

Supporting a Circular Economy Approach to Reduce Plastics Pollution in Asia



*Empowered lives.
Resilient nations.*



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**Track 2: Marine Pollution and Clean
Water**

**Session 2.3: Marine Plastic Pollution: A
Global Issue with National and Local
Solutions**

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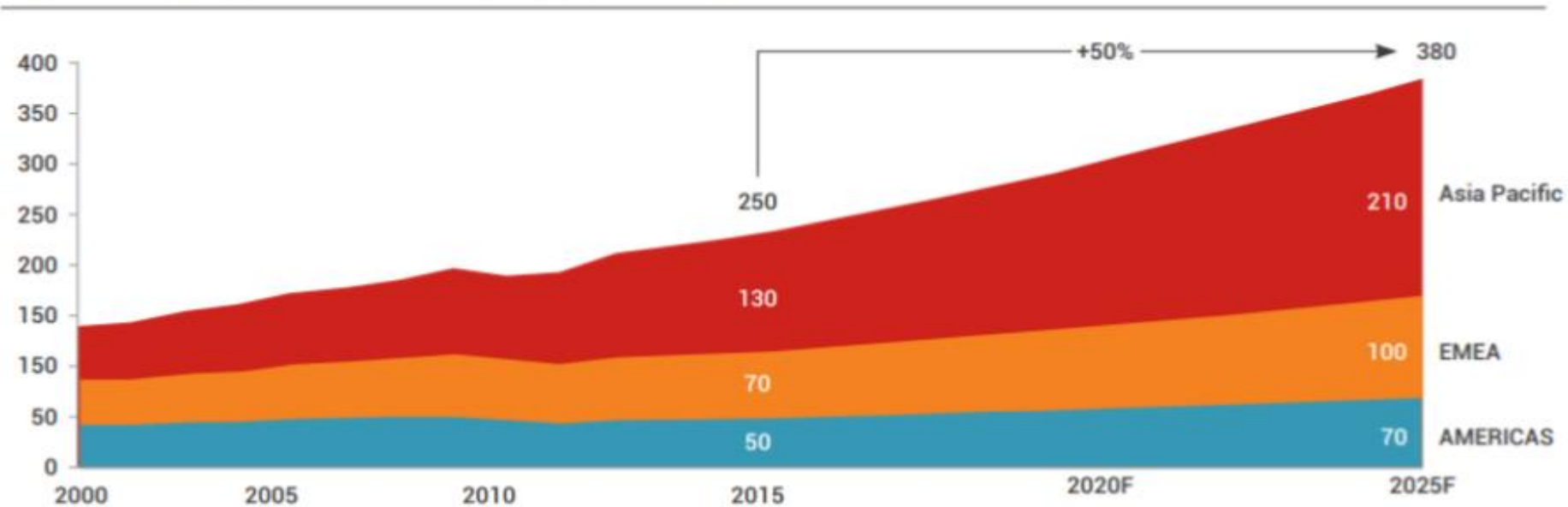
The Global Plastics Problem



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Global plastic consumption by region

Millions tons plastic consumed annually, 2000-2025F



Global Plastic Consumption Forecast (Trash Free Seas Alliance 2017)

Econ. classif., economic classification; HIC, high income; UMI, upper middle income; LMI, lower middle income; LI, low income (World Bank definitions based on 2010 Gross National Income). Mismanaged waste is the sum of inadequately managed waste plus 2% littering. Total mismanaged plastic waste is calculated for populations within 50 km of the coast in the 192 countries considered. pop., population; gen., generation; ppd, person per day; MMT, million metric tons.

