

Legal and Policy Guidance on Addressing Marine Litter in Cambodia

Gap Analysis and Needs Assessment





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ABBREVIATIONS

ADB	Asian Development Bank	GPA	Global Programme of Action
ALDFG	Abandoned, Lost and Discarded Fishing Gear	GR3	Third Intergovernmental Review
AMS	ASEAN Member States	IEC	Information, Education and Communication
ASEAN	Association of Southeast Asian Nations	MAFF	Ministry of Agriculture, Forestry, and Fisheries
AWGCME	ASEAN Working Group on Coastal and Marine Environment	MEF	Ministry of Economy and Finance
COBSEA	Coordinating Body on the Seas of East Asia	MOE	Ministry of Environment
CSO	Civil Society Organization	MOI	Ministry of Interior
EPR	Extended Producers Responsibility	MOWRAM	Ministry of Water Resources and Meteorology
EIA	Environmental Impact Assessment	MPA	Marine Protected Area National
EIS	Environmental Impact Statement	NESAP	National Environment Strategy and Action Plan
EMP	Environment Management Plan	NGO	Non-government Organization
FFI	Flora and Fauna International Gross Domestic Product	R and D	Research and Development
GDP	Gross Domestic Product	SEI	Stockholm Environment Institutet
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH	SLF	Sanitary Landfill
GLOC	Global Conference on Land-Ocean Connections	SUP	Single-use Plastic
GPML	Global Partnership on Marine Litter	SWM	Solid Waste Management
		TWG	Technical Working Group
		UNEP	United Nations Environment Programme
		USD	US Dollars

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 requesting assistance on tackling marine litter. This assessment has been carried out at the request of the Cambodian government through the Ministry of Environment. The main objective is to conduct a gap analysis and assessment of marine litter related legal frameworks in Cambodia, within the context of the issue in the East Seas region. The outcome is a set of recommendations on interventions for the development and/or strengthening of laws and policies on marine litter (land and sea-based sources 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.

For their part, countries in East and Southeast Asia have developed platforms for cooperation on sustainable coastal and marine management, with an increasing focus on the problem of marine litter in recent years. Notably, ASEAN Member States adopted the 2019 Bangkok Declaration on Combating Marine Debris in the ASEAN Region, as well as a subsequent Regional Action Plan for Combating Marine Debris 2021-2025, seeking to enhance international and regional coordination on

actions responding to marine plastic pollution. The 1981 East Asian Seas Action Plan also serves as a platform for regional cooperation, including on the Regional Action Plan on Marine Litter adopted in 2019.

Cambodia's natural environment faces numerous pressures from increasing rates of urbanization and industrial development. Identified threats include worsening air quality, pollution of soils and waters, and degradation of coastal and marine ecosystems due to land-based activities and shipping. Solid waste management continues to be one of the major challenges, especially with the devolution of functions to local and sub-national governments. Waste generation is increasing yearly due to a rising population and an improving economy resulting in increased spending and consumption. This problem is compounded by the lack of waste management infrastructure and inadequacy of waste facilities due to constraints in funding and manpower, and the absence of regulations for the recyclables market.


Cambodia has general waste management laws in place, with specific sub-decrees on various aspects such as plastics and regulations for cities and urban areas. Several other laws also have relevant provisions related to waste management, and indirectly on marine litter. At the local level, major cities have enacted ordinances and action plans on waste management.

An analysis of the Cambodian legal and policy framework on marine litter shows that laws and policies on waste management exist, but gaps and implementation challenges remain. It was also observed that policies still focus on traditional waste management and have not yet moved to a more circular approach. However, there are important efforts in the pipeline that need to be harmonized with an overall government strategy and approach.

The following table summarizes legal and policy gaps and barriers which need to be addressed in order to effectively tackle marine litter. The report also presents a comprehensive list of recommended actions to address the gaps, remove the barriers and help the country in its efforts at addressing marine litter.

