

Legal Guidance on Sea-Based
Sources of Marine Litter in the
Seas of East Asia:
**Regional Gap Analysis
and Assessment**

2021



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ACRONYMS

ADB	Asian Development Bank
AHEG	Ad Hoc Experts Group
ALFDG	Abandoned, Lost and Discarded fishing Gear
AMS	ASEAN Member States
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
AWGCME	ASEAN Working Group on Coastal and Marine Environment
COBSEA	Coordinating Body on the Seas of East Asia
CSO	Civil Society Organization
EPR	Extended Producers Responsibility
FAO	Food and Agriculture Organization
FFI	Flora and Fauna International
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GLOC	Global Conference on Land-Ocean Connections
GMPL	Global Partnership on Marine Litter
GPA	Global Programme of Action
IGES	Institute for Global Environmental Strategies
IGR	Intergovernmental Review Meeting
IUCN	International Union for Conservation of Nature
KOICA	Korea International Cooperation Agency
LGU	Local Government Unit
MARPOL	International Convention for the Prevention of Pollution from Ships
NGO	Non-government Organization
NOWPAP	Northwest Pacific Action Plan
SEI	Stockholm Environment Institute
SUP	Single-use Plastic
SWM	Solid Waste Management
TWG	Technical Working Group
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
USAID	United States Agency for International Development
USD	US Dollar

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EXECUTIVE SUMMARY

This report was prepared by the United Nations Environment Programme (UNEP) and the Coordinating Body for the Seas of East Asia (COBSEA) Secretariat to provide legal guidance to COBSEA-member countries on tackling sea-based sources of marine litter. The main objective is to conduct a gap analysis and assessment of sea-based sources of marine litter related legal frameworks within the context of the issue in the East Seas region. The outcome is a set of recommendations on interventions at the regional level, and for the development and/or reform of laws and policies on marine litter (land and sea-based sources, and with a focus on plastics), to align with global efforts and best practices on the issue.

Marine litter is one of the most insidious forms of ocean pollution. Most of it originates on land and about 80% is comprised of plastic waste. Plastics are the largest, most harmful and most persistent fraction of marine litter, accounting for at least 85 % of total marine waste. Accumulation of plastic wastes in the marine ecosystem is growing rapidly given production and consumption patterns, particularly of single-use plastics. In addition, unsustainable plastic waste management practices, particularly of land-based sources are recognized as the main cause of marine plastic pollution.

COBSEA countries are already facing significant impacts from this persistent challenge. The majority of the population in COBSEA countries lives in coastal areas, contributing to rapid urbanization and the world's highest concentrations of shipping and fishing vessel activity. The East Asia and the Pacific region can also be expected to contribute massively to global waste generation.

The report is structured as follows: The regional analysis begins with a presentation of international conventions considered most relevant to addressing marine litter. This is followed by a discussion of international and regional partnerships, declarations and action plans to which COBSEA members-countries are involved in. A survey of national level laws and policies relevant to sea-based sources will then be presented. Using the gap analysis and assessment framework and methodology, the findings and observations, and identified gaps and barriers will be

presented. Thereafter a menu of proposed actions to take will be outlined, based on each gap and barrier identified.

The nine COBSEA member states are Parties to most of the international Conventions considered relevant to efforts to address marine pollution. Likewise, most of the countries are members of, or participate in, international and regional platforms that work on marine pollution, whether within particular jurisdictions or in key ecosystems. All countries also have national level policies that relate to marine litter.

An analysis of both the international and national legal frameworks show that there is an increasing level of awareness on marine litter at the international and regional level. The presence of general waste management laws in all COBSEA countries directly and indirectly target marine litter. However, it was also observed that existing laws, plans, and strategies largely focus on land-based sources of marine litter. There is also a need to address implementation, institutional and knowledge gaps (discussed in this Report) at the national and regional level. Finally, human rights, especially the rights of vulnerable groups, must be given due consideration.



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Based on the analysis and on the general observations discussed above, the following have been identified as gaps and barriers in addressing sea-based sources of marine litter in the region.

Barrier/Gap	Mitigate waste leakage into the environment	Increase waste recovery and recycling	Create a sustainable plastic production and consumer society
Legal and Policy	<ul style="list-style-type: none"> Lack of a regional or internationally binding treaty on marine litter Absence of treaty banning waste imports (particularly plastics) into the region, specifically ASEAN countries 	Absence of regional policy on waste recovery and recycling	Need for a regional policy and strategy on sustainable consumption and production
Institutional	<ul style="list-style-type: none"> Absence of a permanent regional body to consolidate efforts on marine litter Limited and ad-hoc coordination between COBSEA countries (project-based) 		
Capacity, Funding, and Resource	Limited capacity of national government agencies (including local governments) to implement regional targets and programs	Limited support to research and development, and new technology	
Implementation and Enforcement	Weak implementation and enforcement national waste management laws	Lack of accessible and functional waste infrastructure, such as recycling facilities in majority of countries	<ul style="list-style-type: none"> Limited research on regional state of marine litter Lack of research to establish clear baselines in majority of countries
Political, Societal, and Cultural	Impact of regional and national politics in the implementation regional action on marine litter	<ul style="list-style-type: none"> Prevalence of throw-away/wasteful culture Weak programs to shift consumer behavior 	

Moving forward and taking into account the specific action points detailed in this Report, an important first step is to have **a clear and definite regional response and position on the issue of marine litter**. The region needs to **accelerate and strengthen cooperation and collaboration among member states on marine litter and waste management**. The marine litter crisis will not be solved overnight – nor will it be solved completely within the next decade. Therefore the countries of the region need to **ensure continuous dialogue and regular cooperation and collaboration among its leaders and experts**.



This report was prepared by the United Nations Environment Programme (UNEP) and the Coordinating Body for the Seas of East Asia (COBSEA) Secretariat to provide legal guidance to COBSEA-member countries on tackling sea-based sources of marine litter. The main objective is to conduct a gap analysis and assessment of sea-based sources of marine litter related legal frameworks within the context of the issue in the East Seas region. The outcome is a set of recommendations on interventions at the regional level, and for the development and/or reform of laws and policies on marine litter (land and sea-based sources, and with a focus on plastics), to align with global efforts and best practices on the issue.

1

INTRODUCTION



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The Marine Litter Crisis

The recently concluded United Nations Environment Assembly (UNEA) identified pollution as the third great environmental crisis of our times, along with climate change and biodiversity loss.¹ Pollution has also been recognized as one of the major drivers of biodiversity loss and ecosystems degradation², with marine plastic pollution, in particular, negatively impacting more than 200 species, and endangering human food systems.³ As it is, the world is on a trajectory where waste generation will drastically outpace population growth by more than double by 2050.⁴

Marine litter is one of the most insidious forms of ocean pollution. Most of this originates on land and about 80 percent is comprised of plastic waste.⁵ Plastics are the largest, most harmful and most persistent fraction of marine litter, accounting for at least 85 percent of total marine waste.⁶ Plastics drifting in the ocean are highly concentrated in five subtropical gyres in the North Pacific, North Atlantic, South Pacific, South Atlantic, and Indian Ocean.

The World Bank estimates that 4.8 to 12.7 million tonnes of plastic enter the oceans annually, with 80 percent of this total coming from Asia.⁷ Further projections see East Asia and the Pacific generating 602 million tonnes of waste per year by 2030, which increases to 714 million tonnes by 2050.⁸ Current overviews show that only 9 percent of this waste is recycled, with almost half (at 46 percent) disposed of in landfills.⁹

Significant efforts have been initiated at the international, regional and national levels to address this problem. Under the United Nations Environment Programme (UNEP), work has begun on a new global agreement or instrument to provide a legal framework on marine litter, intending to facilitate national responses especially for those countries with limited resources and capacities.¹⁰ Already, there has been much support for a new legally binding international agreement on marine litter and microplastics, which “acknowledges differentiated situations and responsibilities, takes into account the lifecycle of plastic and which provides incentives and support where needed through technical assistance, financing and research.”¹¹ Several potential elements for this agreement have been outlined, including global

and national reduction targets, design standards, product phase-outs, and methodologies for monitoring.¹²

Major sources of marine litter

Land-based

- Wastes from dumpsites on the coast or river banks
- Rivers and floodwaters
- Industrial outfalls
- Discharge from stormwater drains
- Untreated municipal sewerage
- Littering of beaches and coastal recreation areas
- Tourism and recreational use of the coasts
- Fishing industry activities
- Ship-breaking yards
- Natural storm-related events

Sea-based

- Shipping and fishing activities
- Offshore mining and extraction
- Illegal and illegal dumping at sea
- Abandoned, lost, discarded fishing gear
- Natural disasters

Source: Krushelnytska, (2018)

¹ United Nations Environment Programme. 2021. Making peace with nature: A scientific blueprint to tackle the climate, biodiversity and pollution emergencies - Key Messages and Executive Summary. https://wedocs.unep.org/xmliu/bitstream/handle/20.500.11822/34949/MPN_ESEN.pdf (accessed 12 March 2021)

² Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). 2019. The Global Assessment Report on Biodiversity and Ecosystem Services - Summary for Policymakers. Bonn, Germany: IPBES Secretariat, 12

³ Ibid. 13

⁴ Kaza, Silpa, Lisa Yao, Perinaz Bhada-Tata, and Frank Van Woerden. 2018. "What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050." Overview booklet. World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO.

⁵ Kaza, Silpa, Lisa Yao, Perinaz Bhada-Tata, and Frank Van Woerden. 2018. "What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050." Overview booklet. World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO.

⁶ United Nations Environment Programme, "From Pollution to Solution: A Global Assessment of Marine Litter and Plastic Pollution", UNEP, October 21, 2021, <https://www.unep.org/resources/pollution-solution-global-assessment-marine-litter-and-plastic-pollution>.

⁷ World Bank Group, Market Study for the Philippines: Plastics Circularity Opportunities and Barriers. (2021), 12.

⁸ Silpa Kaza, Lisa Yao, Perinaz Bhada-Tata and Frank Van Woerden, What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050 (Washington DC: International Bank for Reconstruction and Development/The World Bank, 2018), 28. <https://openknowledge.worldbank.org/handle/10986/30317>.

⁹ Ibid. 39

¹⁰ Plastic Pollution Treaty, "The Business Call for a UN Treaty on Plastic Pollution," <https://www.plasticpollutiontreaty.org/>.

¹¹ Global Partnership on Marine Litter, "Outcomes of the Townhall (organized 8 June 2020)," <https://environmentassembly.unenvironment.org/turning-tide-marine-plastics-how-unea-5-can-be-turning-point-open-meeting>.

¹² UNEP (2021) 6-7

The Marine Litter Crisis Is A Plastic Crisis

Many studies point to the global demand for, and use of plastics as the main culprit for the increase in marine litter and pollution. Accumulation of plastic wastes in the marine ecosystem is growing rapidly given production and consumption patterns, particularly of single-use plastics. In addition, unsustainable plastic waste management practices, particularly of land-based sources of litter, exacerbate marine plastic pollution.¹³

Recent estimates of the amount of plastics drifting at sea, based on data collected from the five subtropical gyres, extensive coastal regions and closed seas showed more than 5 trillion plastic particles, with the smallest sizes also the most numerous.¹⁴ More particularly, the two smallest microplastic size classes combined account for over 90 percent of the global particle count, while macroplastics account for around 90 percent of the plastic pollution weight.¹⁵

This situation is compounded by existing waste management challenges across the world. These are especially pronounced in developing countries, many of which do not have the capacity, resources, and technology to deal with increasing waste generation. According to UNEP:

“

If national and local governments are unable to improve the regular service of waste collection, environmentally-friendly waste treatment and disposal systems and infrastructure, households often practice open burning or unmanaged disposal of waste. Open burning of plastic wastes contribute to air pollution due to toxic smoke, negatively affecting human health and the climate. Unmanaged disposal of plastic wastes leads to leakage of plastics into canals and rivers. Collected waste can also contribute to riverine and marine plastic pollution through leakage from waste transport, treatment, storage and landfills.

East Asia at the Epicenter of the Marine Litter Crisis

The level of contribution to plastic marine litter by a country or locality depends on the number of factors:¹⁷

- **Geography:** location of city and hydrology related to rivers, type of development, relative proximity of key polluters, topography, and water flow
- **Environment:** presence and location of native vegetative filter strips, shape of receiving water body, flow rate of receiving body, and rainfall patterns
- **Infrastructure:** type of stormwater collection system and the location of dams
- **Institutional capacity:** efficiency of waste collection and street cleaning services, extent of legislation and enforcement prohibiting littering, availability of proper waste treatment and disposal facilities, and presence and type of industry
- **Demographics:** culture and degree of environmental concern, leading to proper use of waste disposal bins; and population density
- **Economy:** income level and waste composition, with low-income communities generating larger percentages of organic wastes versus high-income communities that generate larger percentages of inorganic wastes such as plastics.

All these factors considered, the East Asian region can be seen at the epicenter of the marine litter and plastic waste crisis. The East Asia and the Pacific region can also be expected to contribute massively to global waste generation. World Bank data from 2016 shows the region accounting for 23 percent of global waste, at approximately 468 million tonnes per year. This figure is expected to increase to 714 million tonnes by 2050, still representing much of the waste that leaks into the world's oceans.¹⁸

¹³ UNEP and IGES, *Strategies to Reduce Marine Plastic Pollution from Land-based Sources in Low and Middle-Income Countries*. (UNEP and IGES, 2019), https://wedocs.unep.org/bitstream/handle/20.500.11822/31555/Marine_Plastic_Pollution.pdf?sequence=1&isAllowed=y.

¹⁴ Marcus Eriksen et al., "Plastic Pollution in the World's Oceans: More than 5 Trillion Plastic Pieces Weighing over 250,000 Tons Afloat at Sea". *PLoS ONE* 9, 12 (2014): e111913. <https://doi.org/10.1371/journal.pone.0111913>.

¹⁵ Olha, Krushelnytska. 2018. "Solving Marine Pollution: Successful models to reduce wastewater, agricultural runoff, and marine litter". World Bank. (2018), 7.

¹⁶ UNEP and IGES, *Strategies to Reduce Marine Plastic Pollution from Land-based Sources in Low and Middle-Income Countries*. (UNEP and IGES, 2019), https://wedocs.unep.org/bitstream/handle/20.500.11822/31555/Marine_Plastic_Pollution.pdf?sequence=1&isAllowed=y.

¹⁷ Ocean Recovery Alliance. 2016. *Plastic Marine Pollution and Land-Based Mechanisms*.

¹⁸ Silpa Kaza, Lisa Yao, Perinaz Bhada-Tata, and Frank Van Woerden. 2018. "What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050." Overview booklet. World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO.

The sea-based litter challenge

The sheer scale of the litter in the world's marine environments poses a grave threat to biodiversity and human communities. The Global Assessment conducted by Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services has found that "marine plastic pollution has increased tenfold since the 1980s," affecting ocean-dependent species and the humans that consume them.¹⁹ Most international, regional and national efforts have focused on addressing sea-based sources of marine.

COBSEA countries are already facing significant impacts from this persistent challenge. The majority of the population in COBSEA countries lives in coastal areas, contributing to rapid urbanization and the world's highest concentrations of shipping and fishing vessel activity.²⁰ Sea-based industries are among the chief contributors to this problem. Studies particularly identify the "fishing sector" as a "major ocean-based source of marine litter, with operations and vessels contributing around 20 percent of marine plastic."²¹

The Food and Agriculture Organization (FAO) classifies these wastes under the collective term "abandoned, lost and discarded fishing gear (ALDFG)" or "derelict fishing gear," which are thrown overboard by accident or intentionally.²² ALDFG have also been called "ghost fishing gear," and have been identified as the most problematic form of sea-based litter. Per recent estimates, "ghost fishing gear" accounts for 10 percent of all marine litter, with between 500,000 and 1 million tonnes discarded into the oceans on an annual basis.²³ ALDFG has been found across COBSEA jurisdictions, threatening their rich biodiversity and the livelihoods of so many communities who depend on healthy marine ecosystems.²⁴ Reducing and

minimizing regional marine litter from both land-based and sea-based sources requires successfully addressing waste leakage and disposal into rivers, along coastlines, and into the ocean, in the East Asian Seas region.²⁵

The recent Global Biodiversity Outlook 5 recognizes ALDFG as a "particularly deadly form of marine waste," for at least 46 percent of the species on IUCN's Red List, which are threatened with entanglement or ingestion. This gear also endangers "sensitive marine ecosystems, such as coral reefs,"²⁶ as they can "break, shade and abrade coral, preventing them from healthy growth."²⁷ ALDFG are also serious navigational hazards - when caught in propellers of ships, they compromise vessels' maneuverability and stability. These may cause delays and accidents, including some that result in the loss of the vessel, its cargo, or even its crew and passengers.²⁸

The East Asia and the Pacific region can also be expected to contribute massively to global waste generation. World Bank data from 2016 shows the region accounting for 23 % of global waste, at approximately 468 million tonnes per year. This figure is expected to increase to 714 million tonnes by 2050, still representing much of the waste that leaks into the world's oceans.²⁹

While the scale of this crisis is undoubted, accurate and up to date information on marine plastic pollution, especially from sea-based sources, is limited. The United Nations Environment Program identifies the need for baseline data on increases in plastic pollution, variations between countries, and effectivity of policies in curbing this problem.³⁰ While there have been efforts to collect the needed data and harmonize what work has already been done, these are relatively recent and largely location-specific.