Rank	Country	Econ. classif.	Coastal pop. [millions]	Waste gen. rate [kg/ppd]	% plastic waste	% mismanaged waste	Mismanaged plastic waste [MMT/year]	% of total mismanaged plastic waste	Plastic marine debris [MMT/year]
1	China	UMI	262.9	1.10	11	76	8.82	27.7	1.32–3.53
2	Indonesia	LMI	187.2	0.52	11	83	3.22	10.1	0.48–1.29
3	Philippines	LMI	83.4	0.5	15	83	1.88	5.9	0.28–0.75
4	Vietnam	LMI	55.9	0.79	13	88	1.83	5.8	0.28–0.73
5	Sri Lanka	LMI	14.6	5.1	7	84	1.59	5.0	0.24–0.64
6	Thailand	UMI	26.0	1.2	12	75	1.03	3.2	0.15–0.41
7	Egypt	LMI	21.8	1.37	13	69	0.97	3.0	0.15–0.39
8	Malaysia	UMI	22.9	1.52	13	57	0.94	2.9	0.14–0.37
9	Nigeria	LMI	27.5	0.79	13	83	0.85	2.7	0.13–0.34
10	Bangladesh	LI	70.9	0.43	8	89	0.79	2.5	0.12–0.31
11	South Africa	UMI	12.9	2.0	12	56	0.63	2.0	0.09–0.25
12	India	LMI	187.5	0.34	3	87	0.60	1.9	0.09–0.24
13	Algeria	UMI	16.6	1.2	12	60	0.52	1.6	0.08–0.21
14	Turkey	UMI	34.0	1.77	12	18	0.49	1.5	0.07–0.19
15	Pakistan	LMI	14.6	0.79	13	88	0.48	1.5	0.07–0.19
16	Brazil	UMI	74.7	1.03	16	11	0.47	1.5	0.07–0.19
17	Burma	LI	19.0	0.44	17	89	0.46	1.4	0.07–0.18
18*	Morocco	LMI	17.3	1.46	5	68	0.31	1.0	0.05–0.12
19	North Korea	LI	17.3	0.6	9	90	0.30	1.0	0.05–0.12
20	United States	HIC	112.9	2.58	13	2	0.28	0.9	0.04–0.11

*If considered collectively, coastal European Union countries (23 total) would rank eighteenth on the list

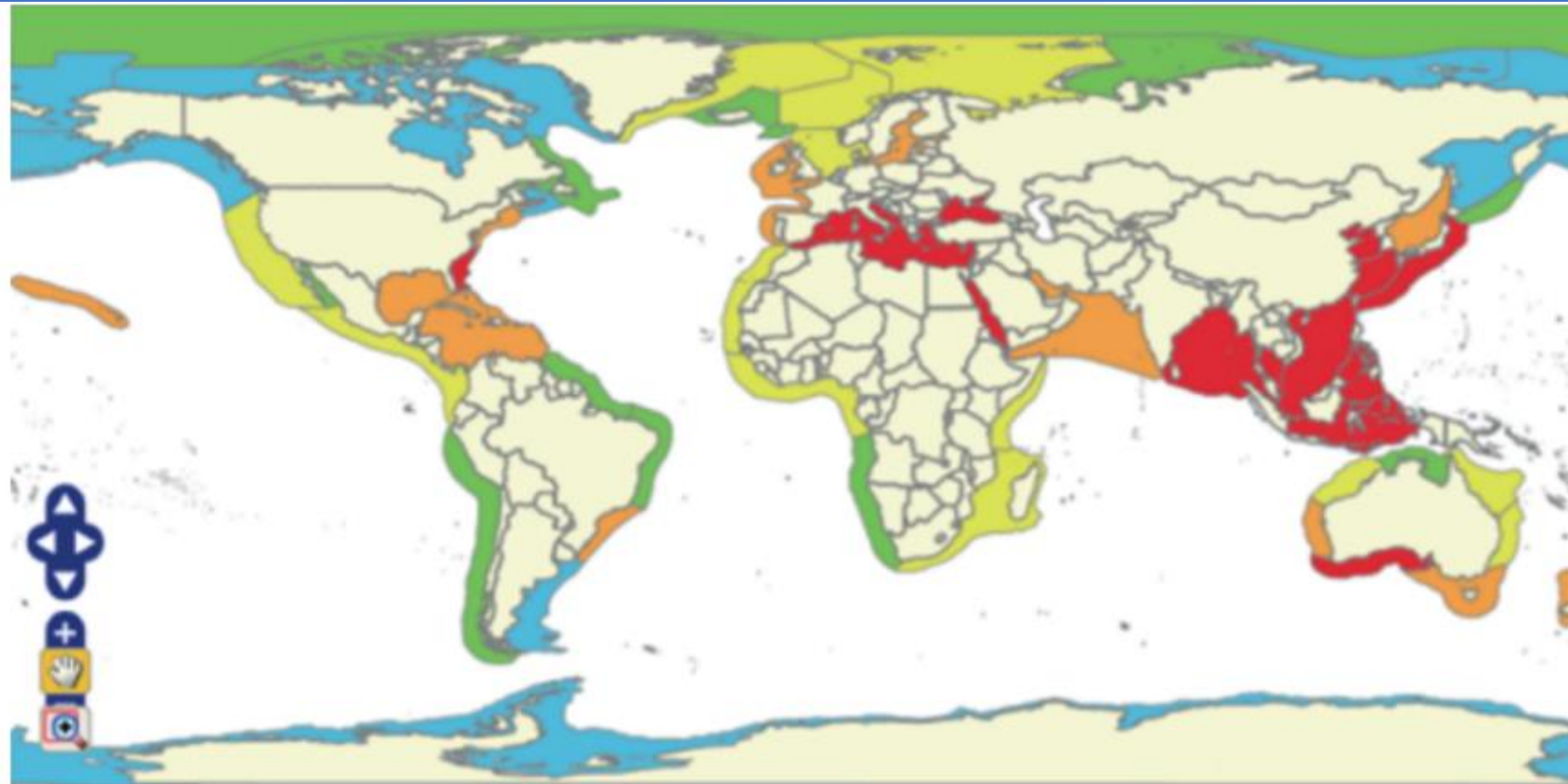
Asian countries are significant producers of plastic waste
(Jambeck et al. 2015)



