



Recommendations

ASEAN Conference on Combating Plastic Pollution

Enhanced Synergies and Collaborative
Actions to Combat Plastic Pollution,
Including in the Marine Environment

Prepared by

Ivana Suradja
Aulia Salsabella Suwarno
Reo Kawamura
Michikazu Kojima

List of Contributors

Authors

**Economic Research Institute for ASEAN and East Asia (ERIA)
Regional Knowledge Centre for Marine Plastic Debris (RKC-MPD)**

Ivana Suradja
Aulia Salsabella Suwarno
Reo Kawamura
Michikazu Kojima

Contributors

ERIA RKC-MPD

Ayako Mizuno
Fusanori Iwasaki

Indonesian Coordinating Ministry for Marine Affairs and Investments (CMMAI)

Rofi Alhanif
Rendra Kurnia Hasan
Makna Fathana Sabila

Indonesia National Plastic Action Partnership (NPAP)

Tuti Hadiputranto
Rocky Pairunan
Bunga Karnisa Goib
Nurul Ilmaniar
Lutfi Kamili Juliandri Ibrahim

Indonesian Ministry of Environment and Forestry (KLHK)

Dr Novrizal Tahar
Kurniawan Akbar

Foreword

Economic Research Institute for ASEAN and East Asia (ERIA)

Plastic has seen substantial growth in production worldwide, driven by its versatility and durability. However, rapid expansion of plastic production has outpaced equivalent proper waste management and resource recovery advancements, giving rise to what is dubbed as one of the most pressing challenges of the century: plastic pollution. Various stakeholders are mobilising to reduce plastic pollution and mitigate the adverse environmental, health, and economic effects it poses. Amidst these challenges, it is imperative to leverage the economic opportunities that emerge through the adoption of the circular economy principle in addressing the issue.

In response to this urgent call, the Association of Southeast Asian Nations (ASEAN) Member States have taken decisive actions, exemplified by the adoption of the Bangkok Declaration on Combating Marine Debris in 2019 and the Regional Action Plan for Combating Marine Debris in the ASEAN Member States in 2021. In its third year of implementation, the regional action plan witnessed progressive policy interventions and innovative initiatives promoting sustainable plastic consumption amongst member states.

In parallel, efforts are under way to finalise an international legally binding instrument by the end of 2024. Building on this momentum, the Government of Indonesia, in collaboration with ERIA and Indonesia National Plastic Action Partnership, convened the ASEAN Conference on Combating Plastic Pollution (ACPP) on 17 October 2023. The conference served as a platform for stakeholders to share implementation progress and exchange know-how for enhanced countermeasures.

This report aims to take stock of the challenges and opportunities faced in combating plastic pollution, along with concrete recommendations highlighted during the ACPP. It underscores the importance of adopting a holistic approach – fostering collaboration amongst governments, the private sector, scientists, the finance sector, and civil society groups. It also emphasises the pivotal role of ASEAN as a regional coordinating body in harmonising and bolstering national efforts.

We believe that this report will provide constructive insights to guide future endeavours in addressing plastic pollution. ERIA remains committed and looks forward to supporting ASEAN in advancing regional efforts towards the prevention, reduction, and elimination of plastic pollution.



Tetsuya Watanabe

President of ERIA

Foreword

Indonesia National Plastic Action Partnership

The issue of plastic pollution has become a global concern, with plastics found in our environment, including land, oceans, rivers, and even our food chain. We urgently need to take ambitious and concrete steps towards reducing and addressing plastic pollution, including sustainable practices.

Southeast Asia has been a hotspot for plastic pollution due to its high economic growth, rapid urbanisation, and industrialisation. However, the waste management system in most cities in the region is still underdeveloped. Six out of the 10 Association of Southeast Asian Nations (ASEAN) Member States (AMS) are ranked in the top 10 plastic-polluting countries, representing more than half of the world's ocean plastic. Therefore, addressing plastic pollution in the region is imperative for its people and the planet.

ASEAN has recognised the importance of addressing plastic pollution. It can play a pivotal role in leading and showcasing the efforts of the Global South and emerging countries in combating plastic pollution and marine debris since ASEAN regional cooperation envisions strong ASEAN community integration and sustainable development by implementing the regional action plan for combating marine plastic debris, the circular economy, and the blue economy.

The ASEAN Conference on Combating Plastic Pollution (ACPP) 2023 provided a platform for communities in the region to exchange knowledge, participate in collaborative discussions, and share insights on strategic planning to elevate ASEAN's response to plastic pollution. The conference also explored potential areas and initiatives to strengthen ASEAN's role in addressing plastic pollution and AMS' readiness to comply with the global plastic treaty.

Leading the initiative and as the chair of ASEAN, Indonesia has taken serious and significant steps to reduce plastic waste and promote sustainable practices. The country has implemented policies and regulations to address the issue and has collaborated with various stakeholders to amplify strategic efforts.

As ASEAN – one of the global economic powerhouses – we must move forward and raise our ambitions by enabling regional markets that are socially just amongst and between AMS and other countries to avoid potential plastic pollution through technological innovations, standardisation, and pioneering new and disruptive business models. We also need different financing models to ensure that innovative solutions can scale. The government must provide a concrete measure and policy framework to ensure that these innovative solutions thrive.

We still have many things to do, and we need to remember that cooperation and collaboration amongst policymakers, industries, academia, experts, civil society, and the finance sector in ASEAN can make a greater and more meaningful impact in the future. Indonesia National Plastic Action Partnership is extremely proud to be part of the catalyst for this impactful change.

We hope the ACCPP 2023 recommendations will serve as a valuable resource for tackling Southeast Asian plastic pollution. I would like to express my appreciation to everyone who has contributed to this report, and I look forward to seeing the impact of these efforts in the years to come.

Tuti Hadiputranto

Chairperson of Indonesia National Plastic Action Partnership

Foreword

Coordinating Ministry for Maritime Affairs and Investment

As the world's biggest archipelagic state, Indonesia faces detrimental consequences of plastic pollution that put its bountiful coastal and oceanic biodiversity at risk. The surge of plastic waste, coupled with the looming threat of environmental leakage, not only impacts the aquatic ecosystem but also poses significant risks to human health. Recognising this critical issue, the Government of Indonesia enacted Presidential Regulation No. 83/2018 on Marine Debris Management, demonstrating a commitment to reducing 70% of marine plastic waste by 2025. This initiative positions Indonesia at the forefront of the Association of Southeast Asian Nations (ASEAN) Member States, leading strategic actions towards a cleaner ocean and a more sustainable plastic economy.

Between 2018 and 2022, substantial progress was made in waste reduction, resulting in a 35% decline in plastic waste leakage into Indonesian seas. This success is the result of penta-helix collaboration, where the government, private sector, academia, communities, and media work hand in hand in pursuit of a common goal.

The adoption of the United Nations Environment Assembly (UNEA) Resolution 5/14 in 2022 marked a new phase of global collaborative efforts in combating plastic pollution. It calls upon countries around the world to negotiate and build consensus on the best measures to address this growing challenge, with an emphasis on science-based policy. Now is a strategic time, therefore, for ASEAN as a region to strengthen cooperation and unite forces, both in the negotiating process for the global plastic treaty and in preparation for subsequent implementation stages.

In this regard, the Government of Indonesia pledges to enhance its efforts and take the lead in regional initiatives to address plastic pollution in a concerted manner. By hosting the ASEAN Conference on Combating Plastic Pollution (ACPP), we aimed to facilitate the exchange of lessons learnt amongst Member States and foster collective assessment of the challenges and opportunities that come with tackling plastic pollution.

Finally, we extend our deep appreciation to collaborating ministries and organisations – the Ministry of Forestry and Environment, Indonesia National Plastic Action Partnership, and the Economic Research Institute for ASEAN and East Asia (ERIA) – for their invaluable efforts in capturing the conference's recommendations in this report. May the insights encapsulated in this report guide ASEAN's future endeavours towards more sustainable plastic management.



Nani Hendiarti

Deputy for Coordination of Environmental and Forestry Management
Coordinating Ministry for Maritime Affairs and Investment

Foreword

Ministry of Environment and Forestry

Combating plastic pollution is not an easy task. It is an endeavour that requires interventions across the whole plastic value chain from production to waste management. This cannot be done by one person, organisation, or country alone. Mobilising efforts across various stakeholder groups may be challenging, but considering the current state of plastic pollution, it is becoming more urgent than ever.