The recent Global Biodiversity Outlook 5 recognizes ALDFG as a "particularly deadly form of marine waste," for at least 46 percent of the species on IUCN's Red List, which are threatened with entanglement or ingestion.

¹⁹ IPBES, Summary for policymakers of the global assessment report on biodiversity and ecosystem services, (Bonn: IPBES, 2019), 13.

²⁰ COBSEA, "Marine Litter and Plastic Pollution," COBSEA, <https://www.unep.org/cobsea/what-we-do/marine-litter-and-plastic-pollution>.

²¹ Stephanie Newman et al., "The economics of marine litter," in Melanie Bergmann, Lars Gutow, and Michael Klages (eds.), *Marine anthropogenic litter* (Cham, Springer International Publishing, 2015) cited in UNEP, COBSEA and SEI, *Marine plastic litter in East Asian Seas: Gender, human rights and economic dimensions* (Bangkok: UNEP, 2019), 30.

²² Eric Gilma, Francis Chopin, Petri Suuronen and Blaise Kuemlangan, *Abandoned, lost and discarded gillnets and trammel nets Methods to estimate ghost fishing mortality, and the status of regional monitoring and management*, (Rome: FAO Fisheries and Aquaculture Technical Paper 600, 2016), 2, <http://www.fao.org/3/i5051e/i5051e.pdf>.

²³ Graeme Macfadyen, Tim Huntington, and Rod Cappell, "Abandoned, lost or otherwise discarded fishing gear. UNEP Regional Seas Reports and Studies 185" FAO Fisheries and Aquaculture Technical Paper 523 (Rome: FAO 2009) cited in WWF, *Stop Ghost Gear - The Most Deadly Form of Marine Plastic Debris* (Gland: WWF 2020).

²⁴ Ellalyn De Vera-Ruiz, "Filipino marine scientists find more piles of plastic trash in West Philippine Sea," *Manila Bulletin*, June 18, 2021, <https://mb.com.ph/2021/06/18/filipino-marine-scientists-find-more-piles-of-plastic-trash-in-west-philippine-sea/>. Bangkok Post, "Deadliest catch: Recycling Thailand's 'ghost' fishing nets," *The Bangkok Post*, January 22, 2021, <https://www.bangkokpost.com/world/2055311/deadliest-catch-recycling-thailands-ghost-fishing-nets> (accessed 3 October 2021).

²⁵ COBSEA, "Marine Litter and Plastic Pollution," COBSEA, <https://www.unep.org/cobsea/what-we-do/marine-litter-and-plastic-pollution>.

²⁶ Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 5* (Montreal: Secretariat of the Convention on Biological Diversity 2020), 70-71 <https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf>. (accessed 3 October 2021).

²⁷ Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 5* (Montreal: Secretariat of the Convention on Biological Diversity 2020), 70-71 <https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf>. (accessed 3 October 2021).

²⁸ Graeme Macfadyen, Tim Huntington, and Rod Cappell, "Abandoned, lost or otherwise discarded fishing gear. UNEP Regional Seas Reports and Studies 185" FAO Fisheries and Aquaculture Technical Paper 523 (Rome: FAO 2009) cited in WWF, *Stop Ghost Gear - The Most Deadly Form of Marine Plastic Debris* (Gland: WWF 2020), https://wwf.org/ph/wp-content/uploads/2020/10/Stop-Ghost-Gear_Advocacy-Report.pdf, 10 (accessed 3 September 2021).

²⁹ Silpa Kaza, Lisa Yao, Perinaz Bhada-Tata, and Frank Van Woerden. 2018. "What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050." Overview booklet. World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO

³⁰ Kunal Sawarkar, "UNEP overcomes global data challenges to track and reduce marine litter," *IBM AI Blog*, August 19, 2020, <https://www.ibm.com/blogs/journey-to-ai/2020/08/toward-a-world-of-plastic-free-beaches/>. (accessed 3 October 2021)

Methodology and Structure of the Report

The research team began by conducting desk research on current legal and policy frameworks on sea-based sources of marine litter. Information was also taken from the desk research and consultations for the reports on legal guidance for marine litter for Cambodia and the Philippines. Those consultations were held with stakeholders from government agencies, civil society and non-government organizations, international and multilateral development partners. The list of stakeholders consulted is attached as **Annex A**.

The framework for this gap analysis and assessment draws from the 2019 report from UNEP and the Institute for Global Environmental Strategies (IGES) titled Strategies to Reduce Marine Plastic Pollution from Land-based Sources in Low and Middle Income Countries. This report identified strategic measures for the short, medium and long-term, as follows:

- **Short term** - Mitigate plastic waste leakage into the environment, including by preventing plastic littering, improving plastic waste collection and transportation and improving plastic disposal sites;
- **Medium term** - Increase plastic waste recover and recycling, including by introducing plastic waste separation at source and using appropriate technologies for plastics waste treatment and energy recovery; and
- **Long term** - Establish sustainable plastic production and consumer society, through eco-design and sustainable lifestyles.³¹



These three strategic time frames are further analyzed under five types of policy interventions, namely regulatory, economic, technology, data or information and voluntary.³²

This report uses this framework for an analysis of sea-based sources of marine litter. The three strategic actions are maintained but are considered as ongoing phases of work, acknowledging that policies and programs on these efforts are being developed and implemented contemporaneously. The report also considers as a cross-cutting theme for analysis the human rights and gender dimensions of the marine litter crisis.³³ A human rights-based approach compels authorities as duty bearers to prevent marine litter from causing harm, especially to human health and other human rights related to the environment. Authorities are accountable to citizens and people as rights holders.³⁴ This approach also helps ensure that related rights such as access to information, public participation, and availability of remedies are protected by the state and other stakeholders in the plastics value chain.

The five identified interventions are likewise retained, with the recognition that policy measures to address the issue of marine litter may not always fall squarely within the mandate of environmental agencies. Rather, these may also include efforts from other sectors that contribute toward each of the strategic actions.

³¹ UNEP and IGES, Strategies to Reduce Marine Plastic Pollution from Land-based Sources in Low and Middle-Income Countries. (UNEP and IGES, 2019), https://wedocs.unep.org/bitstream/handle/20.500.11822/31555/Marine_Plastic_Pollution.pdf?sequence=1&isAllowed=y.

³² Ibid. 13

³³ United Nations Environment Programme, Coordinating Body on the Seas of East Asia, and Stockholm Environment Institute, Marine plastic litter in East Asian Seas: Gender, human rights and economic dimensions. (Bangkok: UNEP, 2019).

³⁴ Ibid. 12

GAP ANALYSIS FRAMEWORK		
Focus Areas	Policy Interventions	Key Elements
Mitigate waste leakage into the environment	Regulatory	Policies that address the issue of marine litter overtly, whether these specifically pertain to solid waste management, or to the adoption of more sustainable practices in general
	Economic	Policies that prescribe fiscal incentives or disincentives, including tax or duty deductions or exemptions, penalties, levies and other charges.
Increase waste recovery and recycling	Technology	Policies that support research and development of alternative products and new technology
	Data or Information	Policies that support the updating of relevant data, establishment of baselines, and studies on emerging issues.
Creating sustainable plastic production and consumer society	Voluntary	Policies that include actions which are not obligatory, and policy language that is less prescriptive and more engaging.

The report is structured as follows: the regional analysis begins with a presentation of international conventions considered most relevant to addressing marine litter. This is followed by a discussion of international and regional partnerships, declarations and action plans to which COBSEA members-countries are involved in. A survey of national level laws and policies relevant to sea-based sources will then be presented. Using the gap analysis and assessment framework and methodology, the findings and observations, and identified gaps and barriers will be presented. Thereafter a menu of recommended actions is outlined, based on each gap and barrier identified.



2

RELEVANT INTERNATIONAL AND REGIONAL CONVENTIONS, AGREEMENTS, PARTNERSHIPS AND ACTION PLANS



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The nine COBSEA member states are Parties to most of the international Conventions considered relevant to efforts to address marine pollution. These are:

The 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) and the 1983 Protocol

The 1973 International Convention for the Prevention of Pollution from Ships (MARPOL) and its Annexes

The 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes (Basel Convention) and the 2019 amendments to Annexes II, VIII and IX (Basel Plastic Waste Amendments)

The 1982 United Nations Convention on the Law of the Sea (UNCLOS)



The table below provides an overview of which countries have ratified and/or acceded to each instrument. Additional detail on each Convention and its salient provision follows:

	Cambodia	People's Republic of China	Indonesia	Republic of Korea	Malaysia	The Philippines	Singapore	Thailand	Vietnam
London Convention and Protocol	X	/	X	/	X	/	X	X	X
MARPOL	X	/	/	/	/	/	/	X	/
BASEL	/	/	/	/	/	/	/	/	/
Basel Plastic Waste amendments	/	/	/	/	/	/	/	/	/
UNCLOS	/	/	/	/	/	/	/	/	/

Legend:

- / Country has ratified or acceded to the Convention/Protocol, and all of its Annexes and Amendments
- x Country has not ratified or acceded to the Convention/Protocol
- * Country has ratified the Convention, but has not signed on to all of its Annexes and Amendments

The 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention)

The London Convention and its subsequent 1996 Protocol (London Protocol)³⁵ seek to prevent marine pollution by explicitly prohibiting the dumping and incineration of waste, particularly from vessels, aircraft, platforms and other man-made structures at sea. The London Protocol has come to replace the Convention - it entered into force in 2006, and currently has 53 Parties. Of the nine COBSEA countries, only China, South Korea and the Philippines are parties to both the Convention and Protocol.

The London Protocol incorporates generally accepted principles of international environmental law, namely the precautionary approach and the polluter pays principle. They are likewise directed to ensure that damage is not displaced between environments, and that pollution is not transformed from one type to another.³⁶

The 1973 International Convention for the Prevention of Pollution from Ships (MARPOL)

The 1978 MARPOL absorbed its parent Convention, which had been adopted in 1973, but had not yet come into force. The combined instrument entered into force in 1983, and additional amendments adopted in 1997.³⁷ Taken together, these provide for measures to prevent marine pollution from ships, with six specific Annexes addressing pollution from oil, noxious liquid substances, harmful substances carried by the sea in packaged form, sewage garbage, and air pollution.

More particularly, MARPOL Annex III seeks to prevent pollution from harmful substances carried by sea in packaged form. These include substances identified as marine pollutants in the International Maritime Dangerous Goods Code,³⁸ which

are hazardous or pose risks to aquatic life and human health.³⁹ MARPOL Annex V on pollution from garbage from ships is optional, but is nevertheless widely accepted with 150 signatories to date.⁴⁰ Its provisions address sea-based litter squarely, with Regulation 3.1 prohibiting the disposal into the sea of all plastics, explicitly identifying synthetic ropes and synthetic fishing nets.⁴¹ Annex V is considered a “living document,” as additional guidelines for its implementation are still being adopted.⁴²

MARPOL Annex V is complemented by the International Maritime Organization’s (IMO) Action Plan to Address Marine Plastic Litter from Ships, which was adopted in 2018. This plan identifies outcomes and measures which are slated for completion by 2025, including:

- Reduction of marine plastic litter from fishing vessels, including through a possible MARPOL instrument making the marking of fishing gear with the IMO Ship Identification Number mandatory;⁴³
- Reduction of shipping’s contributions to marine plastic litter, including through a possible system for reporting and communicating the loss of shipping containers, and a possible instrument on responsibility and liability for plastic consumer goods lost at sea;⁴⁴
- Improvement of ports, including through requiring facilities for segregation of plastic waste (including fishing gear) from ships to facilitate reuse and recycling;⁴⁵
- Efforts to build public awareness, capacity building and data gathering.⁴⁶

The London Convention and its subsequent 1996 Protocol (London Protocol) seek to prevent marine pollution by explicitly prohibiting the dumping and incineration of waste, particularly from vessels, aircraft, platforms and other man-made structures at sea.

³⁵ IMO, “Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter,” <https://www.imo.org/en/OurWork/Environment/Pages/London-Convention-Protocol.aspx> (accessed 30 August 2021).

³⁶ IMO, “Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter,” <https://www.imo.org/en/OurWork/Environment/Pages/London-Convention-Protocol.aspx> (accessed 30 August 2021).

³⁷ IMO, “International Convention for the Prevention of Pollution from Ships,” [https://www.imo.org/en/About/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-\(MARPOL\).aspx](https://www.imo.org/en/About/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx) (accessed 30 August 2021).

³⁸ MARPOL, “Annex III Regulation 1.1.,” http://www.marpoltraining.com/MMSKOREAN/MARPOL/Annex_III/r1.htm.

³⁹ MARPOL, “Appendix to Annex III - Guidelines for the identification of harmful substances in packaged form,” http://www.marpoltraining.com/MMSKOREAN/MARPOL/Annex_III/app1.htm

⁴⁰ IMO, “International Convention for the Prevention of Pollution from Ships,” [https://www.imo.org/en/About/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-\(MARPOL\).aspx](https://www.imo.org/en/About/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx) (accessed 30 August 2021).

⁴¹ Per Annex V Regulation 6, the accidental loss of fishing nets might be considered an exemption, provided that reasonable precautions have been taken to prevent this

⁴² IMO, “International Convention for the Prevention of Pollution from Ships,” [https://www.imo.org/en/About/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-\(MARPOL\).aspx](https://www.imo.org/en/About/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx) (accessed 30 August 2021).

⁴³ IMO, “Resolution MEPC.310 (73) Annex 10 Action Plan to Address Marine Plastic Litter from Ships,” October 26, 2018, https://wwwcdn.imo.org/localresources/en/MediaCentre/HotTopics/Documents/IMO_marine_litter_action_plan_MEPC_73-19-Add-1.pdf, 4 (accessed 30 October 2021).

⁴⁴ *Ibid.* 5-6

⁴⁵ *Ibid.* 6

⁴⁶ *Ibid.* 8-9

The 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes

All COBSEA member states are signatories to the Basel Convention and the Plastic Waste amendments to Annexes II, VIII and IX.

The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. Parties to the Convention must ensure that transboundary movements of wastes are reduced to the minimum and consistent with environmentally sound and efficient management. Its scope of application covers a wide range of wastes, which are classified as “hazardous” based on their origin and/or composition and their characteristics. It also includes two types of wastes defined as “other wastes”—namely, household waste and incinerator ash.⁴⁷

More recently the Basel Convention is taking on one of the major sources of waste and pollution around the world—plastics. The ubiquitous transboundary movement of plastic wastes and microplastics is becoming a major concern as their property of durability makes their particles remain for long period of time—these accounts for around 10 percent of the total waste generated and constitutes approximately 90 percent of all trash floating on the ocean’s surface, with 46,000 pieces of plastic per square mile.⁴⁸ During the 14th Meeting of the Conference of the Parties to the Basel Convention in 2019, governments amended three annexes of the Basel Convention to include plastic waste in a legally-binding framework which will make global trade in plastic waste more transparent and better regulated, whilst also ensuring that its management is safer for human health and the environment.⁴⁹ The amendments become effective as of 1 January 2021 and it is up to each Party to take the necessary measures to transpose the new entries into national law.

The 1982 United Nations Convention on the Law of the Sea (UNCLOS)

The UNCLOS lays down a comprehensive regime of law and order in the world’s oceans and seas by establishing rules governing

all uses of the oceans and their resources.⁵⁰ It recognizes that all problems of ocean space are closely interrelated and as such, provides guidance on matters such as environmental control, marine scientific research, economic and commercial activities, among others. All COBSEA member states are signatories to this Convention.