	Mitigate waste leakage into the environment	Increase waste recovery and recycling	Create a sustainable plastic production and consumer society
Barrier/Gap			
Legal and Policy	<ul style="list-style-type: none"> Lack of national strategy on waste management Gaps in current legal and policy frameworks 	<ul style="list-style-type: none"> No science based national targets on waste recovery and recycling Lack of incentives and support for investments in waste recovery and recycling facilities 	<ul style="list-style-type: none"> Pending circular economy and other strategies Lack of clear and viable upstream policies
Institutional	<ul style="list-style-type: none"> Overlapping mandates and sectoral plans Unclear devolution of mandates and responsibilities of local governments Lack of coordination between government and other stakeholders 		
Capacity, Funding, and Resource	<ul style="list-style-type: none"> Limited capacity of national government agencies Limited capacity and resources of local governments for devolved functions 	<ul style="list-style-type: none"> Limited support to research and development, and new technology 	
Implementation and Enforcement	<ul style="list-style-type: none"> Weak policy implementation and enforcement 	<ul style="list-style-type: none"> No formal recycling infrastructure and reliance on informal waste sector 	
	<ul style="list-style-type: none"> Lack of research to establish clear baselines 		
Political, Societal, and Cultural	<ul style="list-style-type: none"> Lack of political will to apply cross-sectoral implementation and move away from "compartmentalized institutional arrangements" Non-recognition and formalization of waste sector workers 	<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, a critical first step is to address the legal, policy and institutional barriers in the short-term. The government should continue its efforts at improving implementation and enforcement of existing laws and regulations. Current efforts towards a more sustainable and circular economy should be mainstreamed and pushed across all sectors of government and society. Lastly, in implementing these recommendations and action points, the government must ensure respect for people's human and environmental rights at all times, with particular consideration for the informal waste sector.

An aerial photograph of a coastline, likely in Southeast Asia, showing a large area of white foam or debris in the water. The water is dark blue-green, and the land is visible on the right side. The foam appears to be a large accumulation of marine litter or a natural phenomenon like a sea stack. The text is overlaid on the lower left portion of the image.

This report is part of a series of assessments conducted 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 requesting assistance on tackling marine litter. This report has been initiated at the request of the Cambodian government through the Ministry of Environment. The main objective was to conduct a gap analysis and assessment of marine litter related legal frameworks in the Cambodia, within the context of the issue in the East Seas region. The outcome is a set of recommendations on interventions for the development and/or strengthening of laws and policies on marine litter (land and sea-based sources with a focus on plastics), to align with global efforts and best practices on the issue.

1 INTRODUCTION



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A. The Marine Litter Crisis

The recently concluded United Nations Environment Assembly (UNEA4) 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 degradation,² 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% is comprised of plastic waste.⁵ Plastics are the largest, most harmful and most persistent fraction of marine litter, accounting for at least 85% 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%

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% of this waste is recycled, with almost half at disposed of in landfills.⁹

Significant efforts have been initiated at the international, regional and national levels to address this problem. With the United Nations Environment Programme (UNEP)'s assistance, Member States have initiated work on a new global agreement or instrument

¹ See: 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/xmlui/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 See 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. (Washington DC: World Bank 2018) <https://openknowledge.worldbank.org/handle/10986/30317>. License: Creative Commons Attribution CC BY 3.0 IGO. CHECK FOOTNOTES FORMAT

⁵ Krushelnyska, Olha. 2018. Solving Marine Pollution: Successful models to reduce wastewater, agricultural runoff, and marine litter (Washington DC: World Bank 2018) <https://documents1.worldbank.org/curated/en/651521537901259717/pdf/130154-WP-PUBLIC-SolvingMarinePollution.pdf>

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

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

⁸ Kaza et. al. (2018) 28

⁹ Ibid. 39

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
- Legal and illegal dumping at sea
- Abandoned, lost, discarded fishing gear
- Natural disasters

Source: Krushelnytska (2018)

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 are recognized as the main cause of 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% of the global particle count, while macroplastics account for around 90% 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. On the other hand, production and consumption patterns in the developed world increase the likelihood of waste being shipped to developing countries. 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."¹⁶

¹⁰ See for example <https://www.plasticpollutiontreaty.org/>

¹¹ Global Partnership on Marine Litter (2020) 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

¹³ UNEP (2019) 1.

¹⁴ Eriksen et al. 2014 "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) <https://doi.org/10.1371/journal.pone.0111913>

¹⁵ Krushelnytska (2018) 7.