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Top 4 Producers of Plastic Waste:
1 – China
2 – Indonesia
3 – Philippines
4 - Vietnam

Asian seas are a global hotspot of microplastics abundance



Risk level 1: 5.52 – 500 Risk level 2: 500 – 2,100 Risk level 3: 2,100 – 7,000 Risk level 4: 7,000 – 20,000 Risk level 5: 20,000 – 93,000

Figure 3.9. Estimated relative distribution of microplastic abundance in Large Marine Ecosystems, based on Lebreton et al. 2012. Screen shot from www.oneshared.ocean.org

Root Causes and Barriers to Change

Lack of infrastructure

China, Indonesia, the Philippines alone already make up 50% of plastic leakage into the ocean.

75% of this leakage comes from uncollected waste,

25% comes from waste escaping the collection system

Blue Ocean network



A world map with a green landmass and blue ocean. Five dashed white circles represent plastic gyres in the North Atlantic, North Pacific, South Pacific, Indian Ocean, and Southern Ocean. Various pieces of plastic waste, such as bottles, bags, and debris, are scattered within these gyres. A large semi-transparent white circle is overlaid on the left side of the map, containing text.

5 PLASTIC GYRES

Root Causes and Barriers to Change

Inadequate institutional mechanisms and investments

Lack of regulation

Lack of clear responsibility and accountability mechanisms for transboundary marine plastic waste

Root Causes and Barriers to Change



Lack of data on hazards, risks, impact and mitigation measures

Root Causes and Barriers to Change

Limited coordination and conflicting objectives across economic sectors

- plastic waste moves along ocean currents, becoming a regional problem.
- huge amount of plastic is exported for recycling. In 2016, half of all plastic intended for recycling (14.1 million tons) was exported
- legal gap in the global governance structure relating to marine plastic litter and microplastics
 - (i) no legally binding instrument dedicated to tackling marine plastic pollution
 - (ii) no agreed pollution reduction targets
 - (iii) no agreed uniform obligation to develop national action plans
 - (iv) no agreed safe plastic production rules
 - (v) no globally agreed standards for reporting and monitoring of plastics discharge and effectiveness of pollution reduction measures.



Green Waste Enterprises

Support Transition to Circular Plastics Economy in South and Southeast Asia

Develop enabling environment to support circular plastics economy

- Improve tracking and assessment of the plastics value chains
- Enhance enabling environment at the regional and national levels to support innovative circular plastics solutions.
 - (i) Facilitate agreements towards long term sustainable production of plastics or production of alternatives
 - (ii) 'multi country agreements' focusing on incentives and disincentives to promote sustainable production and consumption of plastics and other material innovations