Although more known for governing ocean disputes and freedom of navigation issues, the UNCLOS includes several provisions which are relevant for addressing sea-based sources of marine litter.⁵¹

Article 210 enjoins States to adopt laws and regulations to “prevent, reduce, and control pollution of the marine environment by dumping,” as well as regional and global standards and procedures to “prevent, reduce and control such pollution.”



Photo by suparat_ing on Freepik

⁴⁷ UNEP, “Basel Convention Controlling transboundary movements of hazardous wastes and their disposal,” <http://www.basel.int/TheConvention/Overview/tabid/1271/Default.aspx>.

⁴⁸ UNEP, “Actions to address Plastic Waste,” www.basel.int/Implementation/Plasticwastes/Overview/tabid/6068/Default.aspx.

⁴⁹ Greenpeace Philippines, “West trade and the Philippines: How local and global policy instruments can stop the tide of foreign waste dumping in the country”, Greenpeace, March 4, 2020, <https://www.greenpeace.org/philippines/>

[publication/4208/waste-trade-and-the-philippines-how-local-and-global-policy-instruments-can-stop-the-tide-of-foreign-waste-dumping-in-the-country/](https://www.greenpeace.org/philippines/publication/4208/waste-trade-and-the-philippines-how-local-and-global-policy-instruments-can-stop-the-tide-of-foreign-waste-dumping-in-the-country/).

⁵⁰ United Nations, “United Nations Convention on the Law of the Sea of 10 December 1982 Overview and full text”, United Nations, November 2, 2020, https://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm.

⁵¹ WWF, Tackling Marine Plastic Pollution, (Switzerland: WWF International, 2019), 5, https://d2ouvy59p0dg6k.cloudfront.net/downloads/tackling_marine_plastic_pollution___wwf_2019.pdf.

International and Regional Partnerships, Declarations and Action Plans

Likewise, most of the nine COBSEA countries are members of, or participate in, international and regional platforms that work on marine pollution, whether within particular jurisdictions or in key ecosystems. Apart from the platforms provided by COBSEA, seven of the countries (Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam) are also ASEAN Member States, while the remaining two (China and the Republic of Korea) have cooperative actions for the Yellow Sea. All the countries are likewise UN member States, and participate in programs from specialized agencies such as the UNDP, UNEP and the FAO.

UN Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA)

The GPA was created as a unique intergovernmental mechanism to counter the issue of land-based pollution.⁵² It was adopted by 108 Member States, and the European Commission at an intergovernmental conference convened in Washington, D.C., in 1995. It aims at fostering collaboration and coordination among states on the prevention of marine pollution from land-based sources.⁵³ The parties set as their common goal sustained and effective action to deal with all land-based impacts upon the marine environment, specifically those resulting from sewage, persistent organic pollutants, radioactive substances, heavy metals, oils (hydrocarbons), nutrients, sediment mobilization, litter, and physical alteration and destruction of habitat – with marine litter, nutrient management, and wastewater have been highlighted as priority source categories to be addressed.⁵⁴

The Intergovernmental Review Meeting (IGR) - a forum where governments and other stakeholders meet to review the status of the implementation of the GPA and decide on the action to be taken to strengthen its implementation - has been organized every 5 years.⁵⁵ At the 3rd IGR held in Manila in 2012, the delegated adopted the Manila Declaration on Furthering the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, which called for the establishment of the Global Partnership on Marine Litter.⁵⁶

The UN Global Programme of Action aims at fostering collaboration and coordination among states on the prevention of marine pollution from land-based sources.

Northwest Pacific Regional Action Plan on Marine Litter

Two of the COBSEA countries, namely China and South Korea, are also signatories of the Northwest Pacific Regional Action Plan on Marine Litter. This was launched in 2008, as an outcome of projects under the Northwest Pacific Marine Litter Activity, which was approved in 2005. This plan set out actions, instruments and activities geared towards three broad goals - the prevention of marine litter input into marine and coastal environments, monitoring of the quantities and distribution of marine litter and the removal of marine litter that has already been discarded, disposed of, or abandoned.⁵⁷

Litter from sea-based sources is explicitly considered. NOWPAP member countries are encouraged to undertake a number of activities to implement MARPOL Convention Annex V, develop market based instruments, such as incentives for fishermen and special fees for port wastes, and implement measures to avoid ALDFG (among others).⁵⁸

This plan was originally intended for implementation over three phases, covering 2007 to 2009. Nevertheless, the document remains extant, and is the basis for cooperation among environment ministers from China, South Korea and Japan. A joint workshop was recently held to review progress made in the plan's implementation, discuss ongoing initiatives and decide on future efforts. Forthcoming projects for the 2022 to 2023 period will include mechanisms relevant to sea-based litter, such as support for the Northwest Pacific Regional Node of Global Partnership on Marine Litter and recovery and safe disposal of sea-based litter in the region.⁵⁹

⁵² UNEP, "Governing the Global Programme of Action", UNEP, <https://www.unep.org/explore-topics/oceans-seas/what-we-do/addressing-land-based-pollution/governing-global-programme>.

⁵³ WWF, Tackling Marine Plastic Pollution, (Switzerland: WWF International, 2019), 3, https://d2ouvy59p0dg6k.cloudfront.net/downloads/tackling_marine_plastic_pollution__wwf_2019.pdf

⁵⁴ UNEP, "Governing the Global Programme of Action", UNEP, <https://www.unep.org/explore-topics/oceans-seas/what-we-do/addressing-land-based-pollution/governing-global-programme>.

⁵⁵ UNEP, "Governing the Global Programme of Action", UNEP, <https://www.unep.org/explore-topics/oceans-seas/what-we-do/addressing-land-based-pollution/governing-global-programme>.

⁵⁶ UNEP, "Manila Declaration on Furthering the Implementation of the Global Programme of Action for the Protection of

the Marine Environment from Land-based Activities, Intergovernmental Review Meeting on the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities Third session," UNEP/GPA/IGR.3/CRP.1/Rev.1.

⁵⁷ UNEP Northwest Pacific Action Plan, NOWPAP Regional Action Plan on Marine Litter. (Toyama and Busan: NOWPAP Regional Coordinating Unit 2008), 2, <https://www.cbd.int/doc/meetings/mar/mcbem-2014-03/other/mcbem-2014-03-130-en.pdf>.

⁵⁸ *Ibid.*, 9-10

⁵⁹ UNEP, 2021. "Reviewing the progress of addressing marine litter in the Northwest Pacific region." UNEP Northwest Pacific Action Plan (16 September 2021)

FAO Code of Conduct for Responsible Fisheries

The 1995 FAO Code of Conduct for Responsible Fisheries also contains a series of provisions and standards, some of which are relevant to marine litter, such as the provision of port-reception facilities; storage of garbage on board; and the reduction in abandoned, lost, or otherwise discarded fishing gear.⁶⁰ According to the introduction of the Code, “this Code sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity. The Code recognises the nutritional, economic, social, environmental and cultural importance of fisheries, and the interests of all those concerned with the fishery sector. The Code takes into account the biological characteristics of the resources and their environment and the interests of consumers and other users.”

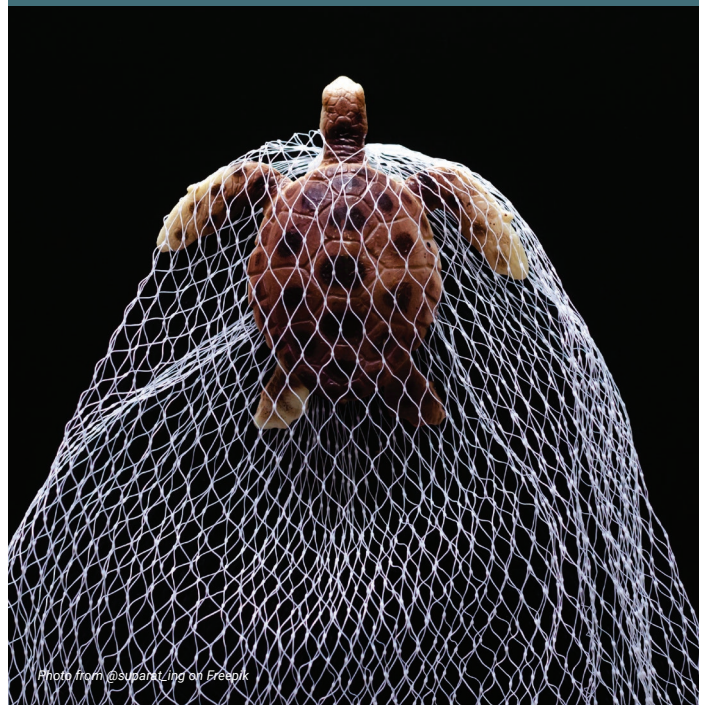
The Code provides principles and standards applicable to the conservation, management and development of all fisheries. It also covers the capture, processing and trade of fish and fishery products, fishing operations, aquaculture, fisheries research and the integration of fisheries into coastal area management.

IMO Action Plan to address marine plastic litter from ships

IMO’s Marine Environment Protection Committee (MEPC) in 2018 adopted the IMO Action Plan which aims to enhance existing regulations and introduce new supporting measures to reduce marine plastic litter from ships.⁶¹ The MEPC agreed actions to be completed by 2025, which relate to all ships, including fishing vessels. Specific identified measures include:

- A proposed study on marine plastic litter from ships;
- Looking into the availability and adequacy of port reception facilities;
- consideration of making marking of fishing gear mandatory, in cooperation with the Food and Agriculture Organization (FAO);
- promoting reporting the loss of fishing gear;
- facilitating the delivery of retrieved fishing gear to shore facilities;
- reviewing provisions related to the training of fishing vessel personnel and familiarization of seafarers to ensure awareness of the impact of marine plastic litter;
- consideration of the establishment of a compulsory mechanism to declare loss of containers at sea and identify number of losses
- enhancing public awareness; and
- strengthening international cooperation, in particular FAO and UN Environment.

1995 FAO Code of Conduct for Responsible Fisheries: This Code sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity.



⁶⁰ FAO, 1995. Code of Conduct for Responsible Fisheries. Rome: FAO.

⁶¹ International Maritime Organization, “Action Plan to Address Marine Plastic Litter from Ships RESOLUTION MEPC.310(73)”, IMO, 2018, <https://www.imo.org/en/MediaCentre/HotTopics/Pages/marinelitter-default.aspx>.

The Honolulu Strategy

The Honolulu Strategy, was adopted in 2011 as a framework document for a comprehensive and global effort to reduce ecological, human health and economic impacts of marine debris globally.⁶² It provides for 3 goals:

- **Goal A:** Reduced amount and impact of land-based litter and solid waste introduced into the marine environment;
- **Goal B:** Reduced amount and impact of sea-based sources of marine debris including solid waste, lost cargo, abandoned, lost or discarded fishing gears (ALDFG), and abandoned vessels introduced into the sea;
- **Goal C:** Reduced amount and impact of accumulated marine debris on shorelines, in benthic habitats, and in pelagic waters.



APEC Marine Debris Roadmap⁶³

This Roadmap, developed through the work of the APEC Oceans and Fisheries Working Group, was approved during the Third Senior Officials' Meeting in Puerto Varas, Chile in August 2019. It recognized marine debris as a global and multidisciplinary challenge, requiring "...collective and coordinated vision and long-term strategy with high-level endorsement." APEC noted that it will take action, based on scientific evidence and lessons learned from regional efforts, to significantly contribute to addressing this urgent issue through the following areas:

- Encouraging an APEC consolidated approach by driving policy development and coordination at every level, from regional cooperation down to local governments, across all relevant fora and agencies;
- Fostering research and innovation for the development and refinement of new methodologies and solutions for monitoring, preventing, and reducing marine debris;

- Promoting sharing of best practices and lessons learned and enhancing cooperation; and
- Increasing access to financing and facilitating private sector engagement to promote investment, trade and market creation in industries and activities that enable marine debris management and prevention.

ASEAN Bangkok Declaration on Combating Marine Debris in the ASEAN Region and Regional Action Plan for Combating Marine Debris 2021-2025

For their part, ASEAN Member States adopted these two documents to guide regional and national action on marine litter. General activities under the Regional Action Plan are expected to help build knowledge and capacities to address sea-based sources of marine plastic pollution. These include the development of a Guidebook for Common Methodologies for Assessment and Monitoring of Marine Litter, strengthening the ASEAN Regional Knowledge Network on Marine Plastics,

⁶² YSLME, Plastics and Microplastics: Understanding and Managing Marine Litter in the Yellow Sea, http://seaknowledgebank.net/sites/default/files/YSLME-Fact-Sheet-Marine-Litter-FINAL-08102020_0.pdf.

⁶³ Asia-Pacific Economic Cooperation, "APEC Roadmap on Marine Debris", Asia-Pacific Economic Cooperation, August 2019, https://www.apec.org/Meeting-Papers/Annual-Ministerial-Meetings/2019/2019_AMM/Annex-B.

and implementation of Regional Training Programs on Waste and Plastic Waste Management (among others).⁶⁴ In addition, to minimize leakage of sea-based sources of marine plastic pollution specifically, the Action Plan proposes the development of a Best Practice Manual for reducing, collecting and treating fisheries marine plastic. This is envisioned as guidance for ASEAN Member States seeking to develop waste management regulations for vessels and ports, as well as a compilation of successful examples of retrieval and marking of fishing gear, clean-up operations, and incentives for stakeholders.⁶⁵

Towards this outcome, the ASEAN Working Group on Coastal and Marine Environments was directed to coordinate the preparation of guidelines following MARPOL Annex V, with completion targeted by 2022.⁶⁶

East Asian Seas Action Plan

Applicable to a broader group of countries, the East Asian Seas Action Plan was adopted in 1981 and revised in 1994. The Coordinating Body on the Seas of East Asia (COBSEA) oversees the implementation of the Action Plan and is the sole decision-making body for the Action Plan, which focuses on environmental assessments, and development of coordinating measures.⁶⁷ Under this plan, marine litter and microplastics are an identified strategic direction, with several ongoing projects dedicated to efforts to address these concerns.⁶⁸

Specifically, the Action Plan aims to produce an assessment of the state of the marine environment that considers the effects of marine and land-based activities on environmental quality, and develop coordinating measures for the plan's successful implementation. Areas of focus include:⁶⁹

- Long-term monitoring and environmental assessment;
- Utilization and protection of marine resources;
- Development and maintenance of monitoring and environmental assessment programmes;

- Management aspects of rehabilitation of vital ecosystems and restoration of ecologically or economically important species and communities;
- Quality assurance for pollution monitoring;
- Capacity building.

The current strategic directions for 2018-2022 focus on:⁷⁰

1. Land-based pollution, including actions to address the impacts of nutrients, sediments and wastewater, and marine litter and microplastics on marine and coastal environments;
2. Marine and Coastal Planning and Management, including actions to enhance and strengthen ecosystem-based marine and coastal planning and management. These focus on using the best available scientific evidence, and expansion of Marine Protected Areas (MPAs) and MPA networks;
3. Governance, Resource Mobilization and Partnerships, to provide an effective regional policy mechanism for the coastal and marine environment.



⁶⁴ ASEAN Secretariat, ASEAN Regional Action Plan for Combating Marine Debris in the ASEAN Member States (Jakarta: ASEAN Secretariat, 2021), 35 <https://asean.org/book/asean-regional-action-plan-for-combating-marine-debris-in-the-asean-member-states-2021-2025-2/> (accessed 30 August 2021).

⁶⁵ *Ibid.* 25

⁶⁶ *Ibid.* 35

⁶⁷ UNEP, "East Asian Seas," UNEP, <https://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/east-asian> (accessed 31 August 2021).

⁶⁸ *Ibid.*

⁶⁹ UNEP, "East Asian Seas," UNEP, <https://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/east-asian> (accessed 31 August 2021).

⁷⁰ COBSEA, COBSEA Strategic Directions 2018-2022, (Bangkok: Secretariat of the Coordinating Body on the Seas of East Asia (COBSEA) and United Nations Environment Programme, 2018), <https://wedocs.unep.org/bitstream/handle/20.500.11822/30161/COBSEA2022.pdf?sequence=1&isAllowed=y>.

⁷¹ ASEAN, "East Asia Summit Leaders' Statement on Combating Marine Plastic Debris," ASEAN, November 15, 2018, <https://asean.org/east-asia-summit-leaders-statement-on-combating-marine-plastic-debris/>.