This report presents recommendations formulated from the ASEAN Conference on Combating Plastic Pollution 2023, which brought together stakeholders from the public and private sectors as well as academia, civil society organisations, and developmental organisations under the common goal of addressing plastic pollution in the Southeast Asian region. Through the exchange of ideas that took place during this event, we shared the lessons we learnt, gained new perspectives, and coordinated future efforts to protect our environment as a region.

This report was written with the objective of summarising the discourses that took place in the conference into actionable recommendations that acknowledge past achievements and existing challenges in the region. We hope that this report will help guide future efforts within as well as across stakeholder groups as we move forward together towards a more sustainable future and relationship with plastics.

The organisation of the conference and the formulation of this report would not have been possible without the notable contributions of several relevant parties. Thus, we would also like to take this opportunity to express our appreciation to the Indonesian Coordinating Ministry for Maritime and Investment Affairs, the Indonesia National Plastic Action Partnership (NPAP), and the Economic Research Institute for ASEAN and East Asia (ERIA).

Finally, we would like to thank you for taking the time to learn more about this complex issue from this report and hope that it inspires you or your organisation to do what you can for our planet and future. No matter how small the efforts to combat plastic pollution by all stakeholder groups, the potential for building a systematic and integrative understanding of the positive impacts of managing plastic pollution will be greater.

Rosa Vivien Ratnawati

Director-General of Solid Waste, Hazardous Waste, and Hazardous Substances Management
Ministry of Environment and Forestry

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Executive Summary

Background

In recent years, plastic pollution has emerged as a growing threat around the globe. The gravity of this issue called for negotiations on an international legally binding instrument (ILBI), which is expected to provide a comprehensive set of guidelines and strengthen international cooperation in addressing the issue. As an area that is heavily influenced by and reliant on its marine resources, the Association of Southeast Asian Nations (ASEAN) region views plastic pollution as a pressing issue to be addressed. However, despite their great ambition and commitment to addressing plastic pollution in the region, ASEAN Member States (AMS) often face challenges including limited capacity, infrastructure, and resources.

To avoid further negative impacts from plastic pollution, it is imperative for AMS, with the support of ASEAN, to overcome these challenges – including by increasing their readiness to implement the ILBI, which is expected to be completed by the end of 2024. As a response to this need, the ASEAN Conference on Combating Plastic Pollution (ACCPP) was held in Jakarta, Indonesia on 17 October 2023 to provide stakeholders across ASEAN with a platform for knowledge sharing, discussion, and strategic planning. Through the ACCPP 2023, stakeholders had the opportunity to share knowledge and experiences, explore potential collaboration, and discuss enabling conditions to address plastic pollution effectively.

This report serves as a follow-up to the ACCPP 2023. It condenses the discussions and resulting recommendations from the conference into concrete and actionable recommendations in four areas: (i) technical strategies, (ii) stakeholder engagement, (iii) finance and investments, and (iv) ASEAN participation in the Intergovernmental Negotiating Committee (INC) on Plastic Pollution. The formulation of these recommendations utilised a holistic framework that considers the interdisciplinary nature of the plastic pollution issue, the life cycle approach to plastics, and multi-stakeholder engagement.

RECOMMENDATION 1

Technical Strategies Across the Plastic Life Cycle

Tackling plastic pollution from an economic perspective requires a shift in perspective from plastic as waste to plastic as a valuable resource, which can be achieved through circular economy principles, including reuse and recycling. Achieving this requires the implementation of technical strategies to increase the economic value of plastic throughout its life cycle.

RECOMMENDATION 2

Stakeholder Engagement for Plastics Circularity

The increased urgency of the plastic pollution issue, especially in recent years, calls for the engagement and mobilisation of all stakeholders. To achieve this, communications strategies must be employed to raise awareness, harmonise strategies, and enhance collaboration and coordination amongst stakeholders to combat plastic pollution.

RECOMMENDATION 3

Finance and Investments for a Circular Economy

Establishing a circular plastics economy in AMS, which are mostly developing and emerging economies, requires financial support and investments. To increase the mobilisation of financial resources from both the public and private sectors, there is a crucial need for regulatory and economic interventions that create an enabling ecosystem for circular economy solutions.

RECOMMENDATION 4

ASEAN's Role in the INC

Although the 10 AMS are unique in their own ways, their shared geographic and socio-economic background give rise to some overlap in views and priorities. AMS may use this as an opportunity to negotiate as a group for the global plastics treaty.

Conclusion

At the current rate of plastic pollution, it is more critical than ever to act. Despite the gravity of the issue, there is still hope as efforts are under way. The recommendations in this report could be a starting point for stakeholders to take part in efforts to combat plastic pollution in the ASEAN region.

Introduction

Background

In recent years, plastic pollution has emerged as a growing threat around the globe. This issue not only affects marine life, but also has significant socio-economic implications, especially on communities that are heavily reliant on these marine resources (MacIlgorm, Raubenheimer, and MacIlgorm, 2020). A widespread understanding of the gravity of this issue led to the unanimous adoption of Resolution 5/14 at the United Nations Environment Assembly (UNEA) in 2022, which called for negotiations for an international legally binding instrument (ILBI) on plastic pollution, including in the marine environment (UNEA, 2022). The ILBI, which is being discussed and prepared in the Intergovernmental Negotiating Committee (INC) sessions, is expected to provide a comprehensive set of guidelines and strengthen international cooperation in addressing the issue.

As an area with vast marine territory, the Association of Southeast Asian Nations (ASEAN) region is heavily influenced by and reliant on its marine resources (Khalid, Ang, and Joni, 2009). Thus, plastic pollution is a pressing issue to be addressed by the region. Multiple efforts to combat plastic pollution in the region have been made in recent years. At the regional level, ASEAN Member States (AMS) adopted the Bangkok Declaration on Combating Marine Debris in the ASEAN Region and the related framework and regional action plan (RAP) (ASEAN, 2019a; 2019b; 2021). In addition to the RAP, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam have adopted national action plans (NAPs) outlining national-level strategies and commitments.

Despite their great ambition and commitment to addressing plastic pollution in the region, AMS often face challenges including limited capacity, infrastructure, and resources. To avoid further negative impacts from plastic pollution, it is imperative for AMS, with the support of ASEAN, to overcome these challenges – including by increasing their readiness to implement the ILBI, which is expected to be completed by the end of 2024. As a response to this need, the ASEAN Conference on Combating Plastic Pollution (ACPP) was held in Jakarta, Indonesia on 17 October 2023. The conference was held back to back with the ASEAN Coordination Meeting on the INC-3 and is recognised by ASEAN Leaders as one of the deliverables of Indonesia's Chairmanship of ASEAN in 2023 (ASEAN, 2023):

'We affirmed ASEAN's commitment to implement the ASEAN Regional Action Plan on Combating Marine Plastic Debris and commended the progress of implementation of marine debris related projects and initiatives, including ... the upcoming ASEAN Conference on Combating Plastic Pollution which will be hosted by Indonesia.'

