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Extended Producer Responsibility on Plastics in Southeast Asian Countries

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Estimation of Leakages of Plastics

Jambeck et al.(2015) Leakage to Ocean in 2010

	Country	Leakage
1	China	1.35-3.53
2	Indonesia	0.48-1.29
3	Philippines	0.28-0.75
4	Vietnam	0.28-0.73
6	Thailand	0.15-0.41
8	Malaysia	0.14-0.37
17	Myanmar	0.07-0.18
20	USA	0.04-0.11

Estimated from population within 50km from the ocean, per capita waste generation, rate of mismanaged waste, share of plastics in waste

Borrelle et al.(2020) Leakage to ocean, lake and river in 2018

	Country	Leakage
1	Russia	3.32-4.02
2	India	2.87-3.82
3	Indonesia	1.76-2.20
4	China	1.60-2.06
5	Thailand	1.08-1.34
9	Philippines	0.53-0.63
11	Myanmar	0.38-0.47
16	Vietnam	0.30-0.37
29	Malaysia	0.19-0.21

Estimated from population, distance to aquatic environment, slope, per capita waste generation, rate of mismanaged waste, share of plastics in waste

Meijer et al.(2021) Leakage to ocean from rivers in 2018.

	Country	Leakage
1	Philippines	0.356
2	India	0.126
3	Malaysia	0.073
4	China	0.070
5	Indonesia	0.056
6	Myanmar	0.040
7	Vietnam	0.028
9	Thailand	0.022

Estimated correlation of monitoring result and explanatory variables such as population, mismanaged plastic waste, and others



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Extended Producer Responsibility in Southeast Asian Countries



Extended Producer Responsibility (EPR)

“ A policy approach which makes producers responsible for their products along the entire life cycle, including at the post-consumer stage. ”

(OECD, 2024)

A few types of EPR Schemes



Financial EPR

Product recovery, collection, and/or treatment by the public sector with funds collected from the private sector



Operational EPR

The private sector funds and conducts product collection and recovery individually or collectively



Voluntary vs mandatory EPR

Evidence suggests that mandatory EPR is more effective

Current EPR Landscape in ASEAN



Implementing EPR

1. Indonesia
2. The Philippines
3. Singapore
4. Viet Nam

Developing or Considering EPR

1. Brunei Darussalam
2. Cambodia
3. Lao PDR
4. Malaysia
5. Myanmar
6. Thailand

Landscape of EPR for Plastics in ASEAN

No	Country	EPR Framework	Effective since	Obligation under EPR
1	Indonesia	Waste Reduction Roadmap by Producers	2019	Prepare and implement a 3R-plan to reduce waste and submit an annual implementation report.
2	Singapore	Mandatory Packaging Reporting	2020	Submit information on the specified packaging used to pack regulated goods, accompanied by a 3R plan aimed to reduce packaging.
		Beverage Container Return Scheme	2026 (upcoming)	Apply a refundable deposit of 10 cents on all pre-packaged beverages, which will be circulated from beverage producers, consumers, retailers, and back to the producers.
3	Philippines	EPR Act	2022	Prepare and register an EPR program to reduce non-eco-friendly plastic packaging at the upstream phase and operate product waste recovery programs at the downstream phase.
4	Vietnam	Law on Environmental Protection 2020	2022	Fulfill recycling responsibility by either organizing recycling or making financial contribution to the Viet Nam Environmental Protection (VEP) fund.

Landscape of EPR for Plastics in ASEAN

No	Country	EPR Framework	Obligated Producers		Collection Mechanism	Target Items			
			Plastic Manufacturers	Brand Owners		Packaging (Plastic, Paper, Glass, Metal)	Beverage Containers	SUP items (straws, cutleries, cups)	SUP bags
1	Indonesia	Waste Reduction Roadmap by Producers	-	✓	Take-back, buy-back	✓	✓	✓	✓
2	Singapore	Mandatory Packaging Reporting	-	✓	Take-back	✓	✓	-	-
		Beverage Container Return Scheme	-	✓	Deposit refund	-	✓	-	-
3	Philippines	EPR Act	✓	✓	Redemption, buy-back	✓ (only plastic, both flexible and rigid)	✓ (only plastic)	-	✓
4	Vietnam	Law on Environmental Protection 2020	✓	✓	Take-back, advance disposal fee	✓	✓	-	-