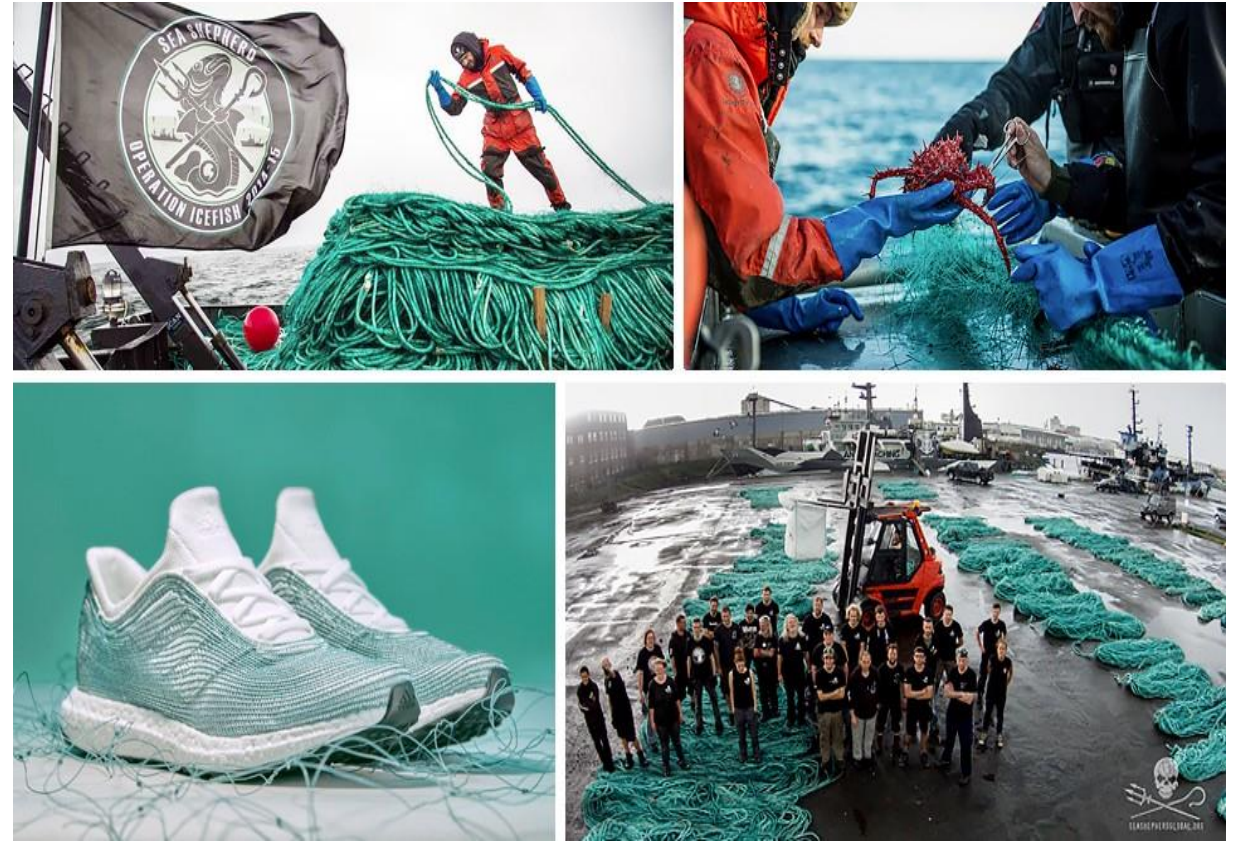


ImpactAlpha

Support Transition to Circular Plastics Economy in South and Southeast Asia

Develop enabling environment to support circular plastics economy

- (i) national and sub national policies/regulations on sustainable consumption for scaling up innovations to reduce, recover and reuse plastics;
- (ii) overall strengthening of the innovation and acceleration community infrastructure in the region.



ImpactAlpha

Support Transition to Circular Plastics Economy in South and Southeast Asia

Mobilize finance and investments

- build strategic partnerships between social impact investors, plastic producers, and countries with new generation of local entrepreneurs/ innovators
- Initiate creation of locally appropriate financial mechanisms for long term support to the generation and implementation of innovations

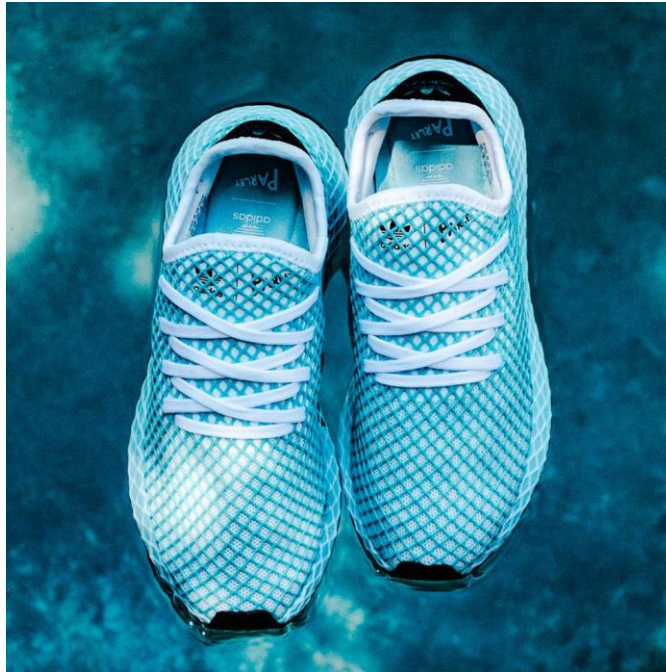


JSTOR Daily

Support Transition to Circular Plastics Economy in South and Southeast Asia



Plastic Oceanic



Implement solutions towards sustainable production and consumption of plastics

- generate actual projects in priority locations in each participating country that adapts material and design innovation

Support Transition to Circular Plastics Economy in South and Southeast Asia

Knowledge management and sharing

- To continually foster understanding of best practices, innovative solutions and approaches to tackling plastic pollution.