¹⁶ UNEP (2019). 1.

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 and policies:** 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 generating larger percentages of inorganic wastes such as plastics.

All these factors considered, the East Asian region can be seen as a crucial region for tackling the marine litter and plastic waste crisis. 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 region retaining the top spot.¹⁸ Statistics also show that East Asia and the Pacific region will continue to dominate global waste that leaks into the world's oceans.¹⁹

B. ASEAN and East Asia Efforts on Marine Litter

For their part, countries in East and Southeast Asia have developed platforms for cooperation on sustainable coastal and marine management, with an increasing focus on the problem of marine litter in recent years. Notably, ASEAN Member States adopted the 2019 Bangkok Declaration on Combating Marine Debris in the ASEAN Region, as well as a subsequent Regional Action Plan for Combating Marine Debris 2021-2025, seeking to enhance international and regional coordination on actions responding to marine plastic pollution.²⁰ The 1981 East Asian Seas Action Plan also serves a platform for regional cooperation, including on the Regional Action Plan on Marine Litter adopted in 2019.

These regional efforts that relate to marine litter are described in detail below.

East Asian Seas Action Plan

The East Asian Seas Action Plan was adopted in April 1981 and revised in 1994.²¹ The Coordinating Body on the Seas of East Asia (COBSEA) that oversees the implementation of, and is the sole decision making body for, the Action Plan.

Specifically, the Action Plan aimed at assessing 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:²²

¹⁷ ORA, 2010 cited in Krushelnyska (2018).

¹⁸ See 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.

¹⁹ See: Kaza et. al. (2018)

²⁰ ASEAN Regional Action Plan for Combating Marine Debris in the ASEAN Member States (2021-2025) SUMMARY, 2021 available at https://asean.org/storage/FINAL_210524-ASEAN-RAP-Summary_Ready-to-Publish_v1.pdf (accessed 14 July 2021)

²¹ See: <https://wedocs.unep.org/bitstream/handle/20.500.11822/29052/AP94.pdf?sequence=1&isAllowed=y>

²² UNEP. no date. "East Asian Seas." <https://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/east-asian#:~:text=Aimed%20at%20protecting%20the%20East,adopted%20in%20Apr%201981%20and>

- 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:²³

1. **Land-based pollution**, including actions to address the impacts of nutrients, sediments and wastewater, and marine litter and micro-plastics 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 in the COBSEA region.
3. **Governance, Resource Mobilization and Partnerships**, to provide an effective regional policy mechanism for the coastal and marine environment.

These priorities were reaffirmed in an East Asia Summit Leaders' Statement on Combating Marine Plastic Debris held in November 2018. Here, 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.²⁴

Global Partnership on Marine Litter

The Global Partnership on Marine Litter (GPML)²⁵ was launched at the United Nations Conference on Sustainable Development (Rio+20) in June 2012. This was done in response to a request set out in the Manila Declaration on Furthering the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities.

The partnership is led by a Steering Committee, with UNEP serving as its secretariat.²⁶ The GPML provides a platform for cooperation and coordination, knowledge sharing and assessment, and collaboration between the private sector, civil society and NGOs and regional bodies to work towards reducing the leakage of plastics into the oceans, encouraging circular production cycles and minimizing waste generation.

Manila Declaration on Furthering the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities

The Manila Declaration was adopted by 381 government delegates to the Global Conference on Land-Ocean Connections (GLOC) and the Third Intergovernmental Review (IGR3) Meeting on the Implementation of the Global Programme of Action (GPA) for the Protection of the Marine Environment in 2012.²⁷

It was slated for implementation from 2012 to 2016, with 16 provisions seeking to contribute to the GPA's priority areas, particularly as regards marine litter, wastewater, pollution from fertilizer and biodiversity loss. Delegates also agreed to improve cooperation and coordination at all levels in dealing with issues related to oceans, coasts, islands and their associated watersheds. Integrated management, such as through "ridge to reef" approaches, were encouraged, in addition to continuous implementation of global and regional arrangements, agreements and programs for the protection of the marine and coastal environment.