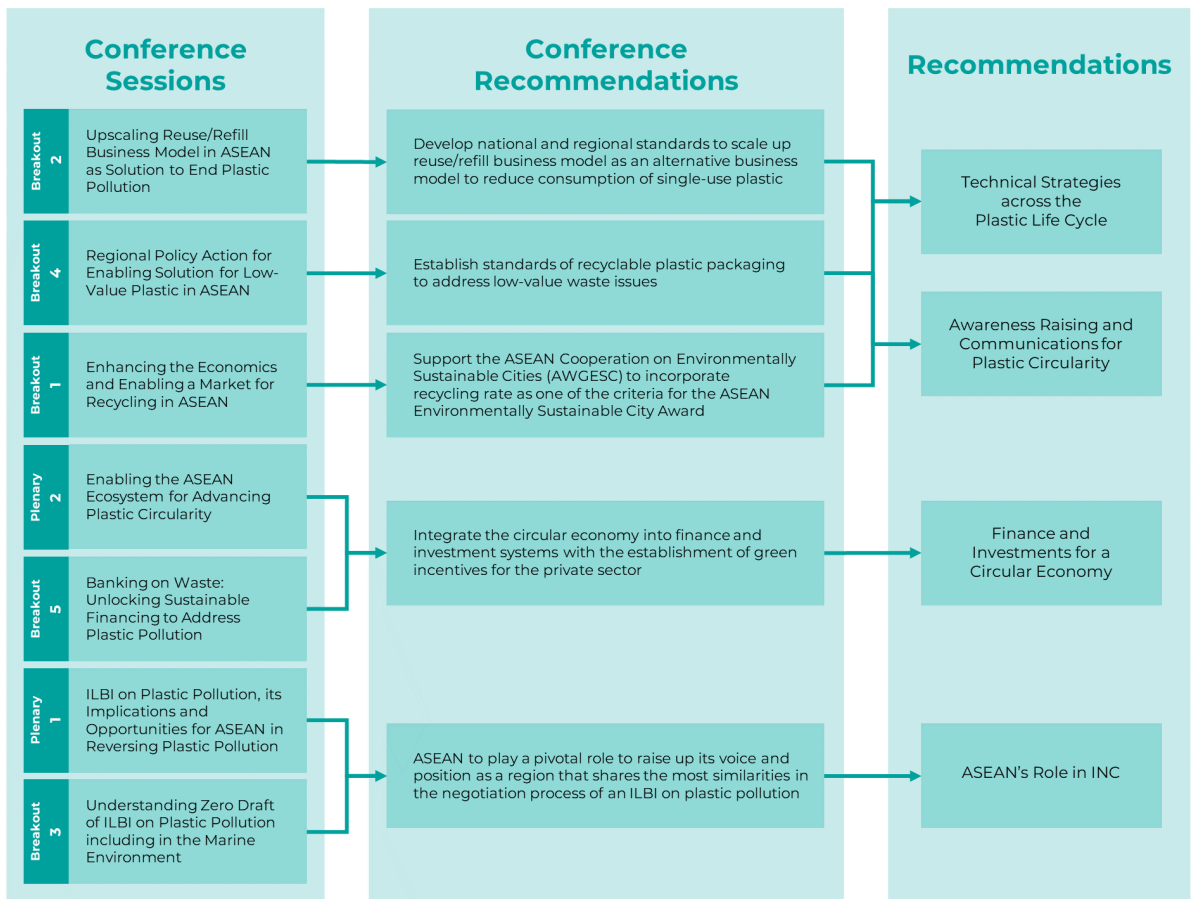
The ACCPP 2023 was organised to provide stakeholders across ASEAN with a platform for knowledge sharing, discussion, and strategic planning. Through the ACCPP 2023, stakeholders had the opportunity to share knowledge and experiences, explore potential collaboration, and discuss enabling conditions to address plastic pollution effectively. This report serves as a follow-up to ACCPP 2023, and adapts the five high-level recommendations from the conference into four concrete and actionable recommendations.

Structure and Framework

The subsequent sections of this report cover four recommendations adapted from the ACCPP 2023. These recommendations stem from the five initial recommendations that emerged at the end of the ACCPP 2023 as well as the discussions throughout the sessions. Understanding the importance of science-based policy and decision-making, each section begins with an overview of the current conditions or what has been achieved in relation to the recommendation in the Southeast Asian region, with supporting evidence in the form of data or case studies. This is followed by challenges and their recommended solutions, which were taken from the discussions in the conference sessions. The formulation of the recommendations in this report utilised a holistic framework that considers the interdisciplinary nature of the plastic pollution issue, the life cycle approach to plastics, and multi-stakeholder engagement.

Interdisciplinarity. Figure 1 shows how the discussions of each conference session and the five initial recommendations are organised into the four recommendations spanning four disciplines in this report. Despite the different disciplines that they cover, all four recommendations are taken from an economic perspective, allowing for the integration of the discussion of plastic pollution in this report within the greater context of the circular economy.

Figure 1: Diagram of the Development of the Recommendations for Combating Plastic Pollution



ASEAN = Association of Southeast Asian Nations, ILBI = international legally binding instrument, INC = Intergovernmental Negotiating Committee.

Note: The four recommendations in this report (right) are developed from the conference sessions (left) and five conference recommendations (middle).

Source: Authors.

Life cycle approach. One of the key messages of the ACCPP 2023, which has also been brought up in global conversations on plastic pollution, was the importance of taking a life cycle approach in combating plastic pollution. This approach distinguishes the different stages that plastics go through (UNEP, 2022b):

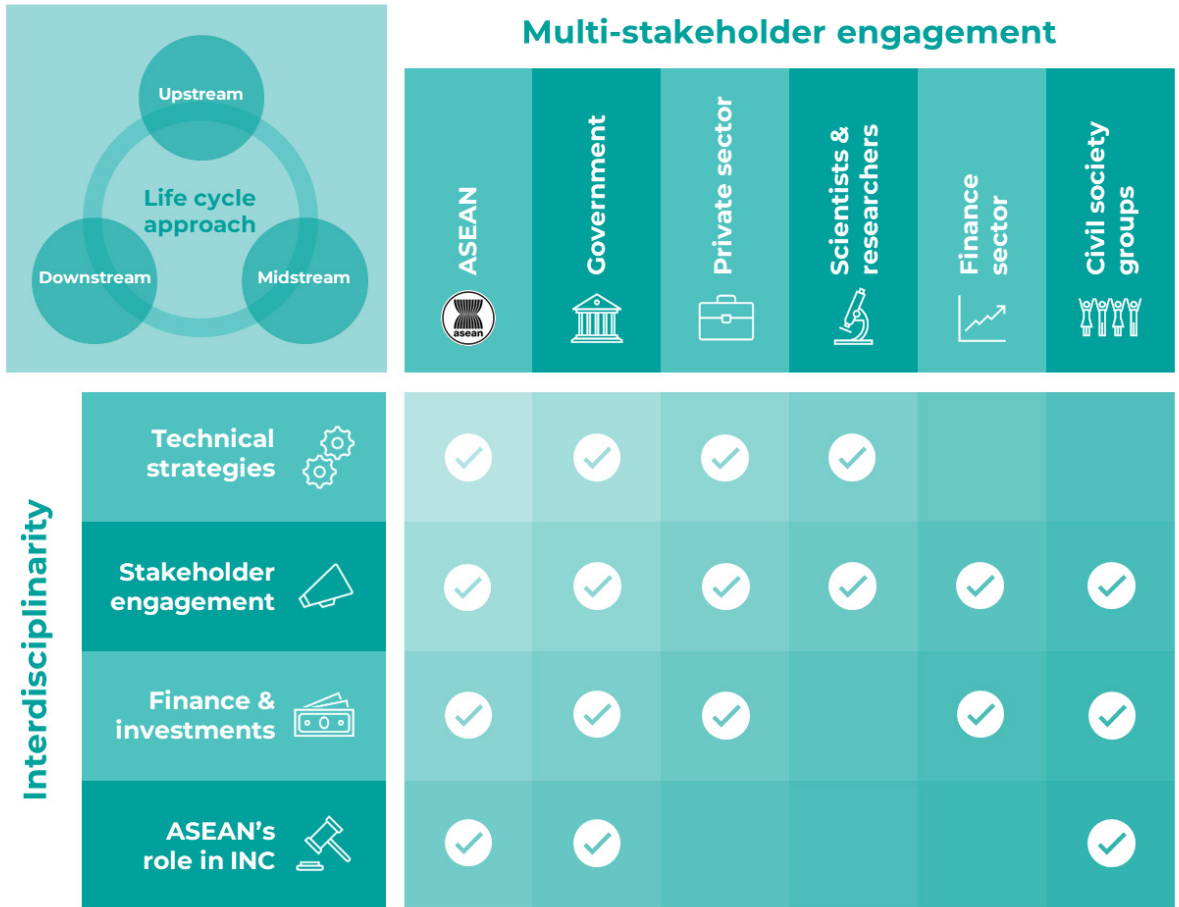
- **Upstream:** production and consumption of virgin plastic polymers
- **Midstream:** product design and use
- **Downstream:** plastic waste management and treatment

It also highlights the importance of tackling plastic pollution at all stages of the life cycle, instead of only downstream. In this report, all three stages are considered and addressed in the recommendations. However, in recommendation 1, which deals with technical strategies in handling plastics, the section is further divided based on life cycle stages as each stage requires specific technical strategies.

Multi-stakeholder engagement. Another key message often mentioned in discussions on combating plastic pollution is the importance of engaging stakeholders across all sectors. This is incorporated in the recommendations in this report, by assigning recommended actions to specific stakeholder groups – governments; the private sector; scientists and researchers; the finance sector; and civil society groups, which include the informal sector, indigenous peoples, and youth (UNEP, n.d.). For the purpose of this report, ‘governments’ refer to national governments of AMS. Additionally, considering the regionality of this report and the role that ASEAN plays in the region, ASEAN is added as a sixth stakeholder group.

Consolidating the four disciplines and six stakeholder groups results in 24 possible combinations. However, it is important to note that the recommendations in this report only cover 18 out of the 24 combinations. This is because the recommendations in the report are based on the discussions from the conference, and not all 24 combinations emerged during the discussions at the conference. Figure 2 illustrates the framework used in formulating the recommendations as well as the combinations of disciplines and stakeholder groups.