These priorities were reaffirmed in an East Asia Summit Leaders' Statement on Combating Marine Plastic Debris held in November 2018. There, leaders agreed to take concrete actions in combating marine plastic debris, including by strengthening regional and international cooperation, exploring the possible development of a regional plan of action and guidelines, and promoting efforts to support the development of relevant national action plans.

COBSEA Regional Action Plan on Marine Litter

COBSEA countries also adopted the revised Regional Action Plan on Marine Litter to guide action on marine litter in the East Asian Seas region in 2019. In doing so, they seek to consolidate, coordinate, and facilitate cooperation, and implement the necessary environmental policies, strategies and measures for sustainable, integrated management of marine litter in the East Asian Seas region.⁷²

Preventing and reducing marine litter from sea-based sources is explicitly identified as a main action.⁷³ Under this, the plan targets the development, adoption and/or implementation of legal and economic instruments that incorporate international Conventions, guidance and best practice. In addition, activities to develop and implement programs to remove and dispose of accumulated marine-based litter will also be pursued.⁷⁴

UNDP/GEF Yellow Sea Large Marine Ecosystem (YSLME) Project

The UNDP/GEF YSLME project was cooperative effort of the governments of China and South Korea, implemented in two phases from 2005 to 2009, and 2014 to 2019. The first phase supported the development of the Strategic Action Programme (SAP) for the Yellow Sea, and the multi-stakeholder Yellow Sea partnership, composed of government agencies, academic institutions, and CSOs and NGOs from both countries, as well as UN agencies and international development partners. The second phase provided assistance for the implementation of the YSLME Commission for more long-term actions.⁷⁵

The reduction of marine litter in the Yellow Sea is a target under the SAP. Identified management actions seek to control its sources, improve its removals and build public awareness on this issue. A Regional Working Group on Pollution was also established under phase II of the project, and they have since established demonstration sites and conducted research and baselining studies, as part of the project's efforts to tackle pollution.⁷⁶

Voluntary Guidelines

FAO Voluntary Guidelines on the Marking of Fishing Gear (2019)

These guidelines aim to "improve the state of the marine environment, and to enhance safety at sea by combatting, minimizing and eliminating abandoned, lost, or otherwise discarded fishing gear, and facilitating the identification and recovery of such gear."⁷⁷ This guidance proposes a gear marking system based on risk assessments, to facilitate the reporting of abandoned, lost and discarded fishing gear, its recovery, and where possible, its environmentally sound disposal;⁷⁸ with several key actions, such as:

- **Monitoring, control and surveillance arrangements at national, regional and sub-regional levels, to ensure that the marking system is enforced;**⁷⁹
- **Reporting of abandoned, lost and discarded fishing gear as a possible condition for the grant of fishing authorizations or licenses;**⁸⁰
- **Recovery of abandoned, lost and discarded fishing gear, especially where these present risks to navigation, pose adverse impacts to sensitive marine habitats, or pose an "entanglement, entrapment or ingestion threat to marine wildlife, or has a potential of ghost fishing;"**⁸¹
- **Research, awareness-raising, communication and capacity development.**

⁷² COBSEA, COBSEA Regional Action Plan on Marine Litter 2019 (Bangkok: Secretariat of the Coordinating Body on the Seas of East Asia, 2019) 4 <https://www.unep.org/cobsea/resources/policy-and-strategy/cobsea-regional-action-plan-marine-litter-2019-rap-mali> (accessed 31 August 2021).

⁷³ *Ibid.* 5

⁷⁴ *Ibid.* Appendix II

⁷⁵ YSLME, "YSLME Project," 2018, http://www.yslmep.org/?page_id=43 (accessed 20 November 2021).

⁷⁶ YSLME, "Pollution Reduction," 2018, http://www.yslmep.org/?page_id=76 (accessed 20 November 2021).

⁷⁷ FAO, Voluntary Guidelines on the Marking of Fishing Gear (Rome: FAO, 2019) xi <http://www.fao.org/documents/card/en/c/CA3546T/> (accessed 1 September 2021).

⁷⁸ *Ibid.* 7

⁷⁹ *Ibid.* 9

⁸⁰ *Ibid.* 10

⁸¹ *Ibid.* 11

FAO and IMO GloLitter Partnerships

The FAO and IMO launched the GloLitter Partnerships Project in April 2021 to promote implementation of these guidelines and the MARPOL Convention. This will support 30 developing countries, providing technical assistance, training and tools toward national efforts to “prevent and reduce marine litter from maritime transport and the fisheries sectors, including plastic litter such as lost or discarded fishing gear.”⁸²

Forthcoming Policy - Efforts toward a New Global Instrument on Marine Litter

An Ad Hoc Experts Group (AHEG) was established by the United Nations Environment Program (UNEP) in 2017 to discuss the option of a new global instrument to provide a legal framework on marine litter and microplastics.⁸³ There has been much support for the development of this agreement - Ecuador, Ghana, Vietnam and Germany co-organized a ministerial conference on marine litter and plastic pollution in September 2021 to “build momentum

and political will” leading up to the UN Environment Assembly 5.2 (UNEA 5.2) in 2022.⁸⁴

Initial talks at this event resulted in a Ministerial Statement for countries to sign on to. The document “highlights the necessity” for a new and ambitious global agreement aligned with the 2030 Agenda and Sustainable Development Goals, and identifies elements that it could contain.⁸⁵ In this, “preventive measures for both land and sea-based litter” are emphasized, as well as support for implementation in developing countries and mechanisms for monitoring, reporting and evaluation to ensure traceability and transparency.⁸⁶

Moreover, the governments of Peru and Rwanda prepared a draft resolution on an internationally legally-binding agreement on plastic pollution, for further negotiation at UNEA 5.2. Costa Rica, Ecuador, the European Union, Guinea, Norway, the Philippines, Senegal and Switzerland have signed on to co-sponsor the text. The present draft refers to all sources of marine plastic pollution together, and there are as yet no specific proposals for sea-based litter.⁸⁷

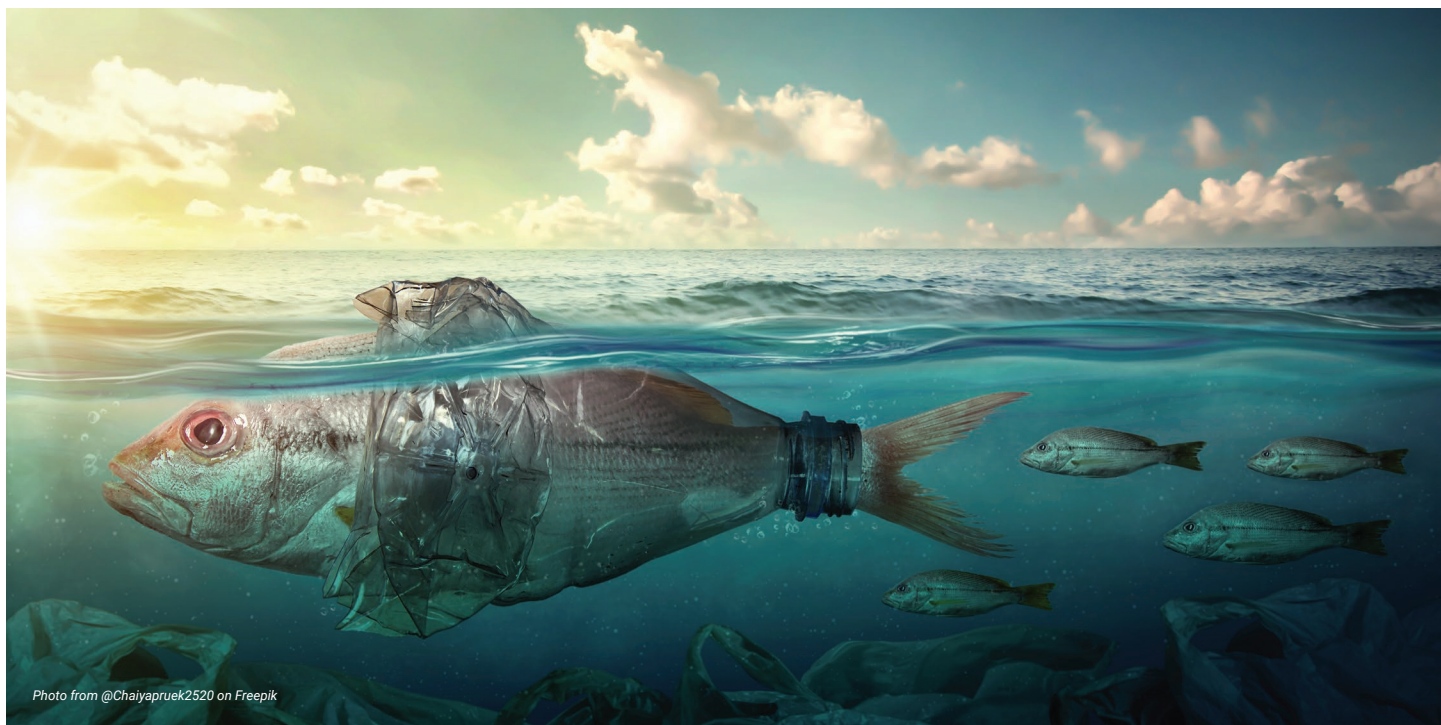


Photo from @Chaiyapruet2520 on Freepik

⁸² UN News, “New project to help 30 developing countries tackle marine litter scourge,” April 8, 2021 <https://news.un.org/en/story/2021/04/1089322> (accessed 1 September 2021).

⁸³ UNEA, “Chair’s Summary of the Work of the Ad Hoc Open-ended Expert Group on Marine Litter and Microplastics for Consideration by the United Nations Environment Assembly at its Fifth Session,” <https://wedocs.unep.org/bitstream/handle/20.500.11822/34635/K2100061.pdf?sequence=11&isAllowed=y> 1.

⁸⁴ Ministerial Conference on Marine Litter and Plastic Pollution, “Conference on Marine Litter and Plastic Pollution 1&2 September 2021 – hybrid in Geneva & online,” <https://ministerialconferenceonmarinelitter.com/home/> (accessed 30 October 2021).

⁸⁵ Ministerial Conference on Marine Litter and Plastic Pollution, “Ministerial Statement (9 September 2021)” <https://ministerialconferenceonmarinelitter.com/documents/index.php/> (accessed 30 October 2021).

⁸⁶ *Ibid.*

⁸⁷ See: Draft resolution on an internationally legally binding instrument on plastic pollution (no date) <https://ministerialconferenceonmarinelitter.com/documents/> (accessed 30 October 2021)

3

SURVEY OF NATIONAL-LEVEL LAWS AND POLICIES



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This section will provide a brief survey of national-level action of the COBSEA member countries related to marine litter. Major national laws are presented as well as national level policies. For select countries, initiatives of civil society organizations will also be discussed.

CAMBODIA - Cambodia's long coastline and its abundance of resources and ecosystems are threatened by increasing amounts of plastic pollution. The Ministry of Environment and National Council for Sustainable Development have taken steps to address this problem, including instituting a charge for plastic bags at supermarkets in 2018, and establishing a "Plastic Taskforce" to focus on policy reviews, communications and outreach and engagement with the business sector.⁸⁸

Despite these efforts, and several sub-decrees that address solid waste management and pollution, the passage of a national Environment and Natural Resources Code is expected to provide valuable policy guidance for the country. As of 2020, however, enactment of the code has stalled. Reports attribute the delay to "conflicts" between the Ministry of Environment and other relevant ministries on issues of jurisdiction and authority.⁸⁹

However, it is not clear how these existing policies and efforts will reduce and prevent sea-based litter specifically. A study spearheaded by FFI identified ALDFG as a significant contributor to this problem, with most of the litter collected from a coral reef survey consisting of discarded nets and lines.⁹⁰ To address this, they recommended that existing policies and mechanisms be "adapted to include locally appropriate measures that reduce fishing gear discards and gear use,"⁹¹ which would require strengthening stakeholder capacities and governance mechanisms.

<p>National Laws</p>	<p>The Sub-Decree on Solid Waste Management (1999)⁹² prohibits the disposal of waste in public sites (Article 7). Its Annex also lists the types of hazardous waste, which includes "plastics waste from the production or use of plasticizers," which must be stored, transported and disposed of separately from household waste (Article 15).</p> <p>The Sub-Decree on Water Pollution Management (1999)⁹³ likewise prohibits the disposal of solid waste and hazardous substances in public waters, including seas (Article 8). The Ministry of Environment is tasked with overseeing control and monitoring of sources of water pollution.</p> <p>A forthcoming Environment and Natural Resources Code is expected to serve as an overarching national framework for environmental protection and management.⁹⁴</p>
<p>National Plans and Strategies</p>	<p>The National Environment Strategy and Action Plan (2016-2023)⁹⁵ includes objectives related to improving waste management and achieving 3R targets (GMS Environment Operations Center 2017).</p> <p>The Second Urban Environmental Management in the Tonle Sap Basin Project (2018-2024)⁹⁶ seeks to improve urban environmental infrastructure in Battambang, Serei Saophoan, and Stueng Saen, around the Tonle Sap lake. Its objectives include stakeholder capacity building, and improving policies and plans to address urban drainage, wastewater, and solid waste management.</p>
<p>Foreign Funded Initiatives and Partnerships</p>	<p>The Combating Marine Plastic Litter in Cambodia Project is designed in partnership with the Government of Japan to support the Royal Government of Cambodia to implement the 4R framework (Refuse, Reduce, Reuse and Recycle) to prevent and minimize plastic waste pollution on land and in the ocean.⁹⁷</p>

⁸⁸ Ibid.

⁸⁹ Andrew Nachemson, "In Cambodia, a sweeping new environment code languishes in legal limbo" Mongabay, August 26, 2020, <https://news.mongabay.com/2020/08/in-cambodia-a-sweeping-new-environment-code-languishes-in-legal-limbo/> (accessed 9 November 2021).

⁹⁰ Fauna & Flora International, Investigating solutions to marine plastic pollution in Cambodia, (Phnom Penh, Cambodia: Fauna & Flora International, 2020), 4, https://www.fauna-flora.org/app/uploads/2020/08/FFI_2020_Investigating-Solutions-to-Marine-Plastic-Pollution-in-Cambodia_Summary.pdf (accessed 9 November 2021).

⁹¹ Ibid. 5

⁹² Sub-Decree on Solid Waste Management No. 36 ANRK.BK Unofficial Translation (version as of 25 July 2002) http://www.cambodiainvestment.gov.kh/wp-content/uploads/2011/09/Sub-Degree-36-on-Solid-Waste-Management_990427.pdf (accessed 9 November 2021).

⁹³ Sub-Decree on Water Pollution Control No. 27 ANRK.BK Unofficial Translation (version as of 13 October 2009)

http://www.vertic.org/media/National%20Legislation/Cambodia/KH_Sub-decree%20No%2027%20on%20the%20Control%20of%20Water%20Pollution.pdf (accessed 9 November 2021)

⁹⁴ Andrew Nachemson, "In Cambodia, a sweeping new environment code languishes in legal limbo" Mongabay, August 26, 2020, <https://news.mongabay.com/2020/08/in-cambodia-a-sweeping-new-environment-code-languishes-in-legal-limbo/> (accessed 9 November 2021).

⁹⁵ GMS Environment Operations Center. 2017. Cambodia's Roadmap for Sustainable Development - The National Environment Strategy and Action Plan (Bangkok: ADB 2017) https://data.opendevelopmentmekong.net/library_record/cambodia-s-roadmap-for-sustainable-development-the-national-environment-strategy-and-action-plan/resource/261591c1-406b-4db6-8e94-a5bc3e7ba61f.

⁹⁶ ADB, "Cambodia: Second Urban Environmental Management in the Tonle Sap Basin Project," ADB, <https://www.adb.org/projects/50102-002/main>.

⁹⁷ UNDP, "Combating Marine Plastic Litter in Cambodia," UNDP, <https://www.kh.undp.org/content/cambodia/en/home/projects/combating-marine-plastic-litter-in-cambodia1.html>.