²³ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/30161/COBSEA2022.pdf?sequence=1&isAllowed=y>

²⁴ ASEAN. 2018. "East Asia Summit Leaders' Statement on Combating Marine Plastic Debris" (18 November 2018) <https://asean.org/east-asia-summit-leaders-statement-on-combating-marine-plastic-debris/>

²⁵ Global Partnership on Marine Litter. no date. "Who we are." <https://www.gpmlitter.org/>

²⁶ <https://www.unep.org/explore-topics/oceans-seas/what-we-do/addressing-land-based-pollution/global-partnership-marine>

²⁷ Official Gazette of the Republic of the Philippines. 2012. "International community adopts Manila Declaration for protection of marine environment" (27 January 2012) <https://www.officialgazette.gov.ph/2012/01/27/international-community-adopts-manila-declaration-for-protection-of-marine-environment/>

COBSEA Regional Action Plan on Marine Litter

At the 24th Intergovernmental Meeting of the COBSEA in June 2019, participating countries adopted the revised Regional Action Plan on Marine Litter to guide action on marine litter in the East Asian Seas region.²⁸ The overall goal of the COBSEA Regional Action Plan on Marine Litter is 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.

ASEAN Joint Declaration on Hazardous Chemicals and Wastes Management

In 2017, the ASEAN Member States (AMS) agreed to strengthen their cooperation and coordination towards the establishment of environmentally sound systems for the management of hazardous chemicals and wastes, including through measures in waste prevention, reduction, reuse, recycling and recovery.²⁹ It included a call to establish networks between the AMS to improve the supervision of trade in hazardous chemicals and wastes, and enhance information exchange to prevent the illegal traffic of these wastes into the ASEAN territory.

ASEAN Working Group on Coastal and Marine Environment (AWGCME)

The AWGCME was established to foster the conservation and sustainable management of coastal and marine ecosystems while highlighting their importance as resources of livelihood for the ASEAN region. It is mandated to ensure that ASEAN's coastal and marine environment are sustainably managed; representative ecosystems, pristine areas and species are protected; economic activities are sustainably managed; and public awareness of the coastal and marine environment instilled. It also acts as a

consultative forum to promote coordination and collaboration among relevant ASEAN and other regional marine-related initiatives.³⁰

The working group's program areas are:

- Key Coastal and Marine Area Conservation;
- Tanker Desludging and Oil Spill Reduction;
- Endangered Coastal and Marine Species Conservation;
- Coastal and Marine Pollution Mitigation;
- ASEAN CSR Network Proposal on Multi-Stakeholder Partnerships to Tackle Marine Plastics;
- Coastal and Marine Invasive Alien Species;
- Climate Change Issues and Impacts in Coastal Areas and
- Integrated Coastal Management and Marine Spatial Planning.

Bangkok Declaration on Combating Marine Debris in the ASEAN Region

ASEAN member states adopted this Declaration in 2019. They committed to strengthen national-level and collaborative actions to prevent and reduce marine debris, particularly from land-based activities.³¹

More recently, in May 2021, the ASEAN Regional Action Plan for Combating Marine Debris was also launched.³² Drawing from inputs from the AMS and other regional stakeholders, the Regional Action Plan proposes an integrated approach to address marine plastic pollution in the region over the next five years, or from 2021-2025. Fourteen actions are identified for key stages of the value chain, with the end of reducing inputs into the system, enhancing collection and minimizing leakage, and creating value for waste reuse.³³

28 COBSEA. 2019. Regional Action Plan on Marine Litter (Bangkok: UNEP and COBSEA 2019) <https://www.unep.org/cobsea/resources/policy-and-strategy/cobsea-regional-action-plan-marine-litter-2019-rap-mali>

29 ASEAN Joint Declaration on Hazardous Chemicals and Waste Management (26 April 2017) https://asean.org/wp-content/uploads/2017/11/Annex-2_Joint-Declaration-HCWM-Adopted-by-AMME.pdf

30 ASEAN. no date. "ASEAN Cooperation on Coastal and Marine Environment." <https://environment.asean.org/awgcme/>

31 ASEAN. Bangkok Declaration on Combating Marine Debris in the ASEAN Region (22 June 2019) <https://asean.org/bangkok-declaration-on-combating-marine-debris-in-asean-region/>