Figure 2: Holistic Framework for Formulating Recommendations to Combat Plastic Pollution



ASEAN = Association of Southeast Asian Nations, INC = Intergovernmental Negotiating Committee.

Note: The framework used to formulate recommendations in this report looks at the intersections between four different disciplines (rows) and six stakeholder groups (columns), while considering all stages of the plastic life cycle. Combinations of approaches and stakeholders that are covered in this report are given a check in their corresponding cell in the figure.

Source: Authors.

RECOMMENDATION 1

Technical Strategies Across the Plastic Life Cycle

Key Message

Tackling plastic pollution from an economic viewpoint requires a shift in perspective from plastic as waste to plastic as a valuable resource, which can be achieved through circular economy principles, including reuse and recycling. Achieving this requires the implementation of technical strategies to increase the economic value of plastic throughout its life cycle.

Background

The issue of plastic pollution mainly stems from the linear production and consumption of plastics, whereby plastics are extracted, manufactured, used, and disposed of, resulting in the accumulation of plastic waste (Barra et al., 2018). Solving this issue requires moving towards a circular model, or circular economy, where materials are continuously circulated (Ellen MacArthur Foundation, n.d.-b). Under this principle, plastics are not seen as waste, but as a valuable resource that can be used multiple times through strategies such as reuse and recycling. Table 1 provides a comparison of these two strategies. Furthermore, recycling can be categorised into two types: open loop and closed loop recycling (Fedkin, n.d.), and Table 2 elaborates on the differences between them.

Table 1: Comparison of the Reuse and Recycling of Plastics

| Parameter | Reuse | Recycle |
|--|---|--|
| Approach to plastics | Prevents plastics from becoming waste in the first place by reusing them. | Used plastics can become raw materials for new plastics products. |
| Processes prior to repurposing | Plastic items generally do not need to go through any processes, though in some cases, they are cleaned or sterilised before repurposing. | Plastic items need to be broken down through mechanical and/or chemical processes prior to being repurposed. |
| Location of intervention on the plastic life cycle | Mostly at the midstream because reuse is typically concerned with reusing the item without making significant modifications to it. | Mostly downstream because recycling is mainly associated with discarded plastics. |

Source: Authors.

Table 2: Comparison of Open Loop and Closed Loop Plastic Recycling

| Parameter | Open Loop Recycling | Closed Loop Recycling |
|----------------------|---|--|
| Material degradation | Plastic materials eventually lose some of their quality or properties. | Plastic materials maintain their quality or property. |
| Product generated | Plastics recycled into other objects (e.g. from bottle to shirt) usually of lower quality or grade. | Plastics recycled into objects for the same use (e.g. from bottle to bottle) of the same quality or grade. |
| Waste production | Plastic materials that can no longer be recycled into new products are disposed of. | Ideally, plastic materials can be used indefinitely, producing zero waste. |
| Virgin materials use | Requires some level of virgin materials as plastic materials cannot be used indefinitely. | Minimises the use of virgin materials as existing materials are continuously recycled. |

Source: Summarised from Fedkin (n.d.).

In its simplest form, reuse can be defined as the process of repeatedly using an item, such as product packaging, for the same purpose without making major modifications (Ellen MacArthur Foundation, n.d.-a). More recently, a systems approach to reuse has started to gain popularity. In a reuse system, the product packaging remains under the ownership of a reuse system provider and is loaned, not given, to consumers (Global Plastics Policy Centre, 2023). This new approach places more responsibility on producers instead of relying on consumers to ensure that the product packaging is reused. However, for reuse systems to work effectively, standards need to be in place to ascertain compliance with basic health and safety regulations as well as to upscale implementation (Mafira, 2023).

Reuse and refill initiatives across Southeast Asia have been widespread, with some promising outcomes. For example, multiple initiatives targeting the drinking water industry have emerged in the form of bottle refill stations and refillable water jugs. A 2020 survey showed that 29.1% of Indonesian households obtain their drinking water from refill depots, most of which are home industries, though mostly for practical rather than environmental motivations (Central Bureau of Statistics, 2020; Rahayu and Herniwati, 2022). However, this practice also has its drawbacks, such as those relating to hygiene and sanitation (Rahayu and Herniwati, 2022), highlighting the importance of the establishment and enforcement of standards. On a larger scale, one of the key players in Indonesia's drinking water sector, Danone, has been able to avoid the use of 4,152 tons of virgin plastics just between 2018 and 2021 through its reusable jugs business model (Wahyuni, 2023), demonstrating the potential achievements of reuse.

With regard to plastic recycling, efforts across Southeast Asia are also under way with varying levels of success, though limited waste management data availability and collection capacity make it difficult to know for sure the state of recycling in some countries (Asokan, Abeynayaka, and Hotta, 2023). Gaps in recycling infrastructure and waste management systems are often attributed as the inhibiting factors for recycling in AMS (Ng et al., 2023). This, coupled with the shipment of wastes from developed countries to a few AMS since China's ban on the import

of several types of solid waste, which was announced in 2017 and implemented in 2018, has resulted in a huge outcry across the region and shed light on the regional implications of a much more complicated global issue (Mosbergen, 2019; Wen et al., 2021).

In discussing recycling in Southeast Asia, the role that the informal sector plays in the process must not be overlooked. To illustrate, in Da Nang, Viet Nam, informal waste workers may recover recycled materials equivalent to 6.0%–7.5% of the total volume of waste that is brought to landfills, including, on average, 12 kilograms of plastics per day (UNDP, 2020). In Indonesia, 3.5 million informal waste workers and 115,000 small and medium-sized junk shops supply 98% of materials for recycling (Azhar, 2023). However, despite their valuable contributions, informal waste workers are often the most vulnerable as they are exposed to hazardous working conditions, suffer social stigma, and are most affected by volatile waste markets (Hicks, 2024; UNDP, 2022).

Progress in recycling in Southeast Asia is not without the contribution of private sector actors. For example, as part of their efforts to achieve a 'low-carbon, responsible, closed loop circular economy' (Nugroho, 2023), in 2023, Coca-Cola Europacific Partners Indonesia and Dynapack Asia launched bottles made of 100% recycled polyethylene terephthalate (PET), excluding the caps and labels, for some of their Coca-Cola Trademark products using recycled PET collected and recycled through their own recycling facility and non-profit organisation (Coca-Cola Europacific Partners, 2023a; 2023b). Unilever has also contributed to recycling efforts by supporting waste collection through waste banks and working together with local partners to recycle plastic waste, including sachets, into new packaging for their products or into other products (Tamimi, 2023).

In discussing reuse and recycling, it is also important to note that the likelihood of plastic items being reused or recycled also depends on their value. Factors affecting the value of plastics include oil prices, recyclability, demand and supply, transportation costs, and the technical difficulty of recycling (Kojima, 2023). For example, expanded polystyrene (EPS), also known as styrofoam, is considered of low value because of its bulkiness, making it challenging to transport (Kojima, 2023). Even for recyclable plastics, mixing them with other types of waste that are especially difficult to separate, such as food waste, may lower their value (Jangprajak, 2023).

While it is difficult to predict or control events such as global pandemics and geopolitical conflicts, which may contribute to the volatility of the recycled plastics market (Hicks, 2024), technical measures relating to the design and management of plastics can be taken to help increase their value (Kojima, 2023). To demonstrate the relationship between plastic value and recyclability, Table 3 presents statistics on plastic recycling in several AMS, comparing the rates for plastics in general and those for PET bottles, which are considered a high-value plastic.

Table 3: Plastic Recycling Rates in Several ASEAN Member States

| Member State | Plastic Recycling Rate (%) | PET Bottle Recycling Rate (%) |
|--------------|----------------------------|-------------------------------|
| Indonesia | 10 | 74 |
| Malaysia | 24* | 55 |
| Philippines | 28* | 35–65 |
| Singapore | 6 | N/A |
| Thailand | 18* | 31–62 |
| Viet Nam | 33* | 45–65 |

ASEAN = Association of Southeast Asian Nations, N/A = not available, PET = polyethylene terephthalate.

*Key plastic resin.

Sources: Azhar (2023); National Environment Agency (n.d.); World Bank (2021a, 2021b, 2021c, 2021d).

Upstream Recommendations

Promote the Use of Recycled Plastic Pellets

A1: *Higher preference for virgin resins over recycled pellets due to lower production costs.* The production of recycled pellets requires a long and complicated process, making them generally higher priced than virgin resins (Pangestu, 2023; Sasongko, 2023). Thus, to lower production costs, producers may prefer virgin over recycled resins. **To address this challenge:**

- **Governments** should create regulatory and economic interventions to boost the use of recycled plastics, such as minimum recycled content and subsidies.
- The **private sector**, including plastic producers and importers, should keep up to date and comply with the latest regulations on minimum recycled content as well as increase the usage of recycled pellets.