CHINA - In recent years, China has made significant efforts to establish itself as a global leader in climate action and environmental sustainability. In 2017, the country banned the entry of imported foreign wastes through Implementation Plan on Banning Entry of Foreign Garbage and Reforming the Administrative System of Solid Waste Importation, or the National Sword policy.⁹⁸ A ban on SUP straws and shopping bags in major cities, which expected to ramp up to a nationwide ban on more plastic products via the Five-year Plastics Pollution Plan (2021-2025).⁹⁹ This plan also lays out the expansion of recycling efforts, promotion of plastics alternatives, addressing waste generation in agriculture and packaging and a controversial incineration target of 800,000 tons of urban plastic waste by 2025.¹⁰⁰

These policies and efforts are promising, but are likely to have unintended impacts throughout the region. Already, studies have observed that China's ban on the entry of waste imports has resulted in the diversion of these shipments to other developing countries in Southeast Asia.¹⁰¹ Moreover, according to 2019 study, China remains the world's largest generator of plastic waste, with an average person producing 18 kilograms of single use plastic waste every year.¹⁰² Addressing this through efforts such as EPR, infrastructure development and financing for improved waste collection and treatment,¹⁰³ is necessary, not only for the overall reduction of marine litter within the country, but in the region as well.

National Laws

Marine Environmental Protection Law (1982)¹⁰⁴ includes a specific chapter on marine pollution vessels, focused on "oils, oily mixtures, wastes and other harmful substances" into the sea (Article 26). Most of this chapter focuses on the discharge of substances (rather than litter per se), but there are general provisions that seek to prevent pollution from "other wastes" generated by ship building, repair and salvaging (Article 33) or marine accidents (Article 35). The law likewise calls on all vessels to report incidents of pollution at sea to Harbor Administration (Article 35). Liabilities for marine pollution can be excused for incidents that were unavoidable, despite all reasonable measures having been taken, such as natural calamities and acts of war (Article 43).

Various Administrative Regulations have subsequently been passed to supplement this law, including:

Administrative Regulations on the Control over Prevention of Pollution by Vessels in Sea Waters (1983)¹⁰⁵, which explicitly prohibits the abandonment of plastic products at sea (Article 30). Garbage from vessels likewise cannot be discarded into the waters in harbors - these must be collected and safe disposal must be coordinated with harbor authorities (Article 28).

Administrative Regulations on the Prevention and Treatment of the Pollution and Damage to the Marine Environment by Marine Engineering Construction Projects (2018)¹⁰⁶, which requires, among others, that "plastic products, residual oil, waste oil, oil-based mud, oily garbage and other toxic and harmful residues" generated by marine projects be collected in special containers and returned to land for disposal (Article 29).

Notice of the General Office of the Ministry of Agriculture and Rural Affairs on Carrying out Pollution Prevention and Control Work in Coastal Fishing Ports (2019)¹⁰⁷ seeks to improve compliance of environmental laws in fishing ports by upgrading pollution control equipment and facilities, improving monitoring and evaluation of environments around fishing ports and strengthening coordination and communication.

⁹⁸ Library of Congress, "China: National Plan on banning foreign garbage and reducing solid waste imports," August 8, 2017, <https://www.loc.gov/item/global-legal-monitor/2017-08-08/china-national-plan-on-banning-foreign-garbage-and-reducing-solid-waste-imports/> (accessed 12 November 2021).

⁹⁹ Library of Congress, "China: Single Use Plastic Straw and Bag Ban Takes Effect," March 23, 2021, <https://www.loc.gov/item/global-legal-monitor/2021-03-23/china-single-use-plastic-straw-and-bag-ban-takes-effect/> (accessed 12 November 2021).

¹⁰⁰ Kal Malloy, "China publishes five year plastics pollution plan," Resource, September 21, 2021, <https://resource.co/article/china-publishes-five-year-plastics-pollution-plan> (accessed 12 November 2021).

¹⁰¹ Amy Brooks et al., "The Chinese import ban and its impact on global plastic waste trade," *Science Advances* vol. 4, issue 6 (20 June 2018): DOI: 10.1126/sciadv.aat0131 (accessed 12 November 2021).

¹⁰² Minderoo Foundation, "The Plastic Waste Makers Index," <https://www.minderoo.org/plastic-waste-makers-index/findings/executive-summary/> 42 (accessed 12 November 2021).

¹⁰³ UNEP, et al., "Sea Circular Country Profile - China," 2020, https://www.sea-circular.org/wp-content/uploads/2020/05/SEA-circular-Country-Profile_CHINA.pdf (accessed 12 November 2021).

uploads/2020/05/SEA-circular-Country-Profile_CHINA.pdf (accessed 12 November 2021).

¹⁰⁴ People's Republic of China, "Marine Environmental Protection Law of the People's Republic of China (version as of 23 August 1982)," <http://www.asianlii.org/cn/legis/cen/laws/tmeploproc648/> (accessed 12 November 2021).

¹⁰⁵ People's Republic of China, "Administrative Regulations on the Control over Prevention of Pollution by Vessels in Sea Waters (version as of 29 December 1983)," <http://english.mofcom.gov.cn/aarticle/lawsdata/chineselaw/200211/20021100050468.html> (accessed 12 November 2021).

¹⁰⁶ People's Republic of China, "Administrative Regulations on the Prevention and Treatment of the Pollution and Damage to the Marine Environment by Marine Engineering Construction Projects (version as of 19 March 2018)," http://english.mee.gov.cn/Resources/laws/regulations/Marine_Environment/202012/t20201207_811755.shtml (accessed 12 November 2021).

¹⁰⁷ Ministry of Agriculture and Rural Affairs - People's Republic of China, "Notice of the General Office of the Ministry of Agriculture and Rural Affairs on Carrying out Pollution Prevention and Control Work in Coastal Fishing Ports (16 December 2019)," http://www.moa.gov.cn/gk/tzgg_1/tfw/201912/t20191219_6333612.htm (accessed 12 November 2021).

<p>National Laws (<i>continuation</i>)</p>	<p>Law on the Prevention and Control of Environmental Pollution by Solid Waste (revised April 2020)¹⁰⁸ in Article 5 sets out the principle of “pollution responsibility,” whereby those who “generate, collect, store, transport, utilize, and dispose of solid waste shall take measures to prevent or reduce the environmental pollution” from it, else be liable in accordance with law. Beyond this broad directive, local people’s governments are mandated to manage and supervise solid waste management within their areas of administration, through their respective departments (Article 7-9).”</p>
<p>National Plans and Strategies</p>	<p>The Bohai Sea Sustainable Development Strategy (2003)¹⁰⁹ is a comprehensive plan for the protection, preservation and restoration of the coastal across the provinces of Liaoning, Hebei and Shandong and the municipality of Tianjin. With the end of preventing and mitigating marine pollution from sea-based activities, the strategy identifies programs to control pollution from ships, offshore oil facilities and aquaculture, enhance monitoring of fishing vessels and strengthen law enforcement against ocean dumping (State Oceanic Administration 2003 60-61).</p> <p>The Action Plan to Tackle Water Pollution (2015-2030)¹¹⁰ seeks to improve the overall quality of the country’s waters. It specifies measures to address waste leakage from various sources, including ships and ports. Environmental management and law enforcement will also be strengthened to ensure the protection of waters (including marine ecosystems).</p> <p>A forthcoming Five-year Plan for the Marine Environment (2021-2025)¹¹¹ is expected by this year, and is said to include a special section dedicated to environmental issues. Area-specific plans will also be prepared for Jinzhou, Lianyungang, Shanghai and Shenzhen, which are located on the coasts of the Bohai Sea, Yellow Sea, East China Sea and South China Sea, respectively.</p>
<p>Foreign Funded Initiatives and Partnerships</p>	<p>The China Plastic Waste Reduction Project¹¹² was recently approved for a World Bank loan amounting to USD 430 million. It will support initial operationalization of the new national framework for plastic waste management in the pilot cities of Ningbo and Chongqing, and will be implemented from 2021 to 2027.</p>
<p>Civil Society Initiatives</p>	<p>The Chinese Academy of Fishery Sciences’ East China Sea Fisheries Research Institute is implementing a project on gear tracing,¹¹³ to enable monitoring of ALFDG and encourage recycling.</p>



¹⁰⁸ People’s Republic of China, “Law on the Prevention and Control of Environmental Pollution by Solid Waste (version as of 29 April 2020),” http://www.moj.gov.cn/Department/content/2020-05/06/592_3248103.html (accessed 12 November 2021).

¹⁰⁹ State Oceanic Administration, Bohai Sea Sustainable Development Strategy, http://seaknowledgebank.net/sites/default/files/bohai-sea-sustainable-development-strategy_0.pdf (accessed 12 November 2021).

¹¹⁰ The State Council - Peoples Republic of China, “China announces action plan to tackle water pollution,” 2015, http://english.www.gov.cn/policies/latest_releases/2015/04/16/content_281475090170164.htm (accessed 12 November 2021). ¹¹¹ Shi Yi, “What to expect from China’s big plan for the marine environment,” China Dialogue Ocean, August 10, 2021, <https://chinadialogueocean.net/18133-chinas-five-year-plan-for-marine-environment/> (accessed 12 November 2021).

¹¹² World Bank, “Reducing China’s Plastics Pollution,” World Bank, June 24, 2021, <https://www.worldbank.org/en/news/press-release/2021/06/24/reducing-china-s-plastics-pollution> (accessed 12 November 2021).

¹¹³ Lingyu, Kong. 2021. “How China’s fishers can help tackle ocean litter,” China Dialogue Ocean (24 September 2021) <https://chinadialogueocean.net/18708-how-chinas-fishers-can-help-tackle-ocean-litter/> (accessed 12 November 2021).

INDONESIA - In addition to its general solid waste management laws, Indonesia has recently installed policies and plans to address sea-based litter, consistent with its ambitious target of reducing marine plastic debris by 70 % by 2025. These efforts come in the wake of a 2015 study that identified the country as the second largest contributor of marine plastic waste, accounting for 10 % of the global total.¹¹⁴

Moreover, with Indonesia being both a significant global supplier of fish, and a major source of marine plastic waste,¹¹⁵ development partners and the private sector have supported local level efforts to address ALDFG, particularly through gear marking. The findings of a FAO-supported pilot study in this regard utilized the then-draft Voluntary Guidelines on the Marking of Fishing Gear, before these were finalized in 2019.

<p>National Laws</p>	<p>Environmental Protection and Management Law No. 32 (2009)¹¹⁶ - Under this law, the “quality standard of sea water” is included in considerations of overall environmental quality. Articles 53 and 54 contain broad guidance on addressing environmental pollution, including provisions on possible mitigation and restoration measures, such as provision of information on, and isolating and discontinuing of, the source of the pollution.</p> <p>Presidential Decree No. 83/2018 on Marine Debris Management sets out the National Plan of Action on Marine Plastic Debris 2017-2025¹¹⁷ - On the whole, Indonesia seeks to reduce marine plastic debris by 70 percent in 2025. Reducing sea-based leakage is one of the plan’s five main pillars. Actions in this respect will include employing technology to monitor and collect plastic debris from “ships, fishing lines and pleasure boats,” increasing public awareness and improving waste management in ports, small islands and coastal areas (Coordinating Ministry for Maritime Affairs - Republic of Indonesia, no date, 3).</p>
<p>National Plans and Strategies</p>	<p>Strategic Action Plan for Plastics Waste Reduction 2017-2025¹¹⁸ - The framework on actions for national and local government includes a broad directive to the Ministry of Marine Affairs and Fisheries to “monitor proper solid waste management” in ports and marine transportation, among others (Ministry of Environment and Forestry - Republic of Indonesia 2020 25).</p>
<p>Foreign Funded Initiatives and Partnerships</p>	<p>Food and Agriculture Organization (FAO) pilot study on gear marking of small-scale gillnet fisheries in accordance with the FAO’s Draft Guidelines on Marking of Fishing Gear (2018)¹¹⁹ - This study was conducted in Krapyak-Pekalongan and Sadeng-Yogyakarta in Java. Among its observations was the need for gear marking “to be implemented in the context of broader measures for managing fishing gear and managing fisheries in general (FAO 2018 27).” This would entail addressing concerns around “using degradable materials for the fishing gear, developing safe retrieval methods and reporting of lost gear (Ibid),” as well as additional efforts toward awareness raising, capacity building and identification of incentives.</p> <p>Agence Francaise de Developpement (AFD) project on monitoring the circulation of marine debris in Indonesia (2020)¹²⁰ - This 2 year project provides 500,000 Euro in support of the Indonesian Ministry of Maritime Affairs and Fisheries. Among other objectives, it aims to pilot a monitoring system and provide recommendations toward a recovery program for marine debris.</p>
<p>Private Sector Initiatives and Partnerships</p>	<p>Partnership between the Global Ghost Gear Initiative and Bumble Bee Seafood Company on gear marking (2020)¹²¹ - This project seeks to “implement gear marking at the manufacturer level, support the development of fishing gear recycling infrastructure, and remove lost and discarded fishing gear from marine ecosystems (Ocean Conservancy 2020).” It will initially focus on the provinces of Pekalongan and Sadeng in Java, with a view towards expanding to other areas.</p>

¹¹⁴ SEA Circular, Country Profile Indonesia, 2020, https://www.sea-circular.org/wp-content/uploads/2020/05/SEA-circular-Country-Profile_INDONESIA.pdf, citing Jambeck, J. et. al. “Plastic waste inputs from land into the ocean,” Science vol. 347, issue 6223 (2015).

¹¹⁵ Food and Agriculture Organization, Gear Marking Pilot Study in Indonesian small-scale gill net fisheries with reference to FAO’s Draft Guidelines on the Marking of Fishing Gear (Rome: FAO, 2018), <https://www.fao.org/3/BU654en/bu654en.pdf>.

¹¹⁶ Republic of Indonesia, “Environmental Protection and Management Law No. 32/2009,” October 3, 2009, <http://extwprlegs1.fao.org/docs/pdf/ins97643.pdf>.

¹¹⁷ Coordinating Ministry for Maritime Affairs - Republic of Indonesia, Executive Summary - Indonesia’s Plan of Action on Marine Plastic Debris 2017-2025 (Jakarta: Deputy for Human Resources, Science and Technology and Maritime

Culture, no date) <https://maritim.go.id/portfolio/indonesias-plan-action-marine-plastic-debris-2017-2025/>.

¹¹⁸ Ministry of Environment and Forestry - Republic of Indonesia, Strategic Action Plan for Plastics Waste Reduction 2017-2025 (Indonesia: Ministry of Environment and Forestry, 2020), <https://wedocs.unep.org/bitstream/handle/20.500.11822/32898/NPWRSI.pdf?sequence=1&isAllowed=y>.

¹¹⁹ Food and Agriculture Organization, Gear Marking Pilot Study, (Rome: FAO, 2018).

¹²⁰ Agence Francaise de Developpement, “Monitoring and modeling the circulation of marine debris in Indonesia,” AFD (no date) <https://www.afd.fr/en/carte-des-projets/monitoring-and-modelling-circulation-marine-debris-indonesia>.

¹²¹ Ocean Conservancy, “The Global Ghost Gear Initiative Announces Funding from The Bumble Bee Seafood Company for pilot project,” Ocean Conservancy, June 29, 2020, <https://oceanconservancy.org/news/global-ghost-gear-initiative-announces-funding-bumble-bee-seafood-company-pilot-project/>

MALAYSIA - Malaysia has initiated several actions aimed at reducing waste generation, especially regarding plastic wastes. The country has developed a Roadmap Towards Zero Single-use Plastic. This plan identifies several actions to be undertaken within this period of 2018 to 2030, including introduction of single-use plastic alternatives, imposition of levies on plastic products and the crafting of a Circular Economy Roadmap.¹²² National and local level regulations have also instituted bans on plastic bags and other single-use plastic products.

