags in participating stores. Also in 2018, the “Plastic Bottle Free Initiative” was launched banning the use of single-use plastic beverage bottles on the premises of the Ministry of Development.⁷³
-  In January 2021, a ban of single-use plastic straws in restaurants and of single-use plastic bags in stores came into effect in China. Local authorities may impose a fine in case of non-compliance.⁷⁴
-  India has prohibited the production, import, stocking, distribution, sale and use of single-use plastic items which have low utility and high littering potential with the *Plastic Waste Management (Amendment) Rules, 2021*. The ban will be effective from July 2022.⁷⁵
-  In Indonesia, a number of cities have banned the use of single-use plastic, including Jakarta.⁷⁶
-  In December 2019, Japan agreed to introduce fees for plastic shopping bags in all stores from July 2020 on.⁷⁷ Awareness raising campaigns started in January 2020. In addition, Japan revised the *Act on the Promotion of Resource Circulation for Plastics* in June 2021. It now stipulates criteria for measures which providers should take to reduce the total amount of plastic-containing products.⁷⁸ The revisions will become effective in April 2022.
-  In the process of amending its *Act on the Promotion of Saving and Recycling of Resources* in December 2018, the

⁷¹ ASEAN Regional Action Plan for Combating Marine Debris.

⁷² <https://businessbhutan.bt/2020/06/16/second-time-plastic-ban-not-a-success-story/>.

⁷³ Akenji and Bengtsson (2019), p. 44.

⁷⁴ <https://www.loc.gov/item/global-legal-monitor/2021-03-23/china-single-use-plastic-straw-and-bag-ban-takes-effect/>.

⁷⁵ India Plastic Waste Management Rules 2021.

⁷⁶ See <https://wri-indonesia.org/en/blog/3-key-interventions-support-ban-single-use-plastic>.

⁷⁷ Japan, Ministerial Order related to the Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging.

⁷⁸ Japan, Act on the Promotion of Resource Circulation for Plastics.

Republic of Korea introduced a ban on the use of single-use plastic bags in large stores and supermarkets.⁷⁹ In August 2019, the Republic of Korea adopted a ban on the use of plastic materials that are difficult to recycle such as PVC plastics and coloured PET plastic bottles. The Republic of Korea is currently implementing its plan to gradually phase out more single-use plastic products in more and more localities, e.g. plastic straws in cafés, plastic bags at retailers and bakeries and plastic umbrella covers at government buildings.⁸⁰

-  *Malaysia's Roadmap towards Zero Single-Use Plastics 2018-2030*⁸¹ was launched in October 2018. It is designed as voluntary guidance and covers single-use plastics in general.
-  In July 2021, the House of Representatives passed the *Single-Use Plastic Products Regulation Act*⁸², it has been transmitted to the Senate. Within a period of four years from the effectivity, selected single-use plastic products will be phased out.
-  In Sri Lanka, a ban on single-use and short-term use plastics became effective in March 2021.⁸³ It applies to selected products, including non-medical cotton buds and thin lunch sheets.
-  After a campaign launched by Thailand's government, major stores banned single-use plastic bags in January 2020.⁸⁴ It is expected that the ban will be expanded to all single-use plastic bags.
-  Timor Leste has adopted an import ban on non-recyclable and non-biodegradable single-use plastics, as well as a general ban on the distribution of single-use plastic bags, straws, cutlery and cups in September 2020.⁸⁵
-  Viet Nam has integrated a requirement to reduce single-use plastic products and other non-biodegradable plastic packaging in its revised Law on Environmental Protection⁸⁶ in November 2020.

3.2.3 EXTENDED PRODUCER RESPONSIBILITY

Various countries in Asia, especially the emerging economies, are discussing and implementing extended producer responsibility (EPR) schemes to manage the increasing amounts of mismanaged plastic packaging waste. Such EPR schemes are seen as a key environmental policy tool based on the polluter pay principle. They intend to shift the financial and operational responsibility for the products' end of life management from taxpayer to producer.⁸⁷

Countries in Asia have different levels of EPR implementation. Developed economies have mature EPR schemes focused on recycling of plastic packaging: Japan already introduced EPR for packaging back in 1995 via the *Packaging Recycling Act*⁸⁸ and the Republic of Korea could increase recycling rates after adopting its EPR scheme in 2000⁸⁹. Other Asian countries have introduced EPR schemes only recently – they target different objectives.

India introduced an EPR scheme for used multi-layered plastic sachet or pouches and packaging in 2016, shifting the responsibility for waste collection to producers.⁹⁰ In 2020, the country adopted policy guidelines to improve implementation and to involve producers in other stages of waste management, including transportation, recovery, recycling and disposal.⁹¹ China adopted an EPR plan in 2016, among others for packaging. It provided for the development of a policy framework by 2020 and the adoption of laws and regulations by 2025.⁹² Viet Nam only recently introduced EPR when revising its *Law on Environmental Protection in 2020*. It assigns producers and importers the responsibility for recycling as well as for waste collection and treatment.⁹³

Other Asian countries are preparing to introduce EPR Schemes: The government official from Sri Lanka explained in response to the questionnaire that provisions on EPR will be added to the National Environmental Act when amending it.⁹⁴ According to the representative of Malaysia, the country plans to integrate voluntary EPR in its National Marine Litter Action Plan when preparing it. And, according to its *Single-Use Plastics Phase-Out Plan (2020 – 2023)*, Maldives intends to adopt legislation on EPR by December 2021.

⁷⁹ See <https://edition.cnn.com/2018/12/31/asia/south-korea-plastic-bag-ban-intl/index.html>.

⁸⁰ See <https://m.koreatimes.co.kr/pages/article.asp?newsIdx=279161>.

⁸¹ Malaysia, *Roadmap towards Zero Single-Use Plastics 2018-2030*.

⁸² Philippines, *House Bill No. 9147, also known as Single-Use Plastic Products Regulation Act*.

⁸³ Sri Lanka, *National Environmental (Plastic Material Identification Standards) Regulations No. 01 of 2021*.

⁸⁴ <https://www.reuters.com/article/us-thailand-environment-plastic-idUSKBN1Z01TR>.

⁸⁵ Timor Leste, *Decree Law 37/2020*.

⁸⁶ Viet Nam, *Law No. 72/2020/QH14 on Environmental Protection of 17 November 2020*.

⁸⁷ OECD (2016).

⁸⁸ For more information see Yamakawa (2013).

⁸⁹ See for an assessment of the scheme Kim (2010).

⁹⁰ India, *Plastic Waste Management Rules, Rule 9*.

⁹¹ India, *Uniform Framework for EPR*.

⁹² China, *Plan on EPR Implementation*.

⁹³ Viet Nam, *Articles 54 and 55 of Law No. 72/2020/QH14 on Environmental Protection of 17 November 2020*.

⁹⁴ For information see also Doerpinghaus et al. (2021), p. 9.

Singapore is taking a step-wise approach: The country introduced a mandatory packaging reporting framework via its *Resource Sustainability Act 2019*. It requires large producers of packaged products, such as brand owners, manufacturers and importers, as well as retailers such as supermarkets, to annually collect packaging data as well as to develop and submit plans for reducing, reusing or recycling of packaging. This will lay the foundation for an EPR framework no later than 2025. Under the first phase of the EPR for packaging waste, the beverage containers return scheme will be introduced in 2023.⁹⁵

3.3 CHALLENGES AND NEEDS IN THE ASIAN REGION

Marine plastic pollution is perceived as an environmental problem that requires international attention in almost all Asian countries. Despite the solutions already pursued at national and regional level, challenges remain. Cooperation to address the challenges identified is already organised via existing fora. However, there is no regional forum organising cooperation of all countries in the Asian region. Also, as an example, plastic products and waste are traded globally and are therefore regulated more effectively at the international level. While some challenges are shared across the Asian region, other challenges are country-specific and depend on various factors (see Section 3.1.1).

This section relies on responses to the questionnaire given by government officials from countries in the Asian region. To ensure readability, the text refers to the countries when discussing challenges and needs – please check Section 8.4 for information about the government officials answering the questionnaire from the respective country. To back up the information given to the questionnaire and to better understand their context, additional desk-based research was conducted.

3.3.1 LACK OF DATA ALONG THE LIFE-CYCLE OF PLASTICS

Asian countries experience data and knowledge gaps along the life cycle of plastics – from manufacturing to waste management including collection, recycling and disposal. Data gaps relate to the amounts of plastic exported and imported, the quantity of plastic packaging put on the market and information about end-of-life activities such as collection, recycling and dumping rates. Asian countries also struggle with limited access to available information which is not shared by the relevant stakeholders, including businesses, municipalities and waste management companies.