Midstream Recommendations

Establish Product and Packaging Standards for Plastics Reuse and Recycling

B1: *Lack of product and packaging design standards.* Plastics circularity starts upstream from the design of the plastic products and packaging (Chan, 2023). Producers could benefit from guidelines on how products and their packaging should be designed to support reuse and recycling, thus increasing their value while considering the health and safety of consumers (Kojima, 2023; Mafira, 2023). However, such design standards are still lacking.

B2: *Limited scale of implementation of reuse and recycling to certain brands, products, and jurisdictions.* The implementation of reuse and recycling is often limited to certain brands, products, and jurisdictions because different product designs and operational models limit scalability and interoperability (Mafira, 2023). The use of standards would allow for

interoperability amongst stakeholders across the value chain (Mafira, 2023). In developing standards, it is also necessary to align them with international standards to scale up further operations as well as integrate in and maintain competitiveness in international markets (Jalil, 2023; Pangestu, 2023).

To address these challenges:

- **ASEAN and governments** should work together with **scientists and researchers** to study and set standards supported by scientific data to ensure consumer safety, especially in reuse systems (e.g. the type of products where packaging is safe to be reused, and materials to use for reusable containers).
- **ASEAN and governments** should also collaborate with **the private sector** to establish product design standards supported by scientific data to support recycling and reuse (e.g. design for recycling, and stronger materials for reuse) that apply across brands, products, jurisdictions, and operations (e.g. producers and importers).
- The **private sector** should incorporate the standards into their products and operations.
- **Governments** should monitor the implementation of the standards.

Build Systems and Infrastructure to Phase Out Single-Use Plastics

B3: *Greater preference for cheaper but less sustainable production options by companies.* With greater market competition, producers often face the issue of practicality versus circularity (Wahyuni, 2023). Producers may be tempted to lower their production costs by using cheaper but less sustainable production options, sometimes at the cost of the safety and quality of the products (Wahyuni, 2023). One example is using materials that are cheaper but harder to recycle.

B4: *Greater burden on consumers to reuse.* Most implementation of reuse relies on the consumers' initiative to retain, clean, and bring the packaging to refill stations. Factors such as the distance to refill stations and the weight of the products and their containers may be burdensome and deter consumers from participating in reuse. In reality, consumer convenience is key to scale up the implementation of reuse (Mafira, 2023).

B5: *Lack of enabling environment and infrastructure for reuse.* The implementation of reuse requires an elaborate supporting system and infrastructure, including collection, logistics and reverse logistics, sanitation, as well as surveillance, many of which are still limited or unavailable (Irwan, 2023; Mafira, 2023). Without the necessary system and infrastructure, it is difficult to implement and upscale, especially without causing an excessive burden on consumers (Maulana, 2023).

To address these challenges:

- **Governments** should create interventions to phase out single-use plastics, especially low-value and hard-to-recycle plastics, and promote sustainable alternatives such as reuse.
- **Governments** should support the transition to more sustainable alternatives by building an enabling ecosystem and infrastructure to allow for their cost-effective and large-

scale implementation.

- The **private sector** should explore sustainable production and packaging options and transition to reuse systems to phase out single-use plastics and consider strategies to implement this effectively without creating an excessive burden on consumers.

Downstream Recommendations

Enhance Waste Collection for Recycling

C1: *Lower rate of waste collection compared with plastic production, resulting in low supply of recyclable materials for upstream processes.* Low levels of waste collection arising from the lack of proper waste management infrastructure and consumer behaviour to segregate waste result in a limited amount of recycled feedstock to be used in upstream processes (Pangestu, 2023). In some cases, this mismatch between the supply of recyclable waste and demand for recycled materials is exacerbated by the continued increase in plastic waste production despite unchanging levels of waste collection for recycling (Azhar, 2023). This issue may worsen once minimum recycling rates are enforced.

C2: *Lack of supporting infrastructure for plastic waste collection, management, and recycling.* The lack of supporting infrastructure for plastic waste collection, management, recycling, and monitoring deters the effective collection of plastic waste, creating an inefficient value chain and potentially reducing the recyclability and value of plastics (Azhar, 2023; Darus, 2023; Kojima, 2023). This is especially evident in small and medium-sized businesses, which tend to have less capacity and infrastructure than larger businesses (Sith, 2023).

To address these challenges:

- **Governments** and the **private sector** should collaborate to increase the collection of plastic waste for recycling through practical and policy interventions, with clear task distributions based on their circumstances and capabilities. These efforts may encompass strengthening infrastructure (e.g. increased waste collection points, and recycling facilities) and implementing policy instruments such as extended producer responsibility (EPR) to ensure that the amount of plastic waste collected is proportional to the amount of plastics produced.

Strengthen Support for the Informal Waste Sector

C3: *Lack of support for informal sector in waste collection processes.* The informal sector plays a notable role in the waste collection process in Southeast Asia (Darus, 2023). However, despite their contribution, workers in this sector are often put in vulnerable situations and do not receive sufficient support in facing challenges including social issues such as human rights and child labour as well as hazardous working conditions (Azhar, 2023; Nugroho, 2023).

To address this challenge:

- **Governments** should provide financial and technical support to the informal waste collection system and must ensure that informal waste collection processes comply with human rights, safety standards, and labour regulations.
- The **private sector** may provide financial and technical support as part of its EPR.

Harmonise Regional and International Trade in Plastics

C4: *Differing levels of supply and demand for recyclable waste and recycled materials amongst AMS.* Although it is important for each AMS to keep building its capacity and developing supporting infrastructure to handle plastic waste, not all of them must be able to carry out all the stages of recycling (Woodring, 2023). In a global circular economy, where used plastics can be seen as a commodity instead of waste, countries may engage in trade in plastics to accommodate differences in capacities as well as supply and demand for recyclable and recycled plastics (Jalil, 2023; Woodring, 2023).

To address this challenge:

- **ASEAN and governments** should develop regulations for equitable trade in recyclable waste and recycled materials amongst AMS, e.g. by establishing regional standards and enforcing compliance with the Basel Convention.
- The **private sector** in different AMS participating in trade in recyclable waste and recycled materials should abide by national, regional, and international regulations and standards.

RECOMMENDATION 2

Stakeholder Engagement for Plastics Circularity

Key Message

The increased urgency of the plastic pollution issue, especially in recent years, calls for the engagement and mobilisation of all stakeholders. To achieve this, communications strategies must be employed to raise awareness, harmonise strategies, and enhance collaboration and coordination amongst stakeholders to combat plastic pollution.

Background

Combating the complex issue of plastic pollution requires the mobilisation of stakeholders across various sectors, including the public. On engaging the public, initiatives to reduce plastic waste generation through banning single-use plastic bags are amongst the most popular examples of action with wide engagement, including amongst AMS (Lyons, Liu, and Lim, 2022). However, a systemic review of cases revealed mixed levels of effectiveness in their implementation due to factors including lack of support from stakeholders as well as weak monitoring and enforcement (Lyons, Liu, and Lim, 2022; Muposhi, Mpinganjira, and Wait, 2021). Below are two examples of the implementation of such bans in Malaysia and Cambodia.

After local plastic bag bans in several states, the Malaysian Ministry of Domestic Trade, Cooperative, and Consumerism (now the Ministry of Domestic Trade and Cost of Living) launched a nationwide 'No Plastic Bag Campaign Day' in January 2011 (Asmuni et al., 2015; Zen, Ahamad, and Omar, 2013). Under this campaign, an RM0.20 per plastic bag levy was placed on consumers at selected major supermarkets, retailers, and shopping malls on Saturdays (Asmuni et al., 2015; Zen, Ahamad, and Omar, 2013). The campaign achieved moderate participation, with close to 50% of consumers purchasing the plastic bags and different studies pointing to differing factors influencing this behaviour (Asmuni et al., 2015; Ismail, Suhaimi, and Karuppiah, 2021). Consumers who did not purchase plastic bags brought their own bags, purchased reusable bags, or did not use a bag to carry their purchases (Asmuni et al., 2015; Ismail, Suhaimi, and Karuppiah, 2021). It should be noted that the ban also led to other consequences, including consumers avoiding the ban by doing their shopping on a different day and increased rubbish bag sales due to households not having used plastic bags to store rubbish (Zen, Ahamad, and Omar, 2013).