On marine litter specifically, Malaysia's national policies such as the Environmental Quality Act (1974) and Solid Waste and Public Cleansing Management Act (2007) specify prohibitions and penalties for the discharge of waste into ocean environments. Nevertheless, marine pollution, including from sea-based litter remains a persistent problem. A study¹²³ conducted in Darvel Bay in East Sabah, for example, found that approximately 25 % of marine litter in the area's reefs were from "ocean and waterway activities," including derelict fishing nets and lines, and other ropes (Santodomingo et al 2021 5). ALDFG has also been found in other parts of Sabah, including its national parks and protected islands.¹²⁴

National Laws	<p>Environmental Quality Act (1974)¹²⁵ - Part IV of this law explicitly prohibits and penalizes the discharge of waste into national waters, unless this is done under the conditions set by the Environmental Quality Council.</p> <p>Solid Waste and Public Cleansing Management Act (2007)¹²⁶ - Part VIII of this law prohibits the unauthorized storage, treatment and disposal of controlled solid waste, providing that these can only be undertaken by licensed facilities. If any controlled solid waste escapes from these facilities, the persons who have failed to exercise reasonable measures to prevent this loss shall be subjected to penalties.</p>
Foreign Funded Initiatives and Partnerships	<p>APEC and the Global Ghost Gear Initiative Project on Driving Solutions to Abandoned and Lost Fishing Gear in APEC Countries (2021)¹²⁷ - This project is supported by Malaysia, Thailand and the United States, and aims to develop a Best Practice Framework for the Management of Fishing Gear and an APEC-appropriate Gear Marking Compendium. A forthcoming regional workshop on ALDFG has also been announced.</p>

THE PHILIPPINES - The Philippines has a very comprehensive set of solid waste management laws and policies. The country has been an early mover in the field of environmental law, with legislation such as the Ecological Solid Waste Management Act, Clean Water Act and Revised Fisheries Code considered fairly groundbreaking for their time. While earlier solid waste management frameworks did not always explicitly distinguish between sources of pollution, forthcoming developments such as the National Plan of Action on Marine Litter, represent promising efforts to address sea-based litter specifically.

However, poor implementation of what are otherwise good environmental and natural resource laws is often cited as a significant challenge. Limited financial resources and access to technology, unavailability of baseline data and gaps in institutional and personnel capacities contribute to these difficulties,¹²⁸ and these will need to be addressed moving forward.

As such, notwithstanding its robust legal framework, the Philippines remains a major contributor to ocean plastic pollution. While much of the marine litter is comprised of single-use plastic packaging, ALDFG has also been found in clean-up operations in some of the country's critical ecosystems.

National Laws	<p>Republic Act 9003 or the Ecological Solid Waste Management Act (2000)¹²⁹ Section 48 includes a broad prohibition against littering, throwing or dumping of waste in public places. General provisions also mandate the publication of updated solid waste management data and research on solid waste management methods, impacts and technology, among others.</p>
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¹²² Ministry of Energy, Science, Technology, Environment and Climate Change - Federal Government of Malaysia, Malaysia's Roadmap toward Zero Single use Plastics 2018-2030 (Putrajaya: Ministry of Energy, Science, Technology, Environment and Climate Change, 2018) pmo.gov.my/ms/2019/07/pelan-hala-tuju-malaysia-ke-arrah-sifar-penggunaan-plastik-sekali-guna-2018-2030.

¹²³ Nadiezhdha Santodomingo et al., "Marine litter pollution on coral reefs," *Marine Pollution Bulletin* 173 (2021): <https://doi.org/10.1016/j.marpolbul.2021.112998>.

¹²⁴ Maizura Ismail, "Ghost Fishing Threatens Marine Life," *The ASEAN Post*, August 6, 2018, <https://theseanpost.com/article/ghost-fishing-threatens-marine-life> (accessed 30 October 2021).

¹²⁵ Malaysia, "Environmental Quality Act (Act No. 127) (1974)," https://www.env.go.jp/en/recycle/asian_net/Country_Information/Law_N_Regulation/Malaysia/Malaysia_mal13278.pdf.

¹²⁶ Malaysia, "Solid Waste and Public Cleansing Management Act (Act No. 672) (2007)," https://jpspn.kpkt.gov.my/resources/index/user_1/Perundangan/Akta-akta/act672bi.pdf.

¹²⁷ Global Ghost Gear Initiative, "Global Ghost Gear Initiative with APEC - Driving Solutions to Lost and Abandoned Fishing Gear in APEC Economies," PowerPoint Presentation at the 16th Ocean and Fisheries Working Group Meeting (25-26 February 2021) http://mddb.apec.org/Documents/2021/OFWG/OFWG1/21_ofwg_030.pdf. Also see: NOAA Office of Response and Restoration, "Marine Debris Program Collaborative Project on Derelict Fishing Gear in the Asia Pacific Economic Cooperation Forum," NOAA, February 15, 2021, <https://response.restoration.noaa.gov/marine-debris-program-collaborative-project-derelict-fishing-gear-asia-pacific-economic-cooperation>.

¹²⁸ Sonny Domingo and Arvie Joy Manejar, "An Analysis of Regulatory Policies on Solid Waste Management in the Philippines," Discussion Paper Series No. 2021-02 (Quezon City: Philippine Institute for Development Studies, January 2021) (accessed 26 August 2021).

¹²⁹ Congress of the Philippines, "Republic Act 9003 - An Act Providing for an Ecological Solid Waste Management Program, Creating the Necessary Institutional Mechanisms and Incentives, Declaring Certain Acts Prohibited and Providing Penalties, Appropriating Funds therefor, and for Other Purposes (26 January 2001)" <https://www.officialgazette.gov.ph/2001/01/26/republic-act-no-9003-s-2001/>.

<p>National Laws (<i>continuation</i>)</p>	<p>Republic Act 9275 or the Clean Water Act (2004)¹³⁰ prohibits a range of activities that introduce various pollutants into bodies of water. Per Section 27 of this law, prohibitions can extend to cases wherein pollutants are washed into water bodies by tides or storms or where the discharge may be due to gross negligence.</p> <p>Republic Act 10863 or the Customs Modernization and Tariff Act (2014)¹³¹ under Section 1429, prohibits the dumping of garbage or slops over the sides of a vessel within three miles from the nearest coastline.</p> <p>Republic Act 8550 (1998), later amended by Republic Act 10654 (2015)¹³² or the Philippine Fisheries Code Section 4 defines aquatic pollution as “the introduction by human or machine, directly or indirectly, of substances or energy to the aquatic environment which result or is likely to result in such deleterious effects as to harm living and non-living aquatic resources, pose potential and/or real hazard to human health, and hindrance to aquatic activities such as fishing and navigation.” This explicitly covers the dumping or disposal of waste and marine litter, including from vessels on the water.</p>
<p>National Plans and Strategies</p>	<p>The Philippine Biodiversity Strategy and Action Plan 2015-2028¹³³ includes interventions that seek to reduce pollution from aquaculture activities (DENR 2015 199).</p> <p>Forthcoming National Plan of Action on Marine Litter (NPOA) (expected 2021) - This plan is being finalized by the DENR Environmental Management Bureau, and is expected by 2021. Early versions for consultation included a list of comprehensive actions including gathering data and establishing baseline information, enhancing recovery and recycling, and a management program for sea-based litter, among others.</p>
<p>Foreign Funded Initiatives and Partnerships</p>	<p>UN Habitat Healthy Oceans Clean Cities Initiative (2021)¹³⁴ - This project is supported by the government of Japan, and will be implemented in six cities across the country, namely, Manila, Calapan, Legazpi, Ormoc, Cagayan de Oro and Davao. The NPOA is a key component of the project’s outputs - it takes off from this national strategy and seeks to localize its activities in the selected pilot areas. Data collection and management will also be prioritized.</p> <p>Korea International Cooperation Agency project on a Marine Litter Management Program for the Philippines (2021 to 2025)¹³⁵ - This project is co-implemented with the ASEAN Center for Biodiversity. Assistance will include the procurement of a vessel to collect marine litter, as well support for monitoring, capacity building and institutional development. This program was later identified as a potential area for collaboration between the Korean and United States embassies, particularly in conjunction with USAID’s Climate Resilient Cities project.¹³⁶</p>
<p>Civil Society Partnerships and Initiatives</p>	<p>NetWorks partnership managed in part by the Zoological Society of London (from 2015) works with fishing communities in Danajon Bank, Bantayan Islands and Northern Iloilo to collect discarded nets, which are eventually converted into nylon yarn for carpet manufacturers abroad.¹³⁷</p>

¹³⁰ Congress of the Philippines, “Republic Act 9275 - An Act Providing for a Comprehensive Water Quality Management and for Other Purposes (22 March 2004),” <https://www.officialgazette.gov.ph/2004/03/22/republic-act-no-9275/>.

¹³¹ Congress of the Philippines, “Republic Act 10863 - An Act Modernizing the Customs and Tariff Administration (30 May 2016),” <https://www.officialgazette.gov.ph/2016/05/30/republic-act-no-10863/>.

¹³² Congress of the Philippines, “Republic Act 8550 - An Act Providing for the Development, Management and Conservation of the Fisheries and Aquatic Resources, Integrating All Laws Pertinent Thereto, and for Other Purposes (25 February 1998),” <https://www.officialgazette.gov.ph/1998/02/25/republic-act-no-8550/>; and Republic Act 10654 - An Act to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, Amending Republic Act No. 8550, otherwise known as “The Philippine Fisheries Code Of 1998,” and for Other Purposes (27 February 2015) <https://www.officialgazette.gov.ph/2015/02/27/republic-act-no-10654/>.

¹³³ Department of Environment and Natural Resources - Biodiversity Management Bureau, Philippine Biodiversity Strategy and Action Plan 2015-2028, (Quezon City: DENR-BMB, 2016), <https://www.cbd.int/doc/world/ph/ph-nbsap-v3-en.pdf>.

¹³⁴ UN Habitat, “Healthy Oceans Clean Cities Initiative” PowerPoint presentation (no date), <https://www.unescap.org/sites/default/files/HOCCI%5B2%5D.pdf> (accessed 5 November 2021).

¹³⁵ Business Mirror, “ACB, South Korean Embassy explore partnership on marine debris pollution,” Business Mirror, May 9, 2021, <https://businessmirror.com.ph/2021/05/09/acb-south-korea-embassy-explore-partnership-on-marine-debris-pollution/> (accessed 5 November 2021).

¹³⁶ USAID, “U.S. and Korea Strengthen Development Cooperation Partnership through Joint Projects in the Philippines,” USAID May 27, 2021, <https://www.usaid.gov/philippines/press-releases/may-27-2021-us-and-korea-strengthen-development-cooperation-partnership-through-joint-projects-in-the-philippines> (accessed 5 November 2021).

¹³⁷ Laura Parker, “These Communities Turn Discarded Fishing Nets into Carpets,” National Geographic, June 13, 2018, <https://www.nationalgeographic.com/science/article/heather-koldewey-explorer-nets-plastic-philippines-ocean-culture-and-net-works-philippines> (no date) <https://net-works.com/>.

REPUBLIC OF KOREA - The Republic of Korea has a well-developed legal and policy framework for addressing marine litter. Many measures have been in place since the late 1990s, including surveys of the status of marine litter in ports and other coastal regions, designation of important fishing areas, and clean-ups of marine litter, as well as relevant legal and institutional re-arrangements.¹³⁸ These are reiterated throughout available laws and strategies, primarily implemented by the Ministries of Environment and Oceans and Fisheries.

Notwithstanding its foundation, studies observe that the Republic of Korea also has to “catch up with its steadily increasing municipal and marine plastic waste,” given that it is a significant producer and generator of single use plastics.¹³⁹ In the past, the country has exported plastic waste out to its Southeast Asian neighbors, such as Vietnam, Malaysia and the Philippines,¹⁴⁰ which may be less equipped to treat and dispose of this safely. This may soon no longer be an acceptable method for dealing with waste, including marine litter. Already, groups in the Philippines successfully lobbied for the return of 60 containers of misdeclared plastic trash, which were shipped back to Pyeongtaek City in 2020.¹⁴¹

National Laws

The **Wastes Control Act** (amended 2017)¹⁴² emphasizes that persons responsible for causing environmental pollution shall bear the costs of restoration and rehabilitation of the affected areas. It includes the discharge of waste into the sea under its definition of disposal, but refers to the Marine Environment Management Act on this matter (Article 3).

The **Marine Environment Management Act** (amended 2019)¹⁴³ includes a broad prohibition against the disposal of pollutants into the sea (Article 22). Nevertheless, Article 19 empowers the Minister of Oceans and Fisheries to collect a marine environmental improvement charge from persons who discharge garbage into the sea, and from ships or marine facilities who discharge pollutants in excess of the prescribed quantities. However, this will not apply if these were the result of natural disasters, force majeure, or (barring defects in the facilities) actions of third persons.

A 2020 **Management Act on Marine Debris and Pollutants** is likewise referenced in the Framework on Marine Debris Management.

National Strategies and Action Plans

The **Framework on Marine Debris Management (2021-2023)**¹⁴⁴ builds on the Marine Environment Act and the Management Act on Marine Debris and Pollutants introduces a deposit system on fishing gear, and seeks to increase the availability of eco-friendly alternatives that fishing boats can use. Likewise, boats to improve collection of marine litter will also be deployed.

The **Master Plan for Ocean and Fisheries Development (2021-2030)**¹⁴⁵ seeks to make “green reasonable use of oceans,” including through the greening of the shipping industry, reduction of marine waste and preservation of biodiversity. This is expected to entail improving ship filtration systems, managing the life cycles of marine wastes and requiring the use of biodegradable fishing gear.

The **Comprehensive Management Plan on Marine Litter Reduction (2019)**¹⁴⁶ seeks to reduce marine plastic litter in half by 2030 through life cycle management, enhanced infrastructure and public participation.

The **First Master Plan on Marine Spatial Management (2019-2028)**¹⁴⁷ targets an “economic and ecological balance” in the use of marine resources. Marine ecosystem services will be identified, mapped and monitored, to provide an evidence base for environmental planning and development decisions.

¹³⁸ Chang-Gu Kang, Marine Litter in the Republic of Korea, <http://marine-litter.gpa.unep.org/documents/marine-litter-Korea-Kang.pdf>.

¹³⁹ UNEP, “Sea Circular - Country Profile South Korea,” UNEP, https://www.sea-circular.org/wp-content/uploads/2020/05/SEA-circular-Country-Profile_SOUTH-KOREA.pdf (accessed 13 November 2021).

¹⁴⁰ Statista, “Leading destinations of plastic waste exported from South Korea in 2020, based on export,” Statista, 2020, <https://www.statista.com/statistics/1098279/south-korea-plastic-waste-export-destinations/> (accessed 25 November 2021).

¹⁴¹ Jigger Jerusalem, “Last batch of imported trash sent back to South Korea.” Inquirer, January 19, 2020, Inquirer.net (accessed 25 November 2021).

¹⁴² Korea, “Wastes Control Act (version as of 18 January 2017, as amended by Act. No. 14783),” https://elaw.klri.re.kr/eng_mobile/viewer.do?hseq=43284&type=part&key=39 (accessed 13 November 2021).

¹⁴³ Korea, “Marine Environment Management Act (version as of 20 August 2019, as amended by Act No. 16520),”

https://elaw.klri.re.kr/eng_mobile/ganadaDetail.do?hseq=51374&type=abc&key=MARINE%20ENVIRONMENT%20MANAGEMENT%20ACT¶m=M (accessed 13 November 2021).

¹⁴⁴ Ministry of Oceans and Fisheries, “Key Components of the 1st Framework on Marine debris Management (2021~2030),” Ministry of Oceans and Fisheries, <https://www.mof.go.kr/en/page.do?menuIdx=1480> (accessed 13 November 2021).

¹⁴⁵ Ministry of Oceans and Fisheries, “Master Plan for Ocean and Fisheries Development (2021-2030),” Ministry of Oceans and Fisheries, <https://www.mof.go.kr/en/page.do?menuIdx=1626> (accessed 13 November 2021).

¹⁴⁶ Ministry of the Environment – Japan, G20 Report on Actions against Marine Plastic Litter (2019): 98-99, https://www.env.go.jp/en/water/marine_litter/pdf/112576.pdf (accessed 13 November 2021).

¹⁴⁷ Ministry of Oceans and Fisheries, “Publishing the 1st Master Plan on Marine Spatial Management for 2019-2028,” Ministry of Oceans and Fisheries, <https://www.mof.go.kr/en/board.do?menuIdx=1491&bbIdx=30620> (accessed 25 November 2021).