In response to the questionnaire, government representatives raised the following points: Laos reported about a lack of data and mentioned data from customs about the import of single-use plastic products as an example. Similar challenges were mentioned by Maldives and Malaysia – both countries lack data to monitor plastic production, consumption, waste collection and recycling. Data on plastics produced locally and the import of non-hazardous plastics is also lacking in the Philippines. Such challenges with data gaps are raised in literature for almost all emerging economies in Asia.⁹⁶

Some countries are now taking first steps to address such data gaps. Singapore set up a mandatory packaging reporting framework under its *Resource Sustainability Act*⁹⁷ to gather information from companies about packaging introduced into the country. Maldives' *Single-Use Plastic Phase-Out Plan (2020-2023)*⁹⁸ determines the initiation of a national data collection mechanism to identify product packaging of imported products as one of four short-term targets. However, these are individual cases that do not comprehensively respond to the challenge.

3.3.2 GAPS IN MONITORING AND KNOWLEDGE ON MARINE PLASTIC POLLUTION

Currently, knowledge about possible impacts of marine plastic litter and microplastics on the environment, society and economy is largely lacking. In addition, access to research conducted by other countries is limited in the Asian region.⁹⁹ Countries also lack monitoring data and struggle with a lack of harmonisation and standardisation of methodologies to set up monitoring systems and to assess the data collected.¹⁰⁰

These challenges were reported by representatives from different Asian governments: Bhutan and Viet Nam, for example, emphasised in their responses to the questionnaire a lack of technical expertise and knowledge about the impact of plastics on ecosystems, the society and the economy. Singapore highlighted that there is a current lack of internationally accepted methodology on monitoring of marine litter, which has posed challenges to monitoring and data collection.

⁹⁵ <https://www.nea.gov.sg/media/news/news/index/nea-to-implement-deposit-refund-scheme-as-first-phase-of-extended-producer-responsibility-framework>

⁹⁶ Modak et al. (2017), p. 51.

⁹⁷ Singapore, *Resource Sustainability Act 2019*, Article 10-12.

⁹⁸ Maldives, *Single-Use Plastics Phase-Out Plan (2020 – 2023)*, Targets p. 8.

⁹⁹ Lyons et al. (2019), pp. 85 – 89.

¹⁰⁰ Busch et al. (2021), p. 7.

Countries are now taking first steps to facilitate monitoring and knowledge building – both, nationally and regionally:

According to its *National Action Plan for Management of Marine Plastic Litter*¹⁰¹, Viet Nam aims to develop a monitoring network for marine plastic litter by 2025. Japan's National Action Plan for *Marine Plastic Litter* also lists conducting research on impacts of marine plastic litter on human health and ecosystem as a crucial action point.¹⁰² Japan also published *Guidelines for Harmonizing Ocean Surface Microplastic Monitoring Methods* to make a comparison of monitoring data possible.¹⁰³ Similarly, the *National Action Plan for the Management of Ocean Waste and Pollutants*¹⁰⁴ in the Republic of Korea aims at strengthening its monitoring system.

At the regional level, The *ASEAN Regional Action Plan for Combating Marine Debris* identifies data concerning sources of ocean plastic pollution as a gap and mentions the limited knowledge about impacts of microplastics. To address this, it lists developing a guidebook on common assessment and monitoring methodologies for marine litter, strengthening the ASEAN regional knowledge network on marine plastics, and conducting a regional study on microplastics as actions for the period until 2025. Similarly, the *COBSEA Regional Action Plan on Marine Litter* lays down a list of actions to improve the monitoring and assessment of marine litter.¹⁰⁵

3.3.3 ACCESS TO FINANCIAL RESOURCES AND TECHNOLOGY

Developing economies in the Asian region have limited access to financial resources, new technology and capacity building required for effective policy making and utilisation of new technologies.¹⁰⁶ The financial resources in developing countries are currently insufficient to develop the infrastructure needed to manage the increasing amount of plastic waste. The *Plastics Policy Playbook* report by Ocean Conservancy estimates a funding gap of USD 28-40 per ton in the 5 Asian countries most affected by marine plastic pollution, namely, China, Indonesia, the Philippines, Thailand and Viet Nam.¹⁰⁷ Indonesia's National Plastic Action Partnership estimates that capital investments of around USD 18 billion will be required between 2017 and 2040 to meet the marine plastic waste reduction target.¹⁰⁸

The government officials from different countries in the region emphasised the need for access to financial resources and technology as a crucial step in addressing plastic waste issues in their respective countries. Malaysia highlighted the need for financial support and capacity building for its industry, especially small and medium-sized enterprises (SMEs), transitioning to circular economy and improving local recycling capacities. It would also benefit from access to technology, e.g. for the development of alternative materials, for recovery and recycling, and for innovation in product design. Maldives as well conveyed lack of funding, especially to improve the current waste management capacities, as a bottleneck in managing increasing amounts of plastic waste. Laos also raised the need for assistance in the form of investment and technology transfer for the plastic manufacturing industry. The representative of Thailand mentioned a need for technical assistance and funding for the development of guidelines for plastic waste management. Similarly, finding sufficient funding for prioritized policies and technical measures is stressed by Viet Nam in its official submission to AHEG-4.¹⁰⁹ Viet Nam reported that the funding by international donor community is currently insufficient as well as uncoordinated and scattered.

Different countries have also addressed the lack of financial and technological support in their national and regional action plans. Viet Nam, for example, addresses the lack of financial resources and new technology in the *Viet Nam National Action Plan for Management of Marine Plastic Litter by 2030*. It aims to “attract international technical assistance and investment in control of marine plastic litter; receive models of management and technologies for manufacture of alternative products, plastic waste recycling and transition to a circular economy and green growth”. The *ASEAN Regional Action Plan for Combating Marine Debris* proposes to establish a regional platform to support innovation and investment in plastics and plastic waste management.¹¹⁰

3.3.4 LIMITED RESPONSE OPTIONS FOR COASTAL PLASTIC POLLUTION

It has been estimated that 20-30% of the world's ocean plastics come from sources such as fishing nets, ropes, and fleets¹¹¹. At the global level, out of 12.2 million tonnes (Mt) of plastic entering the marine environment per annum, 1.75 Mt per annum is fishing and shipping litter.¹¹² The East Asian seas are reported to have the world's highest concentrations of shipping and fishing vessel

¹⁰¹ Viet Nam, Prime Minister Decision No. 1746/QĐ-TTg of 4 December 2019.

¹⁰² Japan, National Action Plan for Marine Plastic Litter, see <https://g20impl.org/partners/japan>

¹⁰³ Michida et al. (2019).

¹⁰⁴ Republic of Korea National Action Plan for the Management of Ocean Waste and Pollutants.

¹⁰⁵ COBSEA Regional Action Plan on Marine Litter, p.5.

¹⁰⁶ ASEAN Regional Action Plan for Combating Marine Debris, p. 7 – 11.

¹⁰⁷ Ocean Conservancy (2019), p. 19.

¹⁰⁸ NPAP Indonesia (2020), p. 3.

¹⁰⁹ The submissions are available via this website: <https://www.unep.org/environmentassembly/expert-group-on-marine-litter>.

¹¹⁰ ASEAN Regional Action Plan for Combating Marine Debris, p. 28.

¹¹¹ <https://ourworldindata.org/ocean-plastics>.

¹¹² Sherrington (2016), p. 1.

activity thus generating large quantities of plastic waste from the ships and vessels. The Republic of Korea for example is reported to abandon 60% of the fishing nets at sea.¹¹³ This pollution from sea-based sources is supplemented by the plastic discharged into the oceans from land-based sources, e.g. caused by plastic waste mismanagement. Due to the transboundary movement of marine plastic litter in the seas and oceans, island countries and countries with long coastlines in Asia are particularly affected. Marine plastic pollution is a cross-border issue and has effects beyond national marine zones, i.e. beyond national jurisdictions.¹¹⁴

Countries face challenges due to their geography. Indonesia and the Philippines are the world's largest archipelagic countries with the Philippines comprising more than 7,641 islands. In addition, there are several small island countries like Sri Lanka, Maldives, and Timor Leste. Marine plastic litter travels distances in the oceans ending up on the shores of other countries as well as in the high seas adjacent to coastal nations or archipelagic countries.

Government officials from different countries highlighted limited response option in their responses to the questionnaire. Maldives and Sri Lanka, for example, reported high levels of harmful plastics at domestic shores, likely originating from ships and fishing vessels transiting the Indian Ocean and from neighbouring countries in the Indian Ocean. Since the plastic ending up on the shores of these countries cannot be traced back to the source, there are only limited response options at the national level to address such coastal plastic pollution.

3.3.5 INEFFECTIVE MANAGEMENT OF PLASTIC WASTE

All countries in the Asian region have policies or legislation for waste management, either on national or on sub-national level. However, there is a need for state support and improved waste management systems.¹¹⁵ 70-80% of all the marine plastic litter is reported to be generated from land-based sources, as a result of ineffective and insufficient plastic waste management systems.¹¹⁶ In Asia, there is an increase in consumption of single-use plastics due to the rapid economic growth, urbanization and due to a change in consumption and production patterns. The current waste management infrastructure including separation, collection, sorting and recycling is insufficient to meet the increasing amounts of plastic waste generated.¹¹⁷ This was highlighted by almost all representatives from developing economies in Asia.