More recently, in September 2023, the Ministry of Environment of Cambodia launched the 'Today I do not use plastic bags' campaign, where participants are invited to refrain from the use of plastic bags for at least 1 day per week as part of the country's broader strategy towards environmental sustainability (Ministry of Environment, 2023). Though it is still too early to tell

whether the campaign is truly successful in meeting its sustainability goals or raising awareness on plastic pollution, a clear accomplishment of the campaign is its reach. As of February 2024, the campaign has already engaged over 4.6 million people (Kuntheart, 2024), which makes up a notable proportion of Cambodia's population of 16.8 million (World Bank, n.d.).

These examples illustrate the importance of having initiatives informed by data and supported by relevant stakeholders. Existing channels for knowledge and experience sharing include the presence of several knowledge platforms in the ASEAN region that host and disseminate knowledge products on marine plastics, ranging from raw data to policy briefs. Despite the overlap in their coverage for marine plastics, each has its own specific target audiences and mandates. Table 4 provides an overview of some of these knowledge platforms.

Table 4: Overview of Several Marine Plastics-Related Knowledge Platforms in the ASEAN Region

| Platform Name | Host Institution | Description |
|---|--|---|
| ASEAN Circular Economy Stakeholder Platform | ASEAN Centre for Sustainable Development Studies and Dialogue (ACSDSD) at Mahidol University, Thailand | Aims to support the Association of Southeast Asian Nations (ASEAN) Member States (AMS) in transitioning towards a circular economy. |
| ASEAN Environment Knowledge Hub | ASEAN Secretariat | Integrated system for environmental information and data management to support policymaking among AMS. |
| COBSEA Regional Node Platform | Coordinating Body on the Seas of East Asia (COBSEA) | Hosts knowledge and network resources on plastic pollution to promote collaborative and evidence-based actions in the East Asian Seas region. |
| CounterMEASURE GIS Platform | United Nations Environment Programme (UNEP) | Developed as part of the Promotion of Countermeasures Against Marine Plastic Litter in Southeast Asia and India (CounterMEASURE) project, which focused on identifying a model to monitor and assess pollution reduction and plastic leakage in the region. |
| Regional Knowledge Centre for Marine Plastic Debris (RKC-MPD) | Economic Research Institute for ASEAN and East Asia (ERIA) | Information clearinghouse to support the ASEAN+3 (ASEAN, China, Japan, and the Republic of Korea) Member States in addressing marine plastic debris. |
| Know Waste Knowledge (KWK) Platform | Regional Resource Centre for Asia and the Pacific (RRC-AP) at the Asian Institute of Technology | Platform of information and knowledge sharing on waste management to support decision-making related to marine debris in the ASEAN region. |

Table 4: Continued

| Platform Name | Host Institution | Description |
|--|---|--|
| Marine Environment Protection of the South-East Asian Seas (MEPSEAS) | International Maritime Organization (IMO) | IMO project aimed at assisting developing countries address marine environmental issues relating to ships and shipping through the implementation of four key IMO international environmental conventions. |
| Seas of East Asia (SEA) Knowledge Bank | Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) | Supports integrated coastal management as well as investment in sustainable coastal and marine development and management in the Seas of East Asia region. |
| Unwaste | United Nations Office on Drugs and Crime (UNODC) | Project focusing on fighting waste trafficking between the European Union (EU) and Southeast Asian countries through the promotion of EU-ASEAN partnerships and a transition towards a circular economy. |

Sources: Authors, based on ASEAN Circular Economy Stakeholder Platform (n.d.); ASEAN Cooperation on Environment (n.d.); COBSEA (n.d.); ERIA Regional Knowledge Centre for Marine Plastic Debris (n.d.); IMO (n.d.); PEMSEA (n.d.); CounterMEASURE GIS Platform (n.d.); Regional Resource Center for Asia and the Pacific (n.d.); UNODC (n.d.).

It should be noted that it is not enough to provide relevant information on marine plastics; stakeholder engagement should also be pursued through effective communication and coordination. An analysis of published studies on plastic pollution in the ASEAN region showed that despite the wealth of information available, not all are relevant to policymakers (Centre for International Law, 2022). This highlights another important role of engagement – to avoid stakeholders working in silos and the duplication or mis-coordination of efforts, as well as to encourage incorporating multi-stakeholder perspectives in policy and decision-making. Some of the platforms listed in Table 4 also have networking features or organise partnership events that may connect relevant stakeholders in the region. Multi-stakeholder fora, including the ACCPP 2023 on which this report is based, are also examples of efforts to engage stakeholders concerned with marine plastic pollution in the ASEAN region to share experiences and discuss potential collaboration efforts.

Recommendations

Promote Evidence-Based Awareness Raising

1: *Lack of interest in or awareness of waste segregation, recycling, and reuse.* The transition to a circular economy requires the participation and cooperation of stakeholders across all sectors, including producers, regulators, and the public (Darus, 2023; Jalil, 2023; Jangprajak, 2023). However, to date, their participation is still limited due to lack of awareness, capacity, or even interest in waste segregation, recycling, and reuse.

To address this challenge:

- **ASEAN, governments, the private sector, and civil society groups** should create initiatives that are informed by existing data to raise awareness, build capacity, and provide incentives to promote the benefits of and urgency of participating in efforts to combat plastic pollution.

Enhance Multi-Stakeholder Knowledge Sharing and Collaboration

2: *Lack of collaboration and coordination amongst stakeholders.* It is impossible to implement and scale efforts to combat plastic pollution by relying on the actions of a single organisation (Chan, 2023). However, despite the evident need for collective action, including in the formulation of science-based policies, there is often lack of collaboration and coordination amongst and within related stakeholder groups (Darus, 2023; Jobling, 2023). Without effective collaboration and coordination mechanisms, there is a risk of misunderstandings, the duplication of efforts, and the development of ineffective or unsuccessful interventions (Jobling, 2023; Murad, 2023).

To address this challenge:

- **ASEAN, governments, the private sector, scientists and researchers, the finance sector, and civil society groups** should create opportunities and actively participate in knowledge sharing and idea exchange (e.g. through fora, conferences, and knowledge and partnership platforms).

RECOMMENDATION 3

Finance and Investments for a Circular Economy

Key Message

Establishing a circular plastics economy in AMS, which are mostly developing and emerging economies, requires financial support and investments. To increase the mobilisation of financial resources from both the public and private sectors, there is a crucial need for regulatory and economic interventions that create an enabling ecosystem for circular economy solutions.

Background

Materialising systemic changes to achieve plastics circularity requires a tremendous amount of financial resources. Between 2018 and 2023, the average annual global investments for plastics circularity from private financing are estimated at about US\$29 billion, much lower than the projected US\$60 billion per year that is projected to be required to reduce 80% of plastic leakage to the ocean by 2040 (The Circulate Initiative, 2023; The Pew Charitable Trusts and SYSTEMIQ, 2020). Only 8% of these investments go to Asian countries despite several countries in the region, including some AMS, being regarded as top marine plastic polluters that could benefit from more financial support to address the issue (Meijer et al., 2021; The Circulate Initiative, 2023). This highlights a gap in financing for the countries that are in greater need of these investments.

Investing in AMS may appear less attractive to investors because of the high associated risks, including political and regulatory risks due to the AMS in general being mostly young developing countries (Choi, Zhou, and Laxton, 2022; Schröder and Raes, 2021). Moreover, despite some positive signs, the secondary plastics market is still relatively small and vulnerable, which may cause further hesitation amongst investors (OECD, 2018; 2022). Solving these issues would require interventions to develop implementation capacity and innovative finance mechanisms (Guzman, 2023). The inclusion of a provision on financing in the zero draft of the ILBI discussed during the INC sessions may also help in overcoming these risks and addressing the gap in financing.

The provision in the zero draft of the ILBI calls for participating countries, multilateral organisations, agencies, and funds to increase support, including in the form of financial resources, to developing countries in implementing the instrument (UNEP, 2023c). In their statements during the third INC session, several AMS and groups of parties that AMS are

members reiterated this need for financial support for developing countries. Although multiple plastics circularity initiatives funded by various stakeholders – including developed countries, development organisations, and the private sector – already exist in AMS, this provision would greatly benefit the region in broadening the implementation of these initiatives and speeding up the process of moving towards a fully circular economy.

Addressing the challenges in securing finance and investments for a novel and complex issue such as plastic pollution requires political and financial interventions that should not be burdened solely on governments or the private sector. Innovative multi-stakeholder approaches such as blended financing, results-based financing, and technology and knowledge transfers should be explored (Guzman, 2023; Pangestu, 2023). However, it is also important to note that there is no one-size-fits-all remedy. On the contrary, countries should choose the most appropriate instruments based on their specific conditions and needs.