Development of EPR in ASEAN

No	Country	Target Effective Year	Development Progress	Voluntary EPR
1	Malaysia	2026	<ul style="list-style-type: none"> • Malaysia Plastics Sustainability Roadmap 2021-2030 (2021): Set out the implementation of voluntary EPR scheme from 2021-2025 and mandatory scheme from 2026 onwards • Circular Economy Blueprint 2025-2035 (2024): Included the implementation of EPR for solid waste as an initiative under the Strategic Pillar on Governance and Legislation. 	 Led by MAREA
2	Thailand	2027	<ul style="list-style-type: none"> • Action Plan on Plastic Waste Management Phase II 2023-2027 (2023): Outlines the implementation of EPR for plastic packaging • Currently developing the draft Act on Sustainable Management of Packaging. 	 Led by TIPMSE
3	Cambodia	-	<ul style="list-style-type: none"> • Endorsed EPR in the National Circular Economy Strategy and Action Plan and Cambodia's Roadmap for Sustainable Consumption and Production 	-
4	Lao PDR	-	<ul style="list-style-type: none"> • National Plastics Action Plan for the Lao PDR 2024-2030 (2024): Included the establishment of voluntary EPR schemes as a short-term activity (2024-2025) 	-
5	Myanmar	-	<ul style="list-style-type: none"> • National Waste Management Strategy and Master Plan for Myanmar 2018-2030 (2018): Proposed the introduction of EPR to reduce and sustainably manage waste 	-
6	Brunei Darussalam	-	<ul style="list-style-type: none"> • Brunei Darussalam Economic Blueprint: Promotes green, blue, and circular economy. 	-



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EPR in the Global Plastic Treaty



Current Provision on EPR in Draft ILBI

Introduction

0. No provision on this matter
1. Each Party is encouraged to implement EPR:
 - Mandatory, where possible, or voluntary
 - Within its jurisdiction and shall not extend to international supply chains
 - Fiscal and/or non-fiscal
 - With flexibility in the scope of the application

Objectives

- Contribute to collection, transport, sorting, and/or management of plastic waste, and where appropriate clean up of littering
- Promote 3R through:
 - A sustainable and circular design
 - Increased reuse
 - Increased recyclability
 - Promote higher recycling rates
- Cooperate regionally and at a global level in implementation of EPR schemes to address plastic leakage due to disasters such as flooding

Implementation

- 2.1. Take into account a just transition
- 2.2. Take account of the guidelines developed by the governing body in annex D
- 2.3. Ensure traceability and accountability mechanisms
- 2.4. Reflect the measures taken to implement this provision in the national plan
- 2.5. Consider cooperating at regional and global level in the implementation of EPR

What this could mean for ASEAN

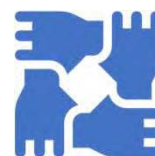


AMS are **encouraged to establish** mandatory or voluntary **EPR schemes** within their jurisdictions.



AMS **can determine** the **most suitable** implementation mechanism for EPR, taking into account the **guidelines** set under the treaty.

In implementing EPR, AMS:



Should contribute to a **just transition** with the **informal waste sector**



Should ensure efficient and effective **traceability and accountability** mechanisms



Can **coordinate on a regional** level

Regional Coordination: Harmonization on Supporting Guidelines and Standards for EPR

Design-for-Recycling



Can increase the end-of-life values of plastic products, incentivizing its proper management, including recycling.

Example: Shifting from colored to colorless PET bottles

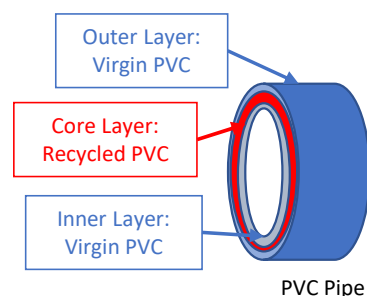
Food Grade Recycled Materials



Enable a closed-loop recycling that ensures the quality and safety of recycled plastics in food packaging.

Example: Indonesian National Standard (SNI) 8424:2017 on recycled PET packaging resins.

Recycled Products Standard



Help ensure that the quality of recycled products are competitive with that of products made from virgin materials.

Example: Japan Industrial Standard on PVC pipes
SIRIM (Malaysia) on compostable products

Eco-Labeling



Promote goods and services that demonstrate environmental excellence, enabling consumers to make informed choices.

Example: Singapore's Logo for Products with Reduced Packaging (LPRP)



EPR is not a challenge, but an *opportunity*

EPR is *gaining momentum* in the region,
it's time to build on that.





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