A low rate of waste separation in Asia's emerging economies leads to contamination of plastic waste thus making it difficult to collect and recycle.¹¹⁸ The collection rate for plastic waste varies between countries: While countries such as Japan, the Republic of Korea and Singapore have a high collection rate, the rate is below 50% in some developing countries.¹¹⁹ Even within a country, the collection rates vary. While they are usually high in urban areas, they are comparatively low in rural and remote areas. For example, in Viet Nam the collection rates in urban areas range between 83-85% while suburbs report collection rates of 60-70%.¹²⁰ Similarly, for Indonesia, urban areas report average collection rates of around 74% compared to rural and remote areas with 20% and 16% collection rates respectively.¹²¹ Reasons include inadequate infrastructure and equipment and insufficient staff.¹²² But even if collected, plastic waste may still end up in the ocean. According to estimates for the Philippines, around 74% of the plastic waste leakage into the ocean originates from already collected garbage.¹²³ The fact that haulers can unload their trucks into water bodies to save costs indicates inadequate controls and sanctions.

Under-developed waste collection infrastructure leads to the generation of large amounts of mismanaged plastic waste. In Indonesia, for example, 70% of the plastic waste is considered mismanaged. This also leads to considerable low rates of recycling by the formal sector. A market study done by the World Bank for Thailand, Malaysia and the Philippines reported recycling rates of just 17.6%, 24% and 29% of key plastic resins in 2019.¹²⁴ The reasons can be attributed to limited domestic recycling capacities, including a lack of technology and infrastructure. In emerging economies in Asia, a considerable amount of plastic waste is recycled by the informal sector. For example, in India, the recycling rates achieved by the informal sector are as high as 50 to 70%.¹²⁵

The problem for some countries is further aggravated by the plastic waste imports which compete with domestic plastic waste. For example, Viet Nam in 2018 recycled 924 kilo tonnes (kt) of plastic waste out of which 615 kt, i.e. 66%, comes from imported waste.¹²⁶ After the China import ban of 2018, the plastic waste import into countries in Southeast Asia increased. This results in a

¹¹³ UNEP, COBSEA and Stockholm Environment Institute (2019).

¹¹⁴ Sarwar et al. (2021), p. 19.

¹¹⁵ UNESCAP SSWA (2020), p. 7.

¹¹⁶ Sherrington (2016) p. 1.

¹¹⁷ Akenji et al. (2020), in: Letcher (ed.), pp. 531 – 567; Heinrich Böll Stiftung Hong Kong Office et al. (2021), pp. 42 – 44.

¹¹⁸ Akenji et al. (2020), in: Letcher (ed.), pp. 531 – 567.

¹¹⁹ Modak et al. (2017), p. 65.

¹²⁰ Modak et al. (2017), p. 65.

¹²¹ <https://www.systemiq.earth/npap-indonesia/>.

¹²² UNESCAP SSWA (2020), p. 3.

¹²³ UNEP et al. (2020), p. 2.

¹²⁴ <https://www.worldbank.org/en/region/eap/publication/plastic-circularity-market-study-series-thailand-malaysia-and-the-philippines>.

¹²⁵ Nandy et al. (2015), pp. 167 – 181.

¹²⁶ IUCN, EA, QUANTIS (2020).

selection of developing countries having to bear a disproportionate share of waste management costs.¹²⁷ For example, the plastic waste import to Malaysia from Germany doubled within a year in 2018. Other countries in the region such as Indonesia and Viet Nam have also recorded a high inflow of plastic waste since the ban on plastic waste import by China.¹²⁸ NGO's have warned of the seriousness of the effects of the ban on other Asian states.¹²⁹ Post China's ban, countries in Asia have started taking various countermeasures to control the plastic waste import. Thailand, for example, has imposed restrictions on the quantity of the plastic imports with an aim to achieve a complete ban in 2026.¹³⁰

3.3.6 ENGAGEMENT OF THE INDUSTRY SECTOR

Engaging the industry sector in tackling marine plastic pollution proves challenging in most Asian countries. The sector is quite diverse and includes not only plastic producers, but also retailers, importers, packaging firms and transport firms. Many industries use plastic at various production stages; consequently, the plastic market is expected to grow in the coming years. In 2018, Asia was responsible for 51% of global plastics production with China accounting for 30% and Japan accounting for 4%.¹³¹ Plastic also contributes to economic growth and employment. For example, in Malaysia, the plastic industry contributed USD 7.23 billion to the national economy in 2018, representing around 2% of Malaysia's GDP. The country has around 1,300 plastic manufacturers with around 81,500 employees.¹³²

The UN Environment Assembly noted the important role of the plastic industries in tackling marine plastic pollution and encouraged innovative approaches.¹³³ Various Asian countries are researching and testing such approaches, including public-private partnerships and extended producer responsibility schemes. Introducing such schemes requires time, constructive exchange and a gradual introduction to secure industry support. Viet Nam reported on challenges due to a lack of global rules, standards or recommended practices to engage the industry sector in its AHEG submission.¹³⁴ The representatives of Bhutan and Maldives pointed to their limited influence as importing countries in their responses to the questionnaire. Similarly, the representative of Indonesia reported that the bargaining position of the government is rather weak when faced directly with multinational corporations. The representative for the Philippines informed about a strong pushback from the plastic manufacturing and distribution industry opposing total institutional bans on plastic in the response to the questionnaire.

Regional instruments also reflect the challenge of engaging the industry sector. The *ASEAN Regional Action Plan for Combating Marine Debris* of May 2021 states that plastic producers do not have a responsibility for the waste their products generate yet. It emphasises that the private sector is key to tackling marine plastic pollution and needs the right enabling conditions.¹³⁵ The *COBSEA Regional Action Plan on Marine Litter* of June 2019 also reflects the importance of stakeholder involvement and requires participating countries to involve local communities, the private sector and civil society organisations in the development and implementation of efforts.¹³⁶

¹²⁷ DeWit et al. (2021), p. 17.

¹²⁸ Röchling Stiftung (2020).

¹²⁹ GAIA (2019), p. 40.

¹³⁰ https://www.pcd.go.th/pcd_news/14133/ (in Thai).

¹³¹ PlasticsEurope (2019).

¹³² MPMA and MPRA (2019), p. 9.

¹³³ UNEA Res 3/7, para. 6.

¹³⁴ The submissions are available via this website: <https://www.unep.org/environmentassembly/expert-group-on-marine-litter>.

¹³⁵ ASEAN, *Regional Action Plan for Combating Marine Debris*, p. 14.

¹³⁶ COBSEA, *Regional Action Plan on Marine Litter*, p. 6

An underwater photograph showing a large, clear plastic bag floating in the water. Inside the bag, a small crab is visible. The water is blue and contains many small, white plastic particles. The overall scene illustrates the impact of plastic pollution on marine life.

4

ASIAN POSITIONS ON A GLOBAL PLASTIC POLLUTION TREATY

Marine plastic pollution is a global challenge that needs a response on the international level. Existing regional approaches are not sufficient to tackle marine plastic pollution and would benefit from a robust international governance framework.¹³⁷ Currently, there are considerable gaps in the international governance framework for marine plastic pollution.¹²⁸ A new global treaty needs to build on the existing international governance framework.

Across the Asian region, countries are aware of the ongoing discussions in preparation for UNEA-5.2. While some countries have expressed their support for a new legally binding global treaty to tackle marine plastic pollution, other countries remain cautious and want to conduct more research first, prefer to further explore all possible options, or suggest strengthening existing mechanisms or treaties as the priority action.

By the end of September 2021, out of the countries covered in this report, Maldives, Philippines, Singapore, the Republic of Korea, Timor-Leste and Viet Nam had endorsed the ‘Ocean Day Plastic Pollution Declaration’ presented by the Alliance of Small Island States on the occasion of the High Level Meeting on Oceans on 1 June 2021. The endorsors commit to “work for a decision at UNEA5.2 to establish an Intergovernmental Negotiating Committee recommending starting negotiations of a global legally binding agreement to combat plastic pollution, with the aim of concluding this as soon as possible.” At the G20 Environment Ministers’ meeting in July 2021, Japan communicated its support for the establishment of an Intergovernmental Negotiating Committee.¹³⁹ Also, by the end of September 2021 Japan, Philippines and Sri Lanka had already endorsed the ministerial statement discussed at the Ministerial Conference on Marine Litter and Plastic Pollution in September 2021, which recommends the start of negotiations.