Recommendations

Apply Policy De-Risking Measures to Reduce Political and Regulatory Risks

1: Political and regulatory risks. Investors may be hesitant to invest in circular economy projects in Southeast Asia due to the associated risks, such as those related to the political and regulatory landscapes across AMS. To reduce these risks, accountability mechanisms are needed to support AMS in implementing circular economy initiatives and complying with existing regulations and obligations (Guzman, 2023).

To address this challenge:

- **ASEAN and governments** should apply policy de-risking measures to address the underlying causes of investment risks, including:
 - establishing NAPs with clearly defined targets (e.g. plastic reduction and/or recycling rate);
 - strengthening legal and policy frameworks on the circular economy (e.g. green taxonomy and EPR) both at the national and regional levels; and
 - strengthening law enforcement and monitoring.

Apply Financial De-Risking Measures to Reduce Financial Risks

2: High capital and other financial risks. Circular economy models require high costs to start, operate, and scale up (Irwan, 2023; Lase, 2023; Maulana, 2023; Pangestu, 2023; Wahyuni, 2023). Furthermore, it may also be perceived as risky by investors due to the relatively volatile state of the recycled plastics market (Azhar, 2023). Nevertheless, AMS are amongst the countries with the greatest need for financial support to address plastic pollution due to the gravity of the issue in the region and the strong need for capacity building and infrastructure development to address it (Popattanachai, 2023).

To address this challenge:

- **Governments**, the **finance sector**, and the **private sector** should apply financial de-risking instruments to alleviate risks for private investors, such as grants, loans, debt, and equity; blended financing; public–private partnerships; and incentives (e.g. tax reductions and green credit).

Disseminate Information on Investment Opportunities

3: *Limited information on investments.* To transition towards a circular economy, businesses need to have access to sustainable finance (Jalil, 2023). Although some funding sources are available, information on them is not always available or easily accessible.

To address this challenge:

- **ASEAN, governments**, the **finance sector**, and **civil society groups** should collaborate to effectively disseminate information on investment opportunities.

RECOMMENDATION 4

ASEAN's Role in the INC

Key Message

Although the 10 AMS are unique in their own ways, their shared geographic and socio-economic background gives rise to some overlap in views and priorities. AMS may use this as an opportunity to negotiate as a group for the global plastics treaty.

Background

With about 80% of the region's territory covered by sea, socio-economic development in AMS is heavily influenced by and dependent on the region's vast marine resources (Khalid, Ang, and Joni, 2009). This results in a common need and aspiration amongst AMS to protect and conserve the region's marine environment against threats, including marine plastic pollution. This has led to multiple collaborations within the region, such as the adoption of the Bangkok Declaration on Combating Marine Debris in the ASEAN Region as well as its related framework and regional action plan (ASEAN, 2019a; 2019b; 2021). As members of the global community, AMS have also shown support for global efforts to combat plastic pollution by participating in the INC processes, as summarised in Table 5. Not all AMS have submitted pre-session documents, though this number is increasing, and with regard to attendance, all 10 AMS have attended the past three INC sessions, except Myanmar.

Table 5: Participation of ASEAN Member States in the INC

| ASEAN Member States | INC-1 Punta del Este | | INC-2 Paris | | INC-3 Nairobi | |
|---------------------|----------------------|------------|-------------|------------|---------------|------------|
| | Submission | Attendance | Submission | Attendance | Submission | Attendance |
| Brunei Darussalam | | X* | | X | | X |
| Cambodia | | X | X | X | A & B | X |
| Indonesia | X | X | X | X | A | X |
| Lao PDR | | X | | X | | X |
| Malaysia | | X | X | X | A & B | X |
| Myanmar | | | | | | |
| Philippines | | X | X | X | A | X |

Table 5: *Continued*

| ASEAN Member States | INC-1 Punta del Este | | INC-2 Paris | | INC-3 Nairobi | |
|---------------------|----------------------|------------|-------------|------------|---------------|------------|
| | Submission | Attendance | Submission | Attendance | Submission | Attendance |
| Singapore | X | X | X | X | A & B | X |
| Thailand | X | X | X | X | A & B | X |
| Viet Nam | | X | | X | A & B | X |
| Total | 3 | 9 | 6 | 9 | 7 | 9 |

ASEAN = Association of Southeast Asian Nations, INC = Intergovernmental Negotiating Committee.

*Online attendance.

Notes: Participation is determined based on their pre-session submissions ('Submission') and attendance at the sessions ('Attendance'), marked by 'X'. The letters under 'Submission' for INC-3 indicate which of the two pre-submission documents, Parts A and B, are submitted.

Sources: Fürst and Rognerud (2023); INC Secretariat (n.d.-a, n.d.-b, n.d.-c, n.d.-d); UNEP (2022a, 2023a, 2023b).

Although the 10 AMS are unique in their own ways, their shared geographic and socio-economic background gives rise to some overlap in views and priorities. In global negotiations, this provides them with an opportunity to join forces and negotiate with a united front. This was reflected in the statements expressed by the representatives of Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam during the discussion on the preparation of an ILBI on plastic pollution at INC-3 (Delegation from Cambodia, 2023; Delegation of Indonesia, 2023; Delegation of Malaysia, 2023; Delegation of Singapore, 2023; Delegation of Thailand, 2023; Delegation of Viet Nam, 2023; Government of the Philippines, 2023). The Philippines also spoke on behalf of the Asia Pacific Group, while Singapore spoke on behalf of the Working Group on Marine Litter of the Coordinating Body on the Seas of East Asia (COBSEA), of which most AMS are members (Asia Pacific Group, 2023; COBSEA, 2023). Despite some differences, the statements generally called for:

- **A comprehensive approach.** A comprehensive approach to plastic pollution would address plastics throughout their life cycle and consider legacy, present, and future plastic pollution. In implementing this, AMS pointed out the need for clearly defined and harmonised terms and concepts that are backed by science. Furthermore, addressing plastic pollution should not be limited to restricting plastic use, but should also consider the socio-economic impacts of such restrictions and how to integrate plastics in a circular economy.
- **Country-specific initiatives.** Efforts to combat plastic pollution should be country-driven as each country knows best its specific circumstances, capabilities, and needs. This would create more inclusivity and promote broader participation amongst states. Several AMS called for a common but differentiated responsibility approach in addressing plastic pollution.
- **Cooperation amongst states.** AMS called for international and regional cooperation to streamline and leverage, instead of duplicate, existing efforts. Considering the different

capacities amongst countries, financial and technical assistance should also be provided, particularly to developing countries and those that are more vulnerable to plastic pollution.

With one upcoming INC session remaining – INC-5 in Busan from November to December 2024 – AMS can continue participating in the negotiation processes. It is up to AMS to seize this moment to let their voices be heard and play a role in shaping an ILBI that is best suited to their needs and aspirations as well as those of the region.

Recommendations

Support Active Participation in INC Processes

1: *Different levels of participation in the INC process amongst AMS.* Addressing a global issue that affects all countries around the world requires an ILBI that is good for all participating countries (Hadiputranto, 2023). It does not simply mean making sure that all the participating countries agree on a text; rather, it is about reaching a compromise (Murad, 2023). This starts with each country proactively sharing its views and concerns as well as listening attentively to those of others in the negotiation sessions (Hadiputranto, 2023; Murad, 2023). However, up until the third INC session, AMS had different levels of participation, with some countries having little to no participation.

To address this challenge:

- **ASEAN, governments, and civil society groups** should conduct capacity building activities to support representatives of AMS in the INC to participate effectively in the negotiation processes.
- **Governments** should also encourage their representatives in the INC to participate actively in the negotiation processes to advocate AMS' interests.

Ensure Alignment of ILBI with Existing Regulations

2: *Risk of misalignment of the treaty text with national and regional priorities, regulations, and standards.* The challenge in drafting an ILBI not only lies in getting the participating countries to reach a consensus, but also in ensuring that the treaty text fits the existing international legal system, including other marine policies in the region (Jobling, 2023; Popattanachai, 2023). Agreeing to the treaty text without careful consideration on this matter creates a risk of misalignment with national and regional priorities, regulations, and standards.

To address this challenge:

- **Governments** should encourage their representatives in the INC to participate actively as representatives of their respective AMS and as part of groups of parties in the negotiation processes.
- **Governments** should participate in ASEAN-level meetings prior to the INC meetings to discuss similarities and differences in stance with regard to the components of the draft text amongst AMS.