32 ASEAN. 2021. ASEAN Regional Action Plan for Combatting Marine Debris in the ASEAN Member States (Jakarta: ASEAN Secretariat 2021) https://asean.org/wp-content/uploads/2021/05/FINAL_210524-ASEAN-Regional-Action-Plan_Ready-to-Publish_v2.pdf

33 ASEAN. 2021. ASEAN Regional Action Plan for Combatting Marine Debris in the ASEAN Member States (Jakarta: ASEAN Secretariat 2021) https://asean.org/wp-content/uploads/2021/05/FINAL_210524-ASEAN-Regional-Action-Plan_Ready-to-Publish_v2.pdf

C. Report Methodology

The research team extensively coordinated with national focal point agencies in Cambodia. Aside from desk research, 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.³⁴

These three strategic time frames are further analysed under five types of policy interventions, namely **regulatory, economic, technology, data or information and voluntary**.³⁵

This report builds on this framework by expanding its scope to both land and 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.³⁶ 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.³⁷ 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, as additional frameworks for analysis, 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.

³⁴ UNEP and IGES. 2019. *Strategies to Reduce Marine Plastic Pollution from Land-based Sources in Low and Middle Income Countries*. 13. https://wedocs.unep.org/bitstream/handle/20.500.11822/31555/Marine_Plastic_Pollution.pdf?sequence=1&isAllowed=y

³⁵ Ibid. 13

³⁶ The report takes guidance from United Nations Environment Programme, Coordinating Body on the Seas of East Asia, and Stockholm Environment Institute, 2019. *Marine plastic litter in East Asian Seas: Gender, human rights and economic dimensions*. Bangkok: UNEP.

³⁷ Ibid. 12

GAP ANALYSIS FRAMEWORK: ■ FOCUS AREAS | ■ POLICY INTERVENTIONS | ■ KEY ELEMENTS

Guide questions were developed for each focus area and policy intervention, to better inform the data gathering and analysis. These questions are attached for information in **Annex B**.

	Mitigate waste leakage into the environment
	1. 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
	2. 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
	3. Technology
	Policies that support research and development of alternative products and new technology.erging issues.
	4. 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
	5. Voluntary
	Policies that include actions which are not obligatory, and policy language that is less prescriptive and more engaging.

Based on this analytical framework, the report is structured as follows: the country analysis begins with an overview of the socio-economic and environmental context, including relevant solid waste management statistics. This is followed by a discussion on the national legal framework, and national action plans and programs related to solid waste management and marine litter. Using the gap analysis and assessment framework and methodology, the findings and observations are presented along with an assessment of the gaps and barriers identified. Thereafter a menu of recommended actions is outlined, based on each gap and barrier identified.

2 Cambodia



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Socio-Economic and Environmental Context

In 2020, statistics estimates of Cambodia's population are at 16,718,971 persons, with approximately 24% of this total residing in urban areas.³⁸ Data on national poverty is less current - the latest available figures from a 2012 report show the poverty incidence at 17.7% of the population.³⁹

Cambodia is undergoing rapid development with an average growth in GDP of 7% per annum and one of the fastest rates of improvement in the global Human Development Index.⁴⁰ However, due to the COVID-19 pandemic, the country's GDP contracted by 3.1% in 2020. The service industry contributes the most to the GDP, with the sector accounting for 38% of the total. The industrial and agricultural sectors comprise of 29% and 26%, respectively.

Cambodia's natural environment faces numerous pressures from increasing rates of urbanization and industrial development. Identified threats include worsening air quality, pollution of soils and waters, and degradation of coastal and marine ecosystems due to land-based activities and shipping.⁴¹

Solid Waste Management Statistics

A recent study of Cambodia's overall solid waste management system proposes this informative overview:⁴²

"Management of municipal solid waste (MSW) is a major challenge in cities of Cambodia. Overall responsibility for waste management has rested with municipality and district authorities and private operators. Providing waste services is a major challenge for both the public and private sectors due to the increasing waste volume and low service quality. While several strategies, regulations, and policy have been introduced for efficient municipal solid waste management (MSWM) in Cambodia, their performance level, practices and motivation level have not been critically investigated."