In their responses to the questionnaire, government officials from other Asian countries expressed their openness for a global plastic pollution treaty and shared their thoughts on its added value. For example, the representative from Laos would welcome international rules for plastic waste management besides the ones established by the Basel Convention. The representative of Sri Lanka shared that he sees the added value of a global plastic pollution treaty in knowledge generation, access to financial resources, and increased international cooperation. The representatives from Bhutan also elaborated on the added value of a global plastic pollution treaty for the country and emphasised that a treaty would need to offer solutions for reducing plastic production and use. And finally, the representative of Thailand identified concrete and measurable reduction targets and time-frames for implementation as an added value since they would set a framework for national action.

Via the questionnaire, government representatives were asked where they see the added value of a new global treaty to tackle marine plastic pollution. The points shared mainly addressed the topics regulation of plastic products, improvement of waste management and means of implementation (see Table 4). Of particular interest, especially for government representatives from developing countries, were the import of plastic products and plastic waste in light of limited capacities to regulate such imports and to properly manage plastic waste. While most of the points mentioned could be picked up in the negotiations, some may be better addressed under existing international treaties like the Basel Convention or the London Convention.

The responses to the questionnaire also revealed concerns that need to be discussed and addressed. For example, the representative of Malaysia shared concerns regarding capacities and resources needed for the negotiation and implementation of a new global treaty. He therefore suggested to strengthen existing mechanisms and treaties first – also to avoid duplication of efforts. Other concerns expressed in the responses to the questionnaire evolve around the design of the treaty and whether it takes account of different national circumstances, capacities and challenges.

Table 4: Added value of a global treaty

Topic		Positions on the added value shared by government representatives
Plastic products		<ul style="list-style-type: none"> International rules for the production and use of single-use plastics Incentives for the development of affordable and sustainable alternatives to plastics International rules for buy-back of imported plastic products Pressure for multi-national corporations to act responsible and find alternatives International labelling requirements to inform about plastic materials used in products
Waste management		<ul style="list-style-type: none"> Reduction of plastic waste from ships and neighbouring countries Strategies for plastic waste management Reduction of plastic waste imports to countries with limited management capacities Minimise illegal dumping of plastic waste
Means of implementation		<ul style="list-style-type: none"> Capacity building to set up effective waste management systems Access to financial resources Technology transfer, especially to increase recycling capacities

¹³⁷ Wienrich et al. (2021), p. 35.

¹³⁸ Notten (2019), p. 32.

¹³⁹ See http://www.env.go.jp/en/focus/statement_by_koizumi_shinjiro_minister_of_the_environment_japan_at_g20_environment_ministers_meeting.html

The expectations of a global plastic pollution treaty and its elements shared by government representatives as response to the questionnaire and during the workshops were quite diverse, but also pointed to themes of importance for a majority of countries:

- » A new treaty should be guided by the precautionary principle, the principle of common but differentiated responsibilities and the polluter pays principle.
- » The treaty should facilitate a life-cycle approach and should enable the shift to a circular economy to avoid leakage of plastic waste into oceans.
- » The treaty should respect national circumstances and capacities, especially efforts of developing countries to grow economically.
- » The treaty requirements should allow for sufficient flexibility for a targeted response at the right time and at the right place with support of the relevant stakeholders.
- » To facilitate implementation, the treaty should include provisions on access to financial resources, technology transfer and capacity building.

The government officials also shared some expectations regarding the negotiation process in response to the questionnaire indicating the need for inclusiveness and transparency:

- » Major stakeholders, including the plastics industry, should be involved to make sure they are on board.
- » Developing countries should be assisted and provided with access to a transparent negotiation process.
- » All concerns and options should be considered openly and sincerely to ensure a common understanding.

An underwater photograph showing a dense collection of plastic waste floating in clear blue water. The debris includes a large, broken clear plastic bottle, a yellow plastic cup, a white plastic ring, a red plastic ring, a white plastic cup, and a yellow plastic bag with some text on it. The water is clear, and the sunlight creates a shimmering effect on the surface.

5

**ELEMENTS OF
A GLOBAL PLASTIC
POLLUTION TREATY
- WHERE WE STAND**

As discussions about a new global treaty to tackle marine plastic pollution have intensified, a number of reports, studies and policy papers about the elements of such a treaty have been published. Among the most recent research reports are the report published by the Nordic Council of Ministers on “Possible elements of a new global agreement to prevent plastic pollution”¹⁴⁰ published in 2020 and a report on “Strengthen the Global Science and Knowledge Base to Reduce Marine Plastic Pollution”¹⁴¹ published in 2021. The ideas and recommendations resemble one another, but also reflect differing views in regard to ambition and feasibility. Civil society organisations are also actively involved in the ongoing discussions and have contributed publications to the debate about possible treaty elements. For example, EIA, CIEL and GAIA published a report on pillars of a global plastics pollution treaty in June 2020.¹⁴² In August 2021, WWF released a report on success criteria for a global plastic pollution treaty.¹⁴³

This chapter features the possible treaty design as well as possible treaty elements – including elements specifically targeting marine plastic pollution and elements common for global treaties that need to be customised to plastic governance. It summarises the debate around the design of a possible treaty and provides some reflections in light of challenges experienced in the Asian region as well as solutions already implemented. As far as possible, this chapter also reflects positions expressed by the various governments of countries in Asia. However, the information gathered via the questionnaire does not allow for a thorough assessment of the Asian perspectives on the different treaty elements: Various government officials were cautious to share their negotiation positions and did not answer the related questions. The information provided by government officials on possible treaty elements is only selective and therefore not comparable.

The assessment in this section is based on the information by government officials provided either officially as response to the questionnaire or as unofficial background information. It also draws from desk-based research. To address possible gaps and weaknesses in existing proposals, the summary report of the workshop conducted by WWF in May 2020 on “Addressing Plastic Pollution in Asia”¹⁴⁴ as well as the *Regional Action Plan for Combating Marine Debris in the ASEAN Member States* and in the *COBSEA Regional Action Plan on Marine Litter* were consulted.

Table 5: Overview treaty elements

Treaty design and future development	
Specific elements targeted at prevention of marine plastic pollution	Common elements customised to plastic governance
Objectives, goals and targets Comprehensive life-cycle approach Obligations to prevent plastic pollution Extended producer responsibility Microplastics	Institutional structure Support mechanisms Finance Monitoring and reporting Implementation and compliance



5.1 TREATY DESIGN AND FUTURE DEVELOPMENT

The AHEG Chair’s summary presents a new global treaty as one potential option for continued work – with “either legally binding and/or non-binding elements”¹⁴⁵. Such a **“hybrid approach” of binding and non-binding elements** is favoured by the Nordic Council in its 2020 report on possible elements of a new global treaty as it can combine minimum targets with procedural requirements.¹⁴⁶ For example, countries could be required to work towards defined objectives and to submit national action plans, but would retain discretion as to how to achieve these objectives. Such an approach would enable countries to pursue solutions suitable to respond to national challenges and needs and would leave room for flexibility as countries have different resources and capacities.

Given that Asian countries are already in the process of preparing and implementing national and regional solutions (see Section 3.2), timely provision of policy guidance and support mechanisms should be prioritised. To structure future negotiation, the global treaty could “include **tasks and mandates for further work and permanent institutions** such as a Conference of the Parties (COP) which adopts decisions to specify and guide parties’ implementation over time.”¹⁴⁷ Future additional agreements via annexes or protocols could also ensure “gradual strengthening over time”¹⁴⁸.

¹⁴⁰ Raubenheimer and Urho (2020).

¹⁴¹ Busch et al. (2021).

¹⁴² EIA, CIEL and GAIA (2020).

¹⁴³ WWF (2021).

¹⁴⁴ WWF (2020), *Addressing Plastic Pollution in Asia*.

¹⁴⁵ AHEG Chair’s summary, para 22 (g).

¹⁴⁶ Raubenheimer and Urho (2020), p. 35.

¹⁴⁷ Bodle and Sina (2019), p. 5.

¹⁴⁸ See WWF (2021), p. 13.

5.2 ELEMENTS TO TARGET MARINE PLASTIC POLLUTION

5.2.1 OBJECTIVES, GOALS AND TARGETS

In 2017, UNEA 3 stressed the “importance of **long-term elimination of discharge of litter and microplastics to the oceans**”¹⁴⁹. This vision builds on and complements Target 14.1 of the 2030 Agenda on Sustainable Development, which calls for preventing and significantly reducing marine pollution of all kinds, particularly from land-based activities, by 2025.¹⁵⁰ The UNEA vision has been proposed as the global or overall objective of a new global plastic pollution treaty in recent policy papers and research reports.¹⁵¹ It is also reflected in the 2021 Ocean Day Plastic Pollution Declaration¹⁵² as well as the Ministerial Statement¹⁵³ discussed during the Ministerial Conference on Marine Litter and Plastic Pollution in September 2021. Other objectives discussed are a “safe circular economy for plastics”¹⁵⁴ or “sustainable consumption and production”¹⁵⁵. While most Asian countries seem to agree with the focus on marine plastic pollution, it is important to keep interests of land-locked countries like Laos and Bhutan in mind when designing the treaty elements.