SINGAPORE - In recent years, Singapore has been ramping up efforts toward sustainable management of plastic waste. National policies such as the Environmental Protection and Management Act (revised 1999), Environmental Public Health Act (revised 2002) and the Prevention of Pollution of the Sea Act (revised 1999) provide ample basis for solid waste management and pollution control in marine environments, while recent statutes such as the Resource Sustainability Act (2019) are geared towards the development of circular economies and Extended Producers Responsibility. In addition, a Zero Waste Master Plan (2019) aims to reduce the waste sent to the landfill by 30 % by 2030, and achieve a recycling rate of 70 % within the same period.¹⁴⁸

Nevertheless, marine plastic waste, including sea-based litter, often washes up on Singapore's shores. The National Environment Agency reported having collected an annual total of approximately 3,500 tonnes of marine litter in the last two years, in addition to the 1,000 tonnes collected by the Marine and Port Authority annually. Beach clean ups have also found ghost nets and household and electronic waste, in addition to plastic litter.¹⁴⁹

<p>National Laws</p>	<p>Prevention of Pollution of the Sea Act (1999)¹⁵⁰ - Part III of this law prohibits the disposal or discharge of refuse, garbage, waste matter, trade effluent, plastics or marine pollutants in packaged form from any ship in Singapore waters. However, its application to ALDFG is limited - the prohibition will not apply if the disposal or discharge is a consequence of unintentional damage to the ship, and where reasonable precautions were taken to prevent it. It also will not apply in cases of synthetic fishing nets or synthetic material to repair fishing nets, which were lost at sea, if reasonable precautions were taken to prevent the loss.</p> <p>Environmental Protection and Management Act (2002)¹⁵¹ - Part V of this law pertains to prevention and control of water pollution. Written permission is necessary before "polluting matters (among others)" can be discharged into waters, and the Director General may require violators to clean up or remove their waste, in addition to other penalties.</p>
<p>National Strategies and Action Plans</p>	<p>National Environment Agency Study on Marine Litter and Microplastics¹⁵² - This two-year study to "understand the levels and pathways of marine litter and microplastics in the waters in and around Singapore (To Ting 2021)" began in 2021.</p> <p>Forthcoming National Action Strategy on Marine Litter¹⁵³ - The Ministry of Sustainability and the Environment has begun developing the framework for this plan, which is expected by mid-2022.</p>

THAILAND - Thailand has been identified as the sixth largest contributor to global oceans plastic waste.¹⁵⁴ A 2020 study identifies several implementation challenges that contribute to this leakage, including "institutional fragmentation" and the lack of cooperation among government Ministries. Moreover, capacities of municipal governments are limited, even as they are the entities that are primarily responsible for solid waste management.¹⁵⁵

Nevertheless, the government of Thailand has announced measures to stem the country's generation of plastic waste, which often leaks into its surrounding oceans. However, announced phase outs of major single use plastic products, such as packaging and straws usually comprise waste from land-based sources.¹⁵⁶ Sea-based litter is still broadly addressed in national policies and the recent road map on plastic waste management.

<p>National Laws</p>	<p>The Enhancement and Conservation of National Environmental Quality Act, B.E. 2535 (1992)¹⁵⁷ covers a wide range of pollution issues, including water pollution and waste management. Quality standards for these matters are prescribed by the Environment Quality Board, which also approves environment quality plans from the provincial levels.</p>
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¹⁴⁸ "Singapore's inaugural Zero Waste Masterplan charts Singapore's path towards a zero waste nation." <https://www.towardszerowaste.gov.sg/zero-waste-masterplan/> (accessed 25 November 2021).

¹⁴⁹ Shabana Begum, "National framework to tackle marine litter expected to be out next year," The Straits Times, October 1, 2021, <https://www.straitstimes.com/singapore/environment/national-framework-to-tackle-marine-litter-expected-to-be-out-next-year> (accessed 20 October 2021).

¹⁵⁰ Singapore, "Prevention of Pollution of the Sea Act (version as of 1 November 2021)," <https://sso.agc.gov.sg/Act/PPSA1990?Provisds=P1III- - P1III-> (accessed 1 November 2021).

¹⁵¹ Singapore, "Environmental Protection and Management Act (version as of 2 November 2021)," <https://sso.agc.gov.sg/Act/EPMA1999?Provisds=P1V- - P1V-> (accessed 2 November 2021).

¹⁵² Toh Ting Wei, "Two-year study under way to look into marine litter and microplastics in Singapore waters," The Straits Times, August 2, 2021, <https://www.straitstimes.com/singapore/politics/parliament-two-year-study-underway-to-look-into-marine-litter-and-microplastics> (accessed 20 October 2021).

¹⁵³ Shabana Begum, "National framework to tackle marine litter expected to be out next year," The Straits Times, October 1, 2021, <https://www.straitstimes.com/singapore/environment/national-framework-to-tackle-marine-litter-expected-to-be-out-next-year> (accessed 20 October 2021).

¹⁵⁴ May Thazin Aung, "Microplastics from ocean to table," Stockholm Environment Institute, February 15, 2021, <https://www.sei.org/featured/microplastics-from-ocean-to-table/> (accessed 25 November 2021).

¹⁵⁵ Naporn Popattanachai, "The legal, policy and institutional frameworks governing marine plastics in Thailand," (Bonn: IUCN, Environmental Law Centre 2020), 15, https://www.iucn.org/sites/dev/files/thailand_scoping_study_en_10122020.pdf (accessed 25 November 2021).

¹⁵⁶ UNEP, "Collaboration to combat marine litter in Thailand," Sea Circular, June 7, 2019, <https://www.sea-circular.org/news/collaboration-to-combat-marine-litter-in-thailand/> (accessed 25 November 2021).

¹⁵⁷ Kingdom of Thailand, "Environmental Law: Enhancement and Conservation of the National Environmental Quality Act," http://www.wepa-db.net/policies/law/thailand/environmental_Law.htm (accessed 20 October 2021).

National Laws <i>(continuation)</i>	Royal Ordinance on Fisheries, B.E. 2558 (2015) ¹⁵⁸ Section 58 prohibits the pollution of fishing grounds, particularly from the release, disposal, discharge or passage of hazardous matter. Under Section 59, whether the pollution is intentional or caused by negligence, the persons responsible shall bear the expenses incurred for rescue of aquatic animals and rehabilitation of the area.
National Strategies and Action Plans	<p>The National Strategy (2018 - 2037)¹⁵⁹ is Thailand's long-term development framework in line with its Constitution. It identifies the improvement, rehabilitation and development of marine and coastal ecosystems as a strategy, and under this, recognizes the need for effective policy implementation and inspection and monitoring mechanisms, and an environmentally friendly port system.</p> <p>The Road Map on Plastic Waste Management (2018-2030)¹⁶⁰ seeks to move the country toward a circular economy by reducing plastic waste at source, reducing plastic waste consumption and putting in place measures for post-consumption management. Under this third point, developing a law on marine plastic litter is an option that is being explored</p>
Civil Society Initiatives and Projects	Net Free Seas project (2021) ¹⁶¹ collects ALDFG for recycling into house wares, and face shields, plastic screens and other necessities during the COVID-19 pandemic.

VIETNAM - A recent IUCN study found that more 40 % of waste found on 11 sites throughout the country was made up of “fishery or fishery-related products,” such as foam and plastic buoys, and nylon nets and fishing lines.¹⁶² Nevertheless, the country has undertaken comprehensive measures aimed at “reducing single use plastic, reusing and recycling products, encouraging a circular economy and green growth,” setting ambitious targets in these areas.¹⁶³

Consistent and sustained progress is necessary if they are to meet these goals. Notably, Vietnam has already made commitments to fill information gaps and establish credible baselines through marine debris monitoring, and have ensured that a dedicated MONRE International Center on Marine Plastic Debris will be on hand to see to these actions.¹⁶⁴

National Laws	<p>Law on Marine and Island Resources (No. 82/2015/QH13) (2015)¹⁶⁵ Article 45 provides for measures to control marine environment pollution from sea-based sources, including solid waste from vessels, waste from seaports, and waste found adrift at sea. Implementation of these measures falls under the mandate of the Ministry of Natural Resources and the Environment.</p> <p>Decree No. 25/2009/ND-CP on the integrated management of natural resources and environmental protection of the sea and islands (2009)¹⁶⁶ under Article 17 imposes requirements on owners of businesses and vessels to report their waste generation and waste treatment plans to state management agencies.</p> <p>The prohibited acts under the Vietnam Maritime Code (2005)¹⁶⁷ include causing environmental pollution. Sea going vessels must undertake measures to prevent marine environmental pollution, and may be monitored and inspected to ensure their compliance. Should they fail to meet the necessary conditions in this regard, the vessel may be temporarily detained.</p>
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¹⁵⁸ Kingdom of Thailand, “Royal Ordinance on Fisheries B.E. 2558 (2015) (version as of 13 November 2015),” <http://extwprlegs1.fao.org/docs/pdf/tha159730.pdf> (accessed 20 October 2021).

¹⁵⁹ Kingdom of Thailand, “National Strategy 2018-2037 (Unofficial translation),” 2018, <http://extwprlegs1.fao.org/docs/pdf/tha200834.pdf> (accessed 20 October 2021).

¹⁶⁰ Wassana Jangprajak, “National Action Plan on Plastic Waste Management in Thailand,” Powerpoint presentation delivered at the webinar workshop on strengthening capacity for marine debris reduction and waste management in the ASEAN region, 24-25 February 24-25, 2021, https://www.iges.or.jp/sites/default/files/inline-files/S1-5_PPT_Thailand%20Plastic%20Action%20Plan.pdf (accessed 25 November 2021).

¹⁶¹ AFP, “Clearing up Thailand's discarded fishing nets helps clear seas and the fight against COVID-19,” *The Straits Times*, January 22, 2021, <https://www.straitstimes.com/asia/se-asia/clearing-up-thailands-discarded-fishing-nets-help-clear-seas-and-the-fight-against> (accessed 25 November 2021).

¹⁶² UNEP, “Sea Circular - Country Profile Vietnam,” UNEP, 2021, 4, https://www.sea-circular.org/wp-content/uploads/2020/04/SEA-circular-Country-Briefing_VIETNAM.pdf (accessed 25 November 2021).

¹⁶³ IUCN, Monitoring and Assessment Programme on Plastic Litter in Vietnam Shoreline Report 2020, (Hanoi: IUCN 2021), 18, https://www.iucn.org/sites/dev/files/content/documents/2021/beach_debris_monitoring_2020_report_english_-_1_july_2021.pdf (accessed 10 November 2021).

¹⁶⁴ Tony Walker, Eamon McGuinty, and Doug Hickman, “Marine debris database development using international best practices: A case study in Vietnam,” *Marine Pollution Bulletin* vol. 173 Part A (December 2021): <https://doi.org/10.1016/j.marpolbul.2021.112948>.

¹⁶⁵ Republic of Vietnam, “Order No. 10/2015/L-CTN (version as of 8 July 2015),” <http://extwprlegs1.fao.org/docs/pdf/vie168548.pdf> (accessed 10 November 2021).

¹⁶⁶ Republic of Vietnam, “Decree No. 25/2009/ND-CP (version as of 6 March 2009),” <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC088434/> (accessed 10 November 2021).

¹⁶⁷ Republic of Vietnam, “Order No. 13/2005/L-CTN (version as of 27 June 2005),” <http://extwprlegs1.fao.org/docs/pdf/vie61969.pdf> (accessed 10 November 2021).

<p>National Laws (<i>continuation</i>)</p>	<p>Law on Environmental Protection No. 55/2014/QH13 (2014)¹⁶⁸ under Article 50 requires that hazardous waste from activities on the sea be collected, stored, transported and disposed of in accordance with national regulations. If waste is to be dumped in marine zones, their features and attributes must be taken into account before permission is given.</p>
<p>National Plans and Strategies</p>	<p>The Action Plan on Marine Plastic Waste Management in the Fisheries Sector (2020 – 2030)¹⁶⁹ seeks to reduce the plastic waste generated by the sector, move towards a circular and green economy, raise stakeholder awareness and contribute toward the national strategy on integrated solid waste management. Among its targets for 2030 is a 100 % rate of collection, sorting, reuse and treatment from plastic waste from sea-based activities, with fishing ships bringing their waste back to shore for proper disposal. This plan was developed through a partnership between the IUCN and the Vietnam Directorate of Fisheries.</p> <p>The National Action Plan for the Management of Marine Plastic Litter (2020-2030) sets ambitious targets to reduce marine plastic litter by 50 % in 2025 and 75 % by 2030, while also ensuring that all national marine protected areas are 100 % free of marine litter within the same period.</p>
<p>Foreign Funded Initiatives and Partnerships</p>	<p>IUCN Vietnam, GreenHub and other partners (2019)¹⁷⁰ collaborated on a monitoring and assessment programme of marine plastic litter along selected beaches in Marine Protected Areas. The results from this programme will provide baseline data sets for longer term monitoring.</p> <p>USAID Clean Cities Blue Ocean project (2019)¹⁷¹ is a five-year program to enhance practice of the 3Rs, support social and behavioral change and improve governance in several countries. In Vietnam, the project has already supported the conduct of a solid waste management assessment.</p>



¹⁶⁸ Republic of Vietnam, "Law No. 55/2014/QH13 (version as of 23 June 2014)," <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC168513/> (accessed 10 November 2021).

¹⁶⁹ Republic of Vietnam, "Ministry of Agriculture and Rural Development Decision No. 687/QĐ-BNN-TCTS (5 February 2021)," <https://giamracnhua.vn/wp-content/uploads/2021/03/Action-plan-on-marine-plastic-waste-management-for-fisheries-sector-2020-2030-period.pdf> (accessed 10 November 2021).

¹⁷⁰ IUCN and GreenHub, Monitoring and Assessment programme on plastic litter in Viet Nam shoreline – Report 2019 (Hanoi: IUCN, 2021), https://www.iucn.org/sites/dev/files/content/documents/2021/summary_report_2019_-_assessment_and_monitoring_litter_plastic_in_coastal_area.pdf (accessed 11 November 2021).

¹⁷¹ TetraTech, DRAFT - Initial Solid Waste Management Assessment Vietnam, https://pdf.usaid.gov/pdf_docs/PA00XWPK.pdf (accessed 11 November 2021)

4

ANALYSIS OF REGIONAL AND NATIONAL-LEVEL FRAMEWORKS



Photo by Jules Bss on Unsplash (1 March 2020)

The previous sections looked at both regional and nation-level frameworks that relate to and/or are relevant to addressing sea-based sources of marine litter. This section provides an analysis of these frameworks, in particular identifying gaps which the region and COBSEA member countries can focus on for future intervention and development. The discussion will begin with some general observations on the regional and nation-level legal frameworks. This will be followed by an analysis of the gaps and barriers using the framework presented below.

The East Asian seas region are the main focus the analysis of the barriers to addressing sea-based sources of marine litter. As such, while national-level, or even regional-level (as in the case of ASEAN) laws, policies, plans and programs are considered where relevant, gaps may still exist in terms of collaboration and coordination between and among the COBSEA member states as a whole.

General Observations

There is an increasing level of awareness on marine litter at the international and regional level.

The previous section shows the increasing number of international and regional treaties, agreements and declaration calling for increased action on marine litter, in particular on plastic waste. This provides evidence of the increasing awareness of the urgent need to strengthen and implement legal frameworks to tackle the issue. The uptick has also been happening in recent years, due perhaps to the concomitant rise in awareness of the plastic crisis in the global seas and oceans. These usually call for a coordinated strategy requiring the cooperation of different nations and organizations. The language of more recent documents and agreements have been focusing more on concrete and specific action to take at either the international and regional level, or at the national level.

General waste management laws directly or indirectly target marine litter.

All COBSEA-member countries have general waste management laws in place. These are complimented by plans, strategies, and programs to guide implementation and execution of the legal and regulatory requirements. These general waste management laws both directly and indirectly impact both land and sea-based sources of marine litter.

Some countries also have specific plans or programs of action tackling plastic waste in general (e.g., Indonesia and Korea), while

some also have specific strategies on marine litter (e.g. Korea). Some countries also have forthcoming plans and programs (e.g., the Philippines, Malaysia, Singapore).

Laws, plans, and strategies largely focus on land-based sources of marine litter.

While sea-based litter is beginning to be recognized as a significant source of marine litter, a review of regional and national-level plans shows that the overall focus of waste management efforts still largely target land-based sources.

Even in the existing marine litter plans, whether approved or pending, the focus of programs and activities are land-based sources with limited reference to specific actions on sea-based sources.



Implementation, institutional and knowledge gaps must be addressed at the national and regional level.

Capacity and knowledge gaps exist, although there is an increasing level of awareness on and inclusion of the issue in the waste management narrative. Addressing these gaps is critical. Even with emerging plans that focus on sea-based litter, if these will rely on the same infrastructure and institutions that are already bogged down with the broader challenges of solid waste management, implementation might still be limited.

In the AMS, initiatives to establish baseline data and to institute recovery measures have been project-based and location specific, limiting their scope and scale. Several gaps and barriers at the regional level are discussed below.