Conclusion

At the current rate of plastic pollution, it is more critical than ever to act – especially for the ASEAN region, which is amongst the most impacted. Despite the gravity of the issue, there is still hope as efforts are already under way, including at the global level where an ILBI on plastic pollution is under negotiation. Shifting away from a linear to a circular economy and becoming part of a sustainable supply chain is imperative in addressing plastic pollution. Although achieving this transition is not without its challenges, AMS should view this as an opportunity for the region to develop its competitiveness on the global stage (Jalil, 2023; Pangestu, 2023). To succeed, regional collaboration, coordination, and the sharing of knowledge and experiences amongst stakeholders in the region are key.

On that note, the ACCPP 2023 was held to provide a unique opportunity for stakeholders concerned with plastic pollution across the region to gather, share experiences and lessons learnt from existing efforts, and discuss potential collaboration to address the issue collectively. This report has provided a list of actionable recommendations developed from the exchanges that occurred throughout the ACCPP 2023. The recommendations in this report may be a starting point for stakeholders to take part in efforts to combat plastic pollution in the ASEAN region.

The recommendations in this report draw upon the underlying idea that addressing plastic pollution requires interdisciplinary perspectives, with interventions throughout the plastic life cycle and through the engagement of stakeholders across different sectors. By shifting the view of plastics as waste to plastics as a valuable resource, this material may be used sustainably as part of a circular economy. Achieving this would require the implementation of specific technical strategies, engagement with all stakeholders, and the creation of enabling conditions to stimulate financial investments, in line with the ILBI and with the support of ASEAN to ensure the harmonisation of efforts both at regional and global scale.

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Annex

RECOMMENDATION 1: Technical Strategies Across the Plastic Life Cycle

● : Reuse, ● : Recycling

| No. | Challenges | Actions |
|---|--|---|
| A | Upstream | |
| Promote the Use of Recycled Plastic Pellets | | |
| A1 | Higher preference for virgin resins over recycled pellets due to lower production costs ● | <p>Governments should create regulatory and economic interventions to boost the use of recycled plastics, such as minimum recycled content and subsidies.</p> <p>The private sector, including plastic producers and importers, should keep up to date and comply with the latest regulations on minimum recycled content as well as increase the usage of recycled pellets.</p> |
| B | Midstream | |
| Establish Product and Packaging Standards for Plastics Reuse and Recycling | | |
| B1 | Lack of product and packaging design standards ●● | <p>ASEAN and governments should work together with scientists and researchers to study and set standards supported by scientific data to ensure consumer safety, especially in reuse systems (e.g. the type of products where packaging is safe to be reused, and materials to use for reusable containers).</p> <p>ASEAN and governments should also collaborate with the private sector to establish product design standards supported by scientific data to support recycling and reuse (e.g. design for recycling, and stronger materials for reuse) that apply across brands, products, jurisdictions, and operations (e.g. producers and importers).</p> |
| B2 | Limited scale of implementation of reuse and recycling to certain brands, products, and jurisdictions ●● | <p>The private sector should incorporate the standards into their products and operations.</p> <p>Governments should monitor the implementation of the standards.</p> |

| No. | Challenges | Actions |
|--|--|---|
| Build Systems and Infrastructure to Phase Out Single-Use Plastics | | |
| B3 | Greater preference for cheaper but less sustainable production options by companies ● ● | <p>Governments should create interventions to phase out single-use plastics, especially low-value and hard-to-recycle plastics, and promote sustainable alternatives such as reuse.</p> <p>Governments should support the transition to more sustainable alternatives by building an enabling ecosystem and infrastructure to allow for their cost-effective and large-scale implementation.</p> <p>The private sector should explore sustainable production and packaging options and transition to reuse systems to phase out single-use plastics and consider strategies to implement this effectively without creating an excessive burden on consumers.</p> |
| B4 | Greater burden on consumers to reuse ● | |
| B5 | Lack of enabling environment and infrastructure for reuse ● | |
| C | Downstream | |
| Enhance Waste Collection for Recycling | | |
| C1 | Lower rate of waste collection compared with plastic production, resulting in low supply of recyclable materials for upstream processes ● | <p>Governments and the private sector should collaborate to increase the collection of plastic waste for recycling through practical and policy interventions, with clear task distributions based on their circumstances and capabilities. These efforts may encompass strengthening infrastructure (e.g. increased waste collection points, and recycling facilities) and implementing policy instruments such as extended producer responsibility to ensure that the amount of plastic waste collected is proportional to the amount of plastics produced.</p> |
| C2 | Lack of supporting infrastructure for plastic waste collection, management, and recycling ● | |
| Strengthen Support for the Informal Waste Sector | | |
| C3 | Lack of support for informal sector in waste collection processes ● | <p>Governments should provide financial and technical support to the informal waste collection system and must ensure that informal waste collection processes comply with human rights, safety standards, and labour regulations.</p> <p>The private sector may provide financial and technical support as part of its extended producer responsibility.</p> |

| No. | Challenges | Actions |
|---|---|---|
| Harmonise Regional and International Trade in Plastics | | |
| C4 | Differing levels of supply and demand for recyclable waste and recycled materials amongst AMS ● | <p>ASEAN and governments should develop regulations for equitable trade in recyclable waste and recycled materials amongst AMS, e.g. by establishing regional standards and enforcing compliance with the Basel Convention.</p> <p>The private sector in different AMS participating in trade in recyclable waste and recycled materials should abide by national, regional, and international regulations and standards.</p> |

AMS = ASEAN Member State/s, ASEAN = Association of Southeast Asian Nations.

Source: Authors.

RECOMMENDATION 2: Stakeholder Engagement for Plastics Circularity

| No. | Challenges | Actions |
|--|---|---|
| Promote Evidence-Based Awareness Raising | | |
| 1 | Lack of interest in or awareness of waste segregation, recycling, and reuse | ASEAN, governments, the private sector, and civil society groups should create initiatives that are informed by existing data to raise awareness, build capacity, and provide incentives to promote the benefits of and urgency of participating in efforts to combat plastic pollution. |
| Enhance Multi-Stakeholder Knowledge Sharing and Collaboration | | |
| 2 | Lack of collaboration and coordination amongst stakeholders | ASEAN, governments, the private sector, scientists and researchers, the finance sector, and civil society groups should create opportunities and actively participate in knowledge sharing and idea exchange (e.g. through fora, conferences, and knowledge and partnership platforms). |

ASEAN = Association of Southeast Asian Nations.

Source: Authors.

RECOMMENDATION 3: Finance and Investments for a Circular Economy

| No. | Challenges | Actions |
|--|--|--|
| Apply Policy De-Risking Measures to Reduce Political and Regulatory Risks | | |
| 1 | Political and regulatory risks | <p>ASEAN and governments should apply policy de-risking measures to address the underlying causes of investment risks, including:</p> <ul style="list-style-type: none"> • establishing national action plans with clearly defined targets (e.g. plastic reduction and/or recycling rate); • strengthening legal and policy frameworks on the circular economy (e.g. green taxonomy and extended producer responsibility), both at the national and regional levels; and • strengthening law enforcement and monitoring. |
| Apply Financial De-Risking Measures to Reduce Financial Risks | | |
| 2 | High capital and other financial risks | <p>Governments, the finance sector, and the private sector should apply financial de-risking instruments to alleviate risks for private investors, such as grants, loans, debt, and equity; blended financing; public-private partnerships; and incentives (e.g. tax reductions and green credit).</p> |
| Disseminate Information on Investment Opportunities | | |
| 3 | Limited information on investments | <p>ASEAN, governments, the finance sector, and civil society groups should collaborate to effectively disseminate information on investment opportunities.</p> |

AMS = ASEAN Member State/s, ASEAN = Association of Southeast Asian Nations.

Source: Authors.

RECOMMENDATION 4: ASEAN's Role in the INC

| No. | Challenges | Actions |
|--|--|---|
| Support Active Participation in INC Processes | | |
| 1 | Different levels of participation in the INC process amongst AMS | <p>ASEAN, governments, and civil society groups should conduct capacity building activities to support representatives of AMS in the INC to participate effectively in the negotiation processes.</p> <p>Governments should encourage their representatives in the INC to participate actively in the negotiation processes to advocate AMS' interests.</p> |

| Ensure Alignment of ILBI with Existing Regulations | | |
|---|---|---|
| 2 | Risk of misalignment of treaty text with national and regional priorities, regulations, and standards | <p>Governments should encourage their representatives in the INC to participate actively as representatives of their respective AMS and as part of groups of parties in the negotiation processes.</p> <p>Governments should participate in ASEAN-level meetings prior to the INC meetings to discuss similarities and differences in stance with regard to the components of the draft text amongst AMS.</p> |

AMS = ASEAN Member State/s, ASEAN = Association of Southeast Asian Nations, INC = Intergovernmental Negotiating Committee.

Source: Authors.