The AHEG Chair’s summary lists “[g]lobal and national reduction targets” as possible elements of a global treaty.¹⁵⁶ There are several options for such targets: they could be formulated as quantitative or qualitative, and collective or individual targets.¹⁵⁷ If they are not defined at the international level in the treaty text itself or in later annexes, protocols or decision, countries could be required to determine national reduction targets via national action plans.¹⁵⁸

The information received from representatives of governments in Asia in the responses to the questionnaire and the workshop indicate support for a general commitment to reduce marine plastic pollution and for common time frames. In their AHEG submissions, both Timor Leste and the Philippines supported time-bound and measurable reduction targets and expressed the need for harmonised standards.¹⁵⁹ Similarly, the government representative of Thailand mentioned concrete and measurable reduction targets and time-frames as a possible added value of a global plastic pollution treaty. However, countries are hesitant regarding binding country-specific targets determined under international law at this stage and seem to prefer nationally determined targets.

Some Asian countries have already set national measurable, time-bound targets in their strategies and action plans, not only to reduce marine litter, but also to increase the recycling rate or to phase out of single-use plastics: Indonesia aims to reduce marine litter by 70% in 2025¹⁶⁰ and Viet Nam by 75% in 2030¹⁶¹. Singapore wants to achieve a domestic recycling rate of 30% by 2030,¹⁶² and Japan wants to reuse or recycle 60% of containers and packaging by 2030 and to reduce single-use plastics by 25% by 2030.¹⁶³ Brunei has also set a target for recycling and aims to achieve a rate of 30% by 2035.¹⁶⁴ In addition, it has a target for waste management as it wants to reduce municipal waste in landfills to 1 kg/person/day by 2035.¹⁶⁵ However, many countries in the Asian region still lack such targets. To make national targets comparable, a global treaty could define the kind of targets that parties are to determine nationally and provide the methodology for measuring progress towards these targets.

¹⁴⁹ UNEP/EA.3/Res.7, para 1.

¹⁵⁰ Raubenheimer and Urho (2020), p. 21.

¹⁵¹ EIA, CIEL and GAIA (2020), p. 5; Raubenheimer and Urho (2020), p. 21.

¹⁵² See <http://plasticdeclaration.aosis.org/>.

¹⁵³ Available at <https://ministerialconferenceonmarinelitter.com>.

¹⁵⁴ EIA, CIEL and GAIA (2020), p. 5.

¹⁵⁵ Raubenheimer and Urho (2020), p. 31, favours this option as most appropriate long-term option.

¹⁵⁶ AHEG Chair’s summary, para 22 (g).

¹⁵⁷ For more information and examples, see Bodle and Sina (2019), p. 6.

¹⁵⁸ EIA, CIEL and GAIA (2020), p. 5.

¹⁵⁹ The AHEG submissions are available at <https://www.unep.org/environmentassembly/expert-group-on-marine-litter>.

¹⁶⁰ Indonesia Plan of Action on Marine Plastic Debris 2017-2025.

¹⁶¹ Vietnam’s National Action Plan for Management of Marine Plastic Litter by 2030.

¹⁶² Sustainable Singapore Blueprint 2015; Singapore’s Zero Waste Masterplan.

¹⁶³ Japan Resource Circulation Strategy for Plastics.

¹⁶⁴ Akenji and Bengtsson (2019), p. 43.

¹⁶⁵ See Brunei’s NDC of 2020, p. 11, [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Brunei Darussalam First/Brunei Darussalam’s NDC 2020.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Brunei%20Darussalam%20First/Brunei%20Darussalam%20NDC%202020.pdf).

5.2.2 COMPREHENSIVE LIFE-CYCLE APPROACH

Stocktaking efforts in and outside UNEA show that there are important gaps in the existing governance addressing plastic pollution.¹⁶⁶ In particular, pollution from land-based sources is hardly addressed, and existing rules mainly address waste but not the whole value chain. Thus, proposals for a global treaty underline the necessity that such a treaty is comprehensive and adopts a lifecycle approach.¹⁶⁷ In the AHEG 4th Meeting, “many representatives suggested that a new global agreement [...] should aim to close the gaps in existing instruments, with a particular focus on the upstream portion of the plastics life cycle [...]”.¹⁶⁸ This aspiration is reflected in the Ministerial Statement discussed at the Ministerial Conference on Marine Litter and Plastic Pollution in September 2021.¹⁶⁹ According to the report commissioned by the Nordic Council, “[g]lobal discussions have progressed from a need to reduce marine litter (downstream), to promoting sustainable waste management in an attempt to achieve such reductions (midstream), to targeting sources (upstream activities) in order to support sustainable waste management and thereby prevent marine litter.”¹⁷⁰ Thus, a comprehensive approach has to focus on the prevention of plastic wastes.¹⁷¹

The importance of such a comprehensive life-cycle approach was emphasised by the government officials from Laos, Sri Lanka and Thailand in their responses to the questionnaire and supported by Japan, the Philippines, Singapore and Viet Nam in their AHEG submissions.¹⁷² It is also reflected in the *Regional Action Plan for Combating Marine Debris in the ASEAN Member States* which defines actions for all elements of the waste value chain, and in the *COBSEA Regional Action Plan on Marine Litter* which promotes a “lifecycle approach to prevent and reduce leakage at source”¹⁷³. Preparing a new global treaty that takes a comprehensive lifecycle approach will require coordination with other international and regional instruments on related issues.¹⁷⁴

5.2.3 PREVENTION OF PLASTIC POLLUTION

There has been much discussion about applying the approach of the 2015 Paris Agreement to plastics in the ocean.¹⁷⁵ It takes a rather procedural approach with collective global goals, a requirement for countries to prepare and implement national action plans towards these goals – the nationally determined contributions –, and a strong transparency framework.¹⁷⁶ The AHEG Chair’s summary lists the “[f]acilitation of **national and regional action plans**”¹⁷⁷ as one possible element of a global treaty and identifies “basic policy frameworks, related indicators to review the progress, promote transparency and reporting”¹⁷⁸ as possible content of such plans. All recent publications on the topic consider national action plans as one key component of a global plastic pollution treaty.¹⁷⁹ The Ministerial Statement discussed at the Ministerial Conference on Marine Litter and Plastic Pollution in September 2021 mentions national action plans as an example for urgent actions needed.¹⁸⁰ Integrating a requirement to adopt national action plans in a global plastic pollution treaty would need to take into account that Asian countries are not starting from scratch (see Section 3.2.1). In light of limited capacities and resources, especially in developing countries, a global plastic pollution treaty would need to respect such existing efforts. It would also need to give countries the flexibility necessary to design national action plans in light of national circumstances.

Suggestions for treaty provisions to prevent plastic pollution go beyond national action plans. The AHEG Chair’s summary lists “[d]esign standards” and “[p]hasing out avoidable plastic” as two possible elements of a global plastic pollution treaty.¹⁸¹ Determining **design standards for plastic products** on an international level would contribute to achieving a circular economy¹⁸² and would mitigate the risk of non-compliance of national standards with the TBT Agreement¹⁸³. **Phasing out of certain plastic** such as single-use plastics significantly reduces the quantity of plastic produced and used, but requires the negotiation of control measures at international level.¹⁸⁴ Some authors argued a ban on oil-based plastics, albeit progressively introduced, would be the most effective measure.¹⁸⁵ For both elements, the design standards for plastic products and the phasing out of plastic, a global treaty could only set the framework for future negotiation. Setting standards for the design of plastic products and regulating their import was only mentioned by the government official from Bhutan as a challenge. However, all WTO members phase the challenge of complying with the TBT Agreement. Regarding the phase-out of certain plastics, government officials from many Asian countries shared their first steps for single-use plastics (see Section 3.2.2).

¹⁶⁶ See, e.g., *AHEG Chair’s Summary (2020)*, annotation 4 with reference to *UNEP (2017)*; *Bodle and Sina (2019)*, pp. 2 – 4.

¹⁶⁷ *Bodle and Sina (2019)*, pp. 7 – 9; *Raubenheimer and Urho (2020)*, pp. 11, 29; *EIA, CIEL and GAIA (2020)*, pp. 3, 12.

¹⁶⁸ *AHEG report at its fourth meeting*, annotation 147.

¹⁶⁹ Available at <https://ministerialconferenceonmarinelitter.com>.

¹⁷⁰ *Raubenheimer and Urho (2020)*, pp. 11 – 12.

¹⁷¹ *AHEG Chair’s Summary (2020)*, annotation 17; *AHEG report at its fourth meeting*, annotations 153, 160; *EIA, CIEL and GAIA (2020)*, pp. 6 – 8; *Bodle and Sina (2019)*, pp. 7 – 9.

¹⁷² The AHEG submissions are available at <https://www.unep.org/environmentassembly/expert-group-on-marine-litter>.

¹⁷³ *COBSEA Regional Action Plan on Marine Litter*, para. 8 (ii).