Human rights, especially the rights of vulnerable groups, must be given due consideration.

The social, economic and environmental costs of pollution are often borne disproportionately by vulnerable communities and sectors. These differential impacts are often not reflected in

policies and actions that seek to address the problem.¹⁷² As such, solid waste management efforts, including initiatives to address marine litter, often focus heavily on the environmental aspects of the problem at the expense of social, economic and cultural considerations. This not only risks exacerbating existing social and economic inequities, but also limits the policy or program's effectivity and long-term sustainability.

This is highlighted in a recent report from UNEP, COBSEA and SEI, which traces the path of plastics from their production, consumption, waste generation and management and eventual leakage into the ocean. By adopting a human rights-based approach in its analysis, the report is able to identify how the plastics lifecycle and continuing plastics pollution "amplifies the vulnerability of already poor and marginalized social groups, such as fisherfolk and informal waste pickers, especially women and children in these communities."¹⁷³

The report rightly observes that studies of this kind is "underexplored," and that further research is necessary to "strengthen the evidence base for more equitable and effective decision making on marine litter."¹⁷⁴



¹⁷² UNEP, COBSEA and SEI, *Marine plastic litter in East Asian Seas: Gender, human rights and economic dimensions* (Bangkok: UNEP, 2019), https://www.sea-circular.org/wp-content/uploads/2019/11/SEL_SEA-circular-1.pdf (accessed 26 August 2021)

¹⁷³ *Ibid.* 10

¹⁷⁴ *Ibid.* 11

Gaps and Barriers

Based on the analysis and on the general observations discussed above, the following have been identified as gaps and barriers in addressing sea-based sources of marine litter in the region.

Barrier/Gap	Mitigate waste leakage into the environment	Increase waste recovery and recycling	Create a sustainable plastic production and consumer society
Legal and Policy	<ul style="list-style-type: none"> Lack of a regional or internationally binding treaty on marine litter Absence of treaty banning waste imports (particularly plastics) into the region, specifically ASEAN countries 	Absence of regional policy on waste recovery and recycling	Need for a regional policy and strategy on sustainable consumption and production
Institutional	<ul style="list-style-type: none"> Absence of a permanent regional body to consolidate efforts on marine litter Limited and ad-hoc coordination between COBSEA countries (project-based) 		
Capacity, Funding, and Resource	Limited capacity of national government agencies (including local governments) to implement regional targets and programs	Limited support to research and development, and new technology	
Implementation and Enforcement	Weak implementation and enforcement national waste management laws	Lack of accessible and functional waste infrastructure, such as recycling facilities in majority of countries	<ul style="list-style-type: none"> Limited research on regional state of marine litter Lack of research to establish clear baselines in majority of countries
Political, Societal, and Cultural	Impact of regional and national politics in the implementation regional action on marine litter	<ul style="list-style-type: none"> Prevalence of throw-away/wasteful culture Weak programs to shift consumer behavior 	

Legal and Policy

Despite the presence of national-level legal frameworks which can address marine litter, there is still an absence of a legally binding commitment at the regional level which can provide better guidance and synergy at tackling the sea-based litter scourge (including clear policies on recycling, waste recovery, and circularity in general). The regional action plans and declarations are welcome developments and are steps in the right direction. However, since they are not treaties and are considered as soft-law instruments, its implementation and fulfilment are left to the discretion and capacities of the national governments.

Most if not all COBSEA countries support the passage of an international treaty on plastics. The region, perhaps through ASEAN or the COBSEA platform, can take the lead by initiating and signing a similar regional treaty, or one that tackles all forms of marine litter. The countries can also consider banning waste imports into the region, particularly of plastic waste, to reduce the potential leakage of these into the marine environment. Many COBSEA countries such as Malaysia and the Philippines have been recipients of plastic waste exports, some of which are illegal shipments. Instituting the ban can help these countries focus on better managing domestic waste.

Institutional

The current institutional set-up in the region mostly rely on ad-hoc arrangements for issue directly related to marine litter. Although there are bodies such as the ASEAN and COBSEA secretariat, these entities are not dedicated fulltime to tackling this issue. Oftentimes coordination is project or funding based, and upon completion there may be limited follow-through. A legally binding agreement as suggested above should include creating a permanent institutional body which will coordinate the implementation, both at the regional and national level, of waste management and marine litter efforts. This will ensure synergy, effective collaboration, and efficient use and sharing of resources among the countries in the region.

Capacity, Funding and Resources

As noted in this report and in other studies and analyses, many countries in the region are finding it difficult to deal with the waste crisis within their jurisdiction. This includes the challenge for local governments, who are in many cases primarily tasked with the waste management functions of the government. Given this situation,

meeting targets and goals in regional plans and declarations becomes a tall order for many COBSEA-member countries. This is also similarly true for supporting research and development for new technologies particularly in developing countries. Some COBSEA members such as Korea and Singapore may have the capacity and resources to utilize cutting-edge technologies as solutions for marine litter; but others may not have the financial and technical capacity to develop home-grown solutions to tackle marine litter.

Implementation and Enforcement

Weak implementation and enforcement at the national level makes regional action an even greater challenge. Naturally the leakage of waste and debris in the waters and oceans are the result of non-compliance with local laws and policies, both for land- and sea-based sources. This problem is compounded when looking at sea-based sources given the limited attention currently being given to this aspect of marine litter at the regional and national level. Exacting compliance with laws also needs to go hand-in-hand with ensuring reliable and accurate data on waste, and establishing the necessary waste infrastructure for recycling and disposal.

Political, Societal, and Cultural

This is perhaps the most challenging barrier to overcome when addressing sea-based sources of marine litter. In majority of countries, the general population are still of a throw-away and wasteful mind set, driven by high consumer demand from rising economies. People will prefer convenience, or whatever is made available by producers and manufacturers. Of course, many studies have shown that the waste crisis, in particular that of plastics, is high on the agenda of majority of the population. But absent the legal and policy push, and changes in consumption and production patterns, this awareness may not easily translate into concrete action.

Regional and national politics also significantly impacts concerted action on marine litter. The regional action plans are positive steps but its success will rely on the political will of the national leadership. Differences regarding other issues (e.g., human rights, boundary disputes, etc.) can also slow down the much needed action on the waste crisis and marine litter. In particular, ASEAN countries, who are a majority of COBSEA members, prides itself on regional consensus and cooperation, and will thus not take any concrete steps without the unanimous agreement. Though this has its benefits, it can also likely hamper quick decisions and decisive action at the regional level.

5

RECOMMENDATIONS FOR STRENGTHENING ACTION ON SEA-BASED SOURCES OF MARINE LITTER



A trans-boundary problem requires a trans-boundary response. These recommendations focus on actions that COBSEA member states may pursue collectively, whether as a regional group, under regional bodies like the ASEAN, or bilaterally. Some recommendations may also be relevant for national implementation, taking into account the national legal frameworks that have been analysed. The recommendations also attempt to address the identified gaps and barriers discussed above.

Gaps and Barriers	Recommendation	Key Actions
Legal and Policy	Support and eventually sign and ratify the proposed global treaty on plastics and marine litter	<ul style="list-style-type: none"> • Prepare a regional statement expressing support for the treaty and calling on the global community to ratify the same • Engage in information and education campaigns within the region to help contextualize the treaty and garner public support • Establish a specialized/technical working group on waste management in the region which will look at <ul style="list-style-type: none"> • Legal justifications to support plastic treaty and banning waste trade • Comprehensive analysis and assessment of national legal frameworks on marine litter • Conduct and lead studies on baseline of regional marine waste situation • Develop regional policies (with binding targets) on i) waste recovery and recycling; and ii) sustainable consumption and production • Create a network of regional experts on waste management and marine litter • Lead research and development on new technologies, and make it readily available to all COBSEA member-countries
	Establish a regional binding treaty on marine litter	<ul style="list-style-type: none"> • Treaty to contain binding targets and commitments per member-State • Establishment of, or identification of an existing body, to act as the permanent entity on marine litter
	Support and establish a regional treaty banning plastic waste imports Stricter regulation of waste trade	<ul style="list-style-type: none"> • Prepare a regional declaration calling for stricter regulation of global waste trade; full implementation of Plastic Amendment of the Basel Convention • Conduct studies to baseline the waste trade situation and impacts in COBSEA members countries (and others in the ASEAN region)

Gaps and Barriers	Recommendation	Key Actions
Legal and Policy <i>(continuation)</i>	Develop regional policies (including binding targets) on: i) Regional waste recovery and recycling; and ii) Regional plan on sustainable consumption and production	<ul style="list-style-type: none"> • Develop policies through the proposed specialized/ technical working group • Develop baseline studies per COBSEA member-country on: <ul style="list-style-type: none"> • Waste flows and waste characterization • Waste recovery and recycling potential • Production patterns of problematic products such as some plastics • Consumer habits which drive waste generation
	Consider sectoral impacts of sea-based litter, such as on women, indigenous peoples and the youth in coastal communities	<ul style="list-style-type: none"> • Conduct baseline studies per COBSEA member-country on sectoral impacts on vulnerable groups and coastal communities • Ensure adoption of a framework for a human-rights based approach in law and policy development for marine litter • Adopt adequate safeguards that ensure access to information, meaningful public participation, and remedies for grievances and violations of rights
Institutional	Establish a permanent regional body on waste and marine litter (ASEAN and COBSEA level via treaty)	<ul style="list-style-type: none"> • See recommendation above in relation to a regional treaty on marine litter • Ensure proper coordination and synergy of efforts with other existing bodies such as the ASEAN and COBSEA Secretariats • Ensure proportional representation and participation of all member countries <ul style="list-style-type: none"> • Make findings and proceedings are transparent, and accessible and understandable for the general public (consider translations into local languages) • Draft and approve a long term regional law and policy reform and development agenda on marine litter and other related waste issues <ul style="list-style-type: none"> • Identifying both regional and national reforms to be instituted
Capacity, Funding, Resource	Establish a regional support mechanism to improve waste management implementation in member countries	<ul style="list-style-type: none"> • Create a system and platform for regular interaction and exchange of information between country focals and expert groups • Develop model curricula and training and capacity building materials on marine litter <ul style="list-style-type: none"> • Easily adaptable for the local context, situation and existing legal framework • Target both national and local/sub-national government officials • Provide for technology transfer support and arrangements between member-countries

Gaps and Barriers	Recommendation	Key Actions
Capacity, Funding, Resource <i>(continuation)</i>	Institute a program of support for research and development on R&D	<ul style="list-style-type: none"> • Provide for technology transfer support and arrangements between member-countries • Standardize reporting of data on marine litter to establish regional and national baselines <ul style="list-style-type: none"> • Ensure coordination between focal agencies through regular interaction and exchange of information • Publicize research and data in accessible and understandable platforms
	Encourage long-term regional collaboration among universities and research institutions	<ul style="list-style-type: none"> • Utilize and strengthen academic networks such as the ASEAN University Network (AUN) • Create a roster of regional and national experts on waste management and marine litter <ul style="list-style-type: none"> • Establish mechanisms for exchange information and knowledge • Make studies, research, and data available and accessible across the region • Support collaboration for longer-term engagements to provide national governments and regional bodies with the information needed to craft data-driven and science-based policies-
Implementation and Enforcement	Regional support mechanism for implementation of waste management systems	<ul style="list-style-type: none"> • See recommendations on establishing permanent bodies and regional treaty on marine litter • Strengthen regional networks of environmental law enforcers and implementing agencies <ul style="list-style-type: none"> • Ensure coordination with and among maritime enforcement agencies
	Financing mechanism for the set-up of recycling and processing facilities	<ul style="list-style-type: none"> • Establish a financing mechanism (through a special fund) for developing waste management infrastructure in member-countries <ul style="list-style-type: none"> • Utilize existing sustainable financing plans and options • Ensure participation of private sector partners to leverage financing and investment options • Identify common regional incentives for waste infrastructure investments • See recommendation on technology support and transfer between member-countries

Gaps and Barriers	Recommendation	Key Actions
Political, Societal, and Cultural	Support for an implementation for consumer-targeted programs in relation to a sustainable consumption and production program	<ul style="list-style-type: none"> Support the development of sustainable consumption and production plans in members-countries <ul style="list-style-type: none"> Push for the passage and approval of countries with draft plans in the pipeline (e.g., Cambodia and the Philippines)
	Ensure availability of forums for regular coordination and collaboration between political leaders of member-countries	<ul style="list-style-type: none"> Ensure that marine litter and other waste issues are discussed in regional fora and meetings such as ASEAN, COBSEA, East Asian Seas program, among others Provide mechanisms wherein regional waste and marine litter issues are brought to other regional and international fora <ul style="list-style-type: none"> See recommendation for a long term regional law and policy reform and development agenda on marine litter and other related waste issues



6

CONCLUSION AND RECOMMENDATIONS FOR MOVING FORWARD

Marine litter and the wider waste crisis in the East Asian region requires concerted efforts not just at the national level, but also at the regional and international arena. Recent efforts and developments in the form of action plans, declarations, and policy formulation at the national level are all steps in the right direction. These need to be leveraged and scaled-up to ensure that the region effectively addressed sea-based sources of marine litter, within the larger context of waste management efforts.

Moving forward and taking into account the specific action points detailed in this report, the following recommendations are given:

1

An important first step is to have a **clear and definite regional response and position on the issue of marine litter**. To address the legal, policy, and institutional barriers identified above, the member countries need to agree on regionally binding treaties, and plans and strategies on recycling and waste recovery. The countries need to move beyond political and cultural differences and commit to concrete action. The recent action plans at the ASEAN and COBSEA level can serve as take-off points for these discussions. Permanent mechanisms to look at the marine litter and waste management issue at the regional level are also critical to ensure continuous and sustained action on these issues.

2

The region needs to **accelerate and strengthen cooperation and collaboration among member states on marine litter and waste management**. COBSEA countries are at varying levels of capacity and resources to deal with these issues. There needs to be a more robust and accessible regional mechanism that allows for the transfer and exchange of knowledge, expertise, skills, and information to developing countries. A critical part of this is exploring financial options to help bridge the budget gap in waste management, particularly in establishing the needed infrastructure. Equally important is ensuring that these information are understandable and accessible by the people of the region.

3

The marine litter crisis will not be solved overnight – nor will be it be solved completely within the next decade. Therefore the countries of the region need to ensure continuous dialogue and regular cooperation and collaboration among its leaders and experts. This will help create a regional effort for the implementation for consumer-targeted programs in relation to a sustainable consumption and production program. The region needs to push for a societal and cultural shift, along with legal and policy reforms, to effectively deal with the marine litter in the years to come.

ANNEX A - Agencies, Experts and Stakeholders Consulted

GOVERNMENT OFFICES

Cambodia

MoE Ministry of Environment

Philippines

DENR - BMB Department of Environment and Natural Resources - Biodiversity Management Bureau

DENR - EMB Department of Environment and Natural Resources - Environment Management Bureau

DILG - BLGS Department of Interior and Local Government - Bureau of Local Government Supervision

DTI - CPAB Department of Trade and Industry - Consumer Protection and Advocacy Bureau

DOST - ITDD Department of Science and Technology - Industrial Technology Development Division

HOR House of Representatives - Committee on Ecology

NEDA - ANRES National Economic Development Authority - Agriculture, Natural Resources and Environment Staff

CSOS, NGOS AND INTERNATIONAL DEVELOPMENT PARTNERS

ADB Asian Development Bank

Duke University Duke University Nicholas Institute for Environmental Policy Solutions

EcoWaste/IPEN EcoWaste Coalition and the International Pollutants Elimination Network

FFI Flora and Fauna International

GAIA Global Alliance for Incinerator Alternatives

GIZ Philippines Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH - Philippines

GIZ Regional Office Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH - Regional Office

GPSEA Greenpeace Southeast Asia

IDEA IDEA Consultancy Co. Ltd.

IGES Institute for Global Environmental Strategies

makesense Makesense Philippines

MEF Mother Earth Foundation

OCEANA Philippines Oceana Philippines

Pure Oceans Pure Oceans

RARE Philippines RARE Philippines

SPS Save Philippine Seas

UNEP Cambodia United Nations Environment Programme - Cambodia CounterMEASURE Plastic-free Rivers project

UP ILS University of the Philippines - Institute of International Legal Studies

WWF Norway World Wide Fund for Nature Norway

WWF Philippines World Wide Fund for Nature Philippines

WWF Regional Office World Wide Fund for Nature Regional Office



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