¹⁷⁴ See *EIA, CIEL and GAIA (2020)*, pp. 9 – 10; *Raubenheimer and Urho (2020)*, pp. 109 – 110.

¹⁷⁵ See *Kirk (2020)*, pp. 212 – 216; *Bodle and Sina (2019)*, pp. 5 et seq.

¹⁷⁶ *Bodle and Oberthür (2017)* in: *Klein et al. (eds.)*, p. 103.

¹⁷⁷ *AHEG Chair’s Summary*, para 22 (g).

¹⁷⁸ *AHEG Chair’s Summary*, para 22 (b).

¹⁷⁹ *Raubenheimer and Urho (2020)*, p. 44; *Bodle and Sina (2019)*, p. 7; *EIA, CIEL and GAIA (2020)*, p. 7.

¹⁸⁰ Available at <https://ministerialconferenceonmarinelitter.com>.

¹⁸¹ *AHEG Chair’s Summary*, para 22 (g).

¹⁸² *EIA, CIEL and GAIA (2020)*, p. 8.

¹⁸³ For information about the relevance of the TBT Agreement, see *Raubenheimer and Urho (2020)*, pp. 36 et seq.

¹⁸⁴ *EIA, CIEL and GAIA (2020)*, p. 8.

¹⁸⁵ *Kirk and Popattanachai (2018)*, pp. 229 – 233.

Global supply chains and multi-national corporations limit the influence of individual governments. This is especially true for small countries like Bhutan, Laos or Maldives, which are mainly importing plastic products. An international framework for the phase-out of avoidable plastics, starting with single use plastics, could reduce pressure on individual governments and ensure predictability for the industry. It may also create an incentive for the development of environment-friendly alternatives. For unavoidable plastics, a treaty could facilitate the shift to a circular economy to prevent plastic products ending up as plastic waste in countries with ineffective waste management systems like the developing countries in Asia.

5.2.4 EXTENDED PRODUCER RESPONSIBILITY

Extended producer responsibility (EPR) is a concept that is been increasingly used worldwide, including in countries from the Global South.¹⁸⁶ In the plastic context it is considered in the literature as “one of the most promising policy options to reduce future plastic waste”.¹⁸⁷ Accordingly, EPR has been mentioned in **UNEA Resolution 3/7** on marine litter and microplastics as an innovative approach to ensure the private sector contributes to the reduction of marine litter.¹⁸⁸ Moreover, this concept is included in several proposals for a global plastic pollution treaty, including in a set of upstream measures proposed by “many representatives” at the AHEG 4th Meeting.¹⁸⁹ As its rationale is to **reduce the burden of waste management on municipalities and tax payers**, and thus to create incentives for business to develop more sustainable product design¹⁹⁰, some mention it as an element of financial mechanisms.¹⁹¹ Others consider it as an **element of national action plans**, being a national measure to enhance collection rates and recycling, and generally support circular plastics value chains.¹⁹² The development of EPR schemes is even proposed as a national target, although it is noticed that mandatory EPR schemes may have a deterrent effect.¹⁹³ Another way of including EPR is to focus on the responsibility of the industry, thereby taking into account that a global treaty would address states, not industry directly.¹⁹⁴ Finally it is suggested that a treaty could mandate further work on assisting and guiding states in establishing EPR domestically, and in coordinating the respective approaches.¹⁹⁵ These different approaches to include EPR in a global treaty are not exclusive.

Different countries in Asia have already started to implement voluntary or mandatory EPR schemes, or are preparing such schemes (see Section 3.2.3). However, setting up such schemes depends on a number of factors such as the availability of waste management infrastructure, integration of the informal sector, and monitoring and compliance mechanisms.¹⁹⁶ Some authors have pointed to possible barriers to EPR implementation, especially in developing countries, including difficulties to identify producers, a lack of data on the actual effect of EPR schemes on waste reduction and limited impact on product design.¹⁹⁷

As the EPR design varies from country to country, one single harmonised approach is not likely to be suitable. With the Regional Action Plan for Combating Marine Debris, ASEAN Member States agreed to establish a Regional Platform for EPR Knowledge and Implementation Support.¹⁹⁸ A global treaty could support and upscale such regional efforts. It could also facilitate access to financial and technical assistance to set up EPR schemes, and encourage countries to use such schemes as a tool to implement the polluter pays principle and to achieve, among others, its recycling targets.

5.2.5 MICROPLASTICS

All UNEA resolutions specifically address microplastic – mostly together with marine plastic litter, but partly also as a separate issue. Initially, the focus was on research on sources, fate and impact of microplastics.¹⁹⁹ However, **UNEA Resolution 4/6** invited countries to take action in order to reduce the discharge of microplastics into the marine environment, to foster innovation in product design to reduce secondary microplastics release, to improve waste management, and to prevent losses of primary microplastics.²⁰⁰ This indicates the need to differentiate between primary microplastics manufactured for specific applications and secondary microplastics produced as result of fragmentation from larger items.

¹⁸⁶ WWF (2019), *Legal Framework Study of Extended Producer Responsibility*, p. 27.

¹⁸⁷ Schmalenbach and Pleiel (2019), p. 18.

¹⁸⁸ UNEA Resolution 3/7, para. 6.

¹⁸⁹ See AHEG report at its fourth meeting, annotation 154.

¹⁹⁰ See, e.g., OECD (2016), p. 21.

¹⁹¹ Raubenheimer and Urho (2020), pp. 84, 114. See also generally AHEG report at its fourth meeting, annotation 95.

¹⁹² EIA, CIEL and GAIA (2020), p. 7; Raubenheimer and Urho (2020), pp. 89, 123.

¹⁹³ Raubenheimer and Urho (2020), p. 71.

¹⁹⁴ Bodle and Sina (2019), p. 7.

¹⁹⁵ Bodle and Sina (2019), pp. 7 – 8.

¹⁹⁶ <https://prevent-waste.net/en/epr-toolbox/>.

¹⁹⁷ See for example Kirk and Popattanachai (2018), pp. 227 – 229.

¹⁹⁸ ASEAN Regional Action Plan, Action 13.

¹⁹⁹ E.g. UNEA Resolution 1/6, para. 5.

²⁰⁰ UNEA Resolution 4/6, para. 4.

Recent publications also feature provisions on microplastics as one element of a new global treaty. One suggestion is to “ban or heavily restrict the use of intentionally added microplastics globally”²⁰¹. In its report on possible treaty elements, the Nordic Council suggests as additional actions the application of best practices to avoid accidental losses of **primary microplastics**, labelling and product standards to avoid abrasion of **secondary microplastics** during use, and waste management and product standards for breakdown after disposal.²⁰² Considering remaining knowledge gaps, the treaty should foster research specifically on microplastics.²⁰³ To contribute to the global efforts to research on microplastics, ASEAN Member States included a regional study on microplastics in their *Regional Action Plan for Combating Marine Debris*.²⁰⁴

5.3 CUSTOMISE COMMON ELEMENTS FOR MARINE PLASTICS GOVERNANCE

5.3.1 INSTITUTIONAL STRUCTURE

Modern environmental treaties establish a structure with **permanent treaty bodies** as a standard. These include a Conference of the Parties supported by a Secretariat to ensure countries meet on a regular basis and agree on guidance and details for implementation. Subsidiary bodies may be set up with mandates for specific issues. Such treaty bodies are also envisaged for a global plastic pollution treaty.²⁰⁵

In April 2021, the Nordic Council published a report with ideas to strengthen the global science and knowledge base. It features three options on institutional aspects for a **science-policy-interface**: (1) an intergovernmental panel, (2) a scientific body on the new global treaty, and (3) an integrated scientific mechanism under an intergovernmental organisation.²⁰⁶ All of these options represent models already existing in other areas. The report describes their core features as well as their advantages and disadvantages – without giving a preference. The AHEG Chair’s summary identifies the establishment of an “**international scientific advisory panel**” as one potential option for continued work.²⁰⁷

While most government representatives identified the knowledge building on marine plastic pollution as an added value of a global plastic pollution treaty, they did not share preferences for the institutional set-up of a science-policy interface. In its AHEG submission, the Philippines supported the establishment of an intergovernmental body like the IPCC to provide scientific and technical guidance.²⁰⁸ Regardless of the institutional set-up, a science-policy-interface would need to address the current lack of coordination, both at global and regional level as well as across these levels to avoid duplication of work.²⁰⁹ Regional solutions like the Regional Knowledge Centre for Marine Plastic Debris would need to be embedded in the overall institutional architecture.

The *Regional Knowledge Centre for Marine Plastic Debris* (RKC-MPD) was established by the *Economic Research Institute for ASEAN and East Asia* (ERIA) in October 2019. It serves as an information clearing house on marine plastic debris in ASEAN+3 countries. Activities include collecting and analysing information, sharing good practices and policies, raising awareness, building capacity and sharing monitoring methodologies.²¹⁰

5.3.2 SUPPORT MECHANISMS AND FINANCE

To enable implementation in countries with limited resources and capacities, international environmental treaties establish support mechanisms targeting **capacity building**, the **development and transfer of technology**, as well as **financial and technical assistance**. The responses of government officials across the Asian region to the questionnaire revealed support needs in developing countries (see Section 3.3.3). The need for financial and technical assistance, as well as capacity building, is also underlined by authors of the region.²¹¹ It is reflected in the Ministerial Statement discussed at the Ministerial Conference on Marine Litter and Plastic Pollution in September 2021.²¹²

²⁰¹ EIA, CIEL and GAIA (2020), p. 8.

²⁰² Raubenheimer and Urho (2020), p. 58.

²⁰³ Bodle and Sina (2019), p. 8.

²⁰⁴ ASEAN Regional Action Plan, Action 9.

²⁰⁵ Bodle and Sina (2019), p. 8; Raubenheimer and Urho (2020), p. 46.

²⁰⁶ Busch et al. (2021), p. 57.

²⁰⁷ AHEG Chair’s Summary, Para. 22 (d) (iii).

²⁰⁸ The AHEG submissions are available at <https://www.unep.org/environmentassembly/expert-group-on-marine-litter>.

²⁰⁹ Busch et al. (2021), p. 32.

²¹⁰ For more information visit <https://rkcmpd-eria.org/>.

²¹¹ See e.g. Wu (2020), pp. 6 – 8.

²¹² Available at <https://ministerialconferenceonmarinelitter.com>.

The AHEG Chair's summary features “cooperation to facilitate national action”²¹³ as one option for continued work and identifies the **sharing of best practices** as an additional need. In its report on possible treaty elements, the Nordic Council highlights education and awareness raising as well as funding and capacity building as conditions for the successful implementation of a global plastic pollution treaty.²¹⁴ These needs correlate with the findings from the answers by government officials from Asian countries to the questionnaire (see Section 3.3.2).

In regard to financial assistance, the Nordic Council emphasises that the “costs funded should be limited to **incremental costs** incurred by governments in the implementation of the agreement, i.e. costs above and beyond those of business as usual in projected national plastics waste management activities.”²¹⁵ Targeting financial assistance at incremental costs and also **enabling activities** is also suggested in other publications.²¹⁶ Reasoning behind this is that “plastic waste management must become self-sufficient at the local and national levels, financed predominantly by those economic actors (industries) profiting from plastic use.”²¹⁷ Funding will also be needed to **clean up plastics** that are already in the environment. Considering the costs of such projects, a new global treaty could establish a specific fund, or provide a financial mechanism that ensures stable and long-term funding for clean-ups.²¹⁸

With regard to **sources of financial assistance**, there are existing financial channels. The **Global Environment Facility** (GEF), for instance, addresses marine litter within its programming specifically through circular economy initiatives.²¹⁹ The Nordic Council suggests to entrust the GEF to serve as financial mechanism of the new global treaty via its international waters program to ensure institutional efficiency.²²⁰ However, discussions on modalities of a financial mechanism are not yet pointing in one direction. In addition to funding from multilateral institutions, various countries are already providing **bilateral development assistance**, e.g. Germany with its “Grant Programme against Marine Litter”²²¹. There is general agreement that funding will also have to come from additional sources and will require innovative financial mechanisms.²²²

Over the last years, several projects and initiatives have been kicked off in Asian countries. Foci are the reduction of single-use plastic, the promotion of a circular economy, the implementation of EPR schemes, and the support of cities and coastal centres. To ensure effective and efficient use of resources, coordination will be important. Government officials from Viet Nam and Sri Lanka have shared in their responses to the questionnaire that numerous projects are implemented within their countries leading to overlaps. Viet Nam is planning to set up a database to collect information about all projects.

5.3.3 MONITORING AND REPORTING

To track progress towards the overall objective of the treaty and to evaluate countries' performance against their commitments, monitoring and reporting are essential. A **periodic global review** is discussed to serve these functions.²²³ It could be designed to reveal implementation gaps and to inform the scaling up of action.²²⁴

Tracking **progress towards the overall objective** of the treaty will require environmental monitoring²²⁵ and could draw information from sources both within the agreement and beyond²²⁶. “Much of the monitoring of the marine environment is currently undertaken through ad hoc bodies, agencies, projects and programmes in an inconsistent and fragmented manner, causing significant challenges with reliability and cross-comparability of data.”²²⁷ For example, NUS and COBSEA have published a knowledge assessment for ASEAN+3 in 2020.²²⁸ Building on such existing efforts and streamlining them will be necessary.

Provisions on the **evaluation of countries' performance against their commitments** “will be influenced by whether the agreement includes substantive commitments or if they are limited to the procedural level.”²²⁹ In its 2020 report on possible treaty elements, the Nordic Council showcases examples under other treaties that can serve as a reference point depending on the approach taken by a global plastic pollution treaty.²³⁰ National reporting will focus on environmental data and the reduction of leakage of plastic, as well as progress in the implementation of national action plans – depending on their importance in the new global treaty.

²¹³ AHEG Chair's Summary, para. 22 (c).

²¹⁴ Raubenheimer and Urho (2020), pp. 46, 105 et seq.

²¹⁵ Raubenheimer and Urho (2020), p. 106.

²¹⁶ EIA, CIEL and GAIA (2020), p. 11.

²¹⁷ EIA, CIEL and GAIA (2020), p. 11.

²¹⁸ Simon et al. (2021), pp. 45 et seq.

²¹⁹ GEF Trust Fund (2018), para. 191.

²²⁰ Raubenheimer and Urho (2020), p. 107; the proposal is also supported by Wu (2020), pp. 6 – 8.

²²¹ See <https://www.z-u-g.org/en/responsibilities-and-tasks/grant-programme-against-marine-litter/>.

²²² See Raubenheimer and Urho (2020), p. 107; EIA, CIEL and GAIA (2020), p. 11.

²²³ Raubenheimer and Urho (2020), pp. 45, 102 et seq.; EIA, CIEL and GAIA (2020), p. 4.

²²⁴ Raubenheimer and Urho (2020), p. 45.

²²⁵ EIA, CIEL and GAIA (2020), p. 6.

²²⁶ Raubenheimer and Urho (2020), p. 103.

²²⁷ EIA, CIEL and GAIA (2020), p. 6.

²²⁸ Lyons et al. (2020).

²²⁹ Raubenheimer and Urho (2020), p. 104.

²³⁰ Raubenheimer and Urho (2020), pp. 102 et seq.

As also reflected in the AHEG Chair's summary, **harmonisation and standardisation** will be a necessary first step to facilitate monitoring and reporting.²³¹ Activities agreed at regional level in Asia show the urgency of this step: ASEAN Member States agreed with their *Regional Action Plan for Combating Marine Debris* to develop a guidebook for common methodologies for assessing and monitoring marine litter as one activity.²³² The COBSEA Regional Action Plan on Marine Litter of June 2019 assigns the Secretariat to prepare guidance for participating countries for developing harmonised national monitoring programmes.²³³ It will therefore need to rank high in the work plan under a new global treaty. In 2019, UNEA-4 requested the UNEP Executive Director to recommend “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”²³⁴. Japan already published Guidelines for Harmonizing Ocean Surface Microplastic Monitoring Methods to make comparison of monitoring data possible in 2019.²³⁵ The global treaty could build on these regional and global efforts and set up a process for further work.

5.3.4 IMPLEMENTATION AND COMPLIANCE

Recent treaties and practice have moved away from strict compliance mechanisms and sanction regimes.²³⁶ Along this line, a **compliance mechanism** providing additional support to facilitate implementation and compliance is suggested for the new treaty.²³⁷ WWF, however, suggests a strong compliance system with trade restrictions.²³⁸

In addition, **mechanisms to ensure transparency and accountability** are recommended, especially in case the new treaty strongly builds on national action plans for implementation.²³⁹ The Nordic Council recommends **third-party verification** of national reporting and national action plans at a minimum. “More ambitiously, the national reviews could provide a comprehensive, technical assessment of a state’s implementation of its commitments, including comprehensiveness and effectiveness of measures at the domestic level.”²⁴⁰

²³¹ AHEG Chair's Summary, para. 22 (d) (ii).

²³² ASEAN, *Regional Action Plan for Combating Marine Debris*, Activity no. 7.

²³³ COBSEA, *Regional Action Plan on Marine Litter*, Appendix 2, action 3.2.1.

²³⁴ Resolution 4/6, para. 2 (c).

²³⁵ Michida et al. (2019).

²³⁶ Bodle and Sina (2019), pp. 8 – 9.

²³⁷ EIA, CIEL and GAIA (2020), p. 11.

²³⁸ WWF (2021), p. 15.

²³⁹ Raubenheimer and Urho (2020), p. 102; Bodle and Sina (2019), p. 9.

²⁴⁰ Raubenheimer and Urho (2020), p. 102.

An underwater scene with a deep blue background. In the upper half, there is a large amount of plastic debris, including a clear plastic bottle, a brown paper cup, and various pieces of plastic and paper. In the lower right corner, there is a large, white, spotted jellyfish with blue tentacles. The overall image conveys the impact of plastic pollution on marine life.

6

CONCLUSIONS ON THE ADDED VALUE OF A GLOBAL TREATY

The increase in global plastic production has resulted in a growing amount of plastic waste which is challenging waste management systems, especially in Asia's developing countries. As a result, much of the plastic waste generated ends up in the oceans. Marine plastic pollution has an increasing negative impact on the environment in the Asian region.

Countries in Asia have started to tackle marine plastic pollution through various means, including waste management policies, but also policies targeting other stages of the plastic life-cycle. Examples are national action plans dedicated to marine plastic pollution, measures to phase out single-use plastic, and EPR schemes.

The policies introduced so far are quite diverse as they respond to the national challenges and circumstances, the exchange of best practice examples and lessons learnt is limited. Regional action plans have been adopted to provide guidance and ensure coordination. However, there is no regional forum covering all Asian countries.

Despite the solutions already pursued at national and regional level, countries are still experiencing various challenges. Input provided by representatives of Asian governments as formal response to the questionnaire, as unofficial background information and during a workshop pointed to various challenges that either cannot be solved nationally and regionally or would benefit from international rules or standards.

The challenges reported include, among others, a lack of data along the life-cycle of plastics, gaps in monitoring and knowledge on marine plastic pollution, access to financial resources and technology, limited response options for coastal plastic pollution, ineffective plastic waste management, and engagement of the plastic industry.

While the measures already taken by Asian countries are important first steps to tackle marine plastic pollution, they will not suffice to eliminate the discharge of litter and microplastics to the ocean. Scaling-up of targets, effective implementation of action plans and additional measures to facilitate the shift to a circular economy are among the steps still required at national level – they may benefit from an international framework.

A global plastic pollution treaty could address many of the challenges experienced in the Asian region and could frame the next steps to be taken at national level. While some countries have already publicly announced their support for a new global treaty, other countries are still cautious due to remaining concerns, e.g. in regard to the resources needed for negotiation and implementation.

In their responses to the questionnaire and during the workshop, representatives of Asian government shared their expectations of a global treaty. They, among others, emphasized that a new global treaty would need to respect national circumstances and capacities. It would need to facilitate national action and support countries in their ongoing efforts to find suitable solutions.

Representatives from governments, academia, industry, international organisations and non-governmental organisations have discussed possible elements of a new global treaty to tackle marine plastic pollution in various fora over the last years, most notably the ad hoc open-ended expert group on marine litter and microplastics which was established in 2017.

Most Asian countries are participating in or observing the ongoing discussions. However, there are hardly any clear positions of Asian governments on possible treaty elements. Some expectations and suggestions can be found in the AHEG submissions of Japan, Malaysia, the Philippines, Singapore, Timor-Leste and Viet Nam.

The answers by representatives from Asian countries to the questionnaire indicate, that governments either do not yet have a clear position on possible treaty elements or are cautious to share them ahead of the negotiations. Most government officials shared some general ideas that are in line with ideas that are currently discussed at international level.

Looking at the challenges and needs shared by representatives from Asian governments and the possible treaty elements currently discussed, a global plastic pollution treaty could support national and regional efforts and therefore benefit countries in the Asian region. Also, the international debate could learn from the solutions already found and implemented at national and regional level in Asia.

Depending on the elements and design, a new global treaty could have an added value for countries in the Asian region, especially developing countries. Some examples:



Scaling-up of national targets by all countries, reducing global trade with plastic waste as well as overall leakage of plastic waste in the ocean;



Access to financial resources and technical assistance, e.g. for the development and implementation of national action plans or for the introduction of EPR schemes;



Technology transfer to improve plastic waste management, especially collection, recycling and treatment of plastic waste;



Common methodologies for monitoring and reporting, including on marine plastic pollution and national action;



Improvement of plastic waste management in all countries, limiting marine plastic pollution resulting from neighbouring countries;



Harmonisation of design standards for plastic products, facilitating import bans in light of the TBT Agreement;



Reduction of single-use plastic due to similar rules in all countries and therefore stronger incentives for the industry to develop environment-friendly products; and



Improvement and access to knowledge that is collected and shared via a dedicated science-policy-interface, including information about leakage in the ocean and impacts of plastic on the environment and the society.

An aerial photograph showing a vast, dense field of discarded waste, primarily plastic bags and food packaging, under a bright sky. The waste is piled high and covers the entire ground area. A few small green plants are scattered throughout the trash. A large white number '7' is positioned on the left side of the image.

7

OPTIONS FOR ASIAN COUNTRIES FOR THE ROAD AHEAD

7.1 IDENTIFY CHALLENGES AND NEEDS

Most countries in the Asian region are aware of their national situations and are trying to deal with the problems on the ground. However, not all of them have compiled the challenges and needs that could be better tackled when brought into the international debate. Problems caused by a lack of implementation and enforcement must be differentiated from challenges arising from a lack of international coordination and cooperation.

7.2 PRESENT BEST PRACTICE EXAMPLES AND LESSONS LEARNT

All Asian countries have already taken first steps to tackle marine plastic pollution by adopting different measures. While some of the measures have been introduced quite recently, others have already been applied for some years. Countries should take stock of the solutions found at national levels and also at the regional level. This stocktake would inform them about the measures they lack to effectively tackle marine plastic solution. It could also be used to identify remaining gaps, best practice examples and lessons learnt to inform other countries and the international debate.

7.3 FORMULATE AND PRIORITISE EXPECTATIONS

Countries should formulate concerns, needs and expectations to raise them in the international debate. Regarding the first step of adopting a robust negotiation mandate, they should be in the form of guiding principles. Countries should prioritise in light of the most urgent challenges that need to be addressed.

7.4 BUILD ALLIANCES WITHIN AND BEYOND THE ASIAN REGION

Various Asian countries have provided submissions to AHEG – individually and not collectively. It would be beneficial, if countries with common needs and expectations would speak with one voice. Therefore, discussions about concerns, needs and expectations should also occur at regional and sub-regional level to ensure countries come up with harmonised positions that reflect the unique regional and local concerns. Countries could also build alliances beyond the Asian region.

7.5 ACTIVELY ENGAGE IN THE INTERNATIONAL DEBATE

Instead of observing only, countries should take the opportunity to formulate their needs and make them centre of the international debate – first regarding the adoption of a robust negotiation mandate and later regarding the potential formal negotiation of a new treaty. Given the scale of plastic pollution in Asia and the experience of Asian countries in tackling it, the debate would benefit from the Asian perspectives. It may be useful to have informal dialogues to allow for more open discussions where sensitive concerns can be more easily fleshed out. This is especially important for Asian countries, for which a relationship of trust is important, and is often a pre-condition for open sharing and negotiation. Such engagement should take into consideration existing initiatives and first draft resolutions prepared by countries.

8 REFERENCES

8.1 LITERATURE

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8.4 LIST OF RESPONSES TO THE QUESTIONNAIRE

The following responses to the questionnaire were provided by government officials from the Asian region. While some government officials gave oral feedback during virtual meetings, other government officials chose to provide written feedback to the questionnaire prepared.

Country	Name	Organisation	Function	Date
 Bhutan	Kezang Choden	National Environment Commission Secretariat	Assistant Environment Officer	25.04.2021
 Bhutan	Anonymous	National Environment Commission Secretariat	N/A	26.04.2021
 Bhutan	Anonymous	National Environment Commission	N/A	27.04.2021
 Indonesia	Rofi Alhanif	Coordinating Ministry of Marine and Investment	Assistant Deputy for Waste and Wastewater Management, Deputy for Environment Management and Forestry	16.03.2021
 Laos	Thevalack Phonekeo	Ministry of Natural Resources and Environment	Deputy Director General	02.07.2021
 Malaysia	Anonymous	Ministry of Environment and Water, Environmental Management Division, Circular Economy Unit	N/A	24.05.2021
 Maldives	Inaya Abdulaheem	Ministry of Environment and Energy, Environmental Protection Agency, Waste Management and Pollution Prevention Section	Officer	19.05.2021
 Philippines	Geri-Geronimo Sañez	Department of Environment and Natural Resources, Hazardous Waste Management Section	Chief	24.06.2021
 Singapore	Anonymous	Ministry of Sustainability and the Environment	N/A	01.04.2021
 Sri Lanka	S.M. Werahera	Ministry of Environment, Environmental Pollution Control and Chemical Management division	Director	31.05.2021
 Thailand	Anonymous	Ministry of Natural Resources and the Environment, Pollution Control Department	N/A	06.08.2021
 Viet Nam	Luu Anh Duc	Ministry of Natural Resources and Environment, Viet Nam Administration of Seas and Islands, Department of Science, Technology and International Cooperation	Deputy Director	04.06.2021

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