³⁸ World Bank, World Bank Open Data, <https://data.worldbank.org/>

³⁹ World Bank, "Poverty headcount ratio at national poverty lines," <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=KH>.

⁴⁰ UNDP. (2019) Human Development Report Inequalities in Human Development in the 21st Century - Cambodia [Online]. Available from: <http://hdr.undp.org/en/data>

⁴¹ Kingdom of Cambodia, Sixth National Report to the Convention on Biological Diversity (2019) https://asean.chm-cbd.net/sites/acb/files/2020-04/6NR_KHM.pdf, 32.

⁴² See Vin Spoann & Takeshi Fujiwara (2020). Solid Waste Management Politics: Reforming Legal and Institutional Frameworks for Sustainable Waste Management in Cambodia. in KAS (2020). Contemporary Environmental Law in Cambodia and Future Perspectives.

Data from 2015 cited in a recent analysis from Flora & Fauna International (FFI) and UNEP estimates Cambodia's national waste generation at 4 million tons per year.⁴³ Further data from 2017 pegs the country's annual plastic waste generation at 730,000 tons of plastic waste, with 48% of this total "illegally disposed of into waterways or burned in open areas."⁴⁴ Coastal debris density and characterisation studies carried out at Sihanoukville (2018) found that plastic was the most commonly logged debris type, making up 81% of debris collected.⁴⁵ The tourism industry is a major contributor to this plastic waste, disposing of 4.6 million plastic bottles on a monthly basis.⁴⁶ As UNDP puts it:

"In today's Phnom Penh, plastic waste amounts to more than 20% of the total volume of municipal waste (3,600 tons) generated per day, putting immense pressure on waste management services. In urban areas, illegally dumped plastic waste blocks waterways, clogs sewage and drainage systems, and elevates flood risks. In areas without waste collection services, plastic waste is often burned in the open air or disposed of at informal dumpsites, on streets, or into local waterways, which carry it to the sea. The burning of plastics releases harmful chemicals which pose serious risks to public health. In coastal areas, the impact of plastic waste on the tourism industry is particularly significant. Plastic waste makes up 80% of the debris found on Cambodia's beaches, deteriorating coastal areas' natural environment, marine ecosystems, and scenery."⁴⁷

Statistics on the disposal of this waste varies. A study cited in the FFI and UNEP's report estimates that 87% of all Cambodia's waste is mismanaged - either burned, dumped, or buried. Only 11% is said to be recycled, although it is acknowledged that the actual figure may be much less than this.⁴⁸ Cambodia does not yet have the infrastructure, technologies or human resources to adequately collect and treat waste, and interventions such as recycling remain largely unexplored and/or are limited by systemic deficiencies.⁴⁹ There is heavy reliance on informal

waste sector workers, known as ecchay, and anecdotal evidence suggests the ecchay (estimated to number at 3000 nationwide and comprised of those coming from the urban poor and employing those from the vulnerable sector like women and children) form part of large waste trading networks that transport recyclables to Thailand and Vietnam for sale.⁵⁰



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43 World Bank. Cambodia: solid waste and plastic management improvement plan (2020) cited in FFI and COBSEA. Marine Litter in Cambodia: A Situation Analysis & Policy Recommendations (pre-final draft). (Bangkok: UNEP, 2021) 16.

44 Sea Circular. Country Profile CAMBODIA (2020) cited in FFI and COBSEA (2021) 16

45 FFI and COBSEA (2021) 21.

46 E. McCormick, "Saying NO to Plastic Bottles." Khmer Times (15 March 2019) cited in FFI and COBSEA (2021) 16.

47 UNDP Cambodia (2020). Urgent action is required to tackle marine plastic litter.

48 GGGI. Scaling up waste recycling in Battambang City (2020) cited in FFI and COBSEA (2021) 16

49 FFI and COBSEA (2021) 16 and 31

50 Ibid.

National Regulatory Framework

Cambodia has in place the basic and general national regulatory framework for waste management in the form of national laws and its various sub-decrees and guidelines. There are also several other laws which indirectly relate to waste and environmental protection. However, most of the provisions are basic and do not provide essential details for full implementation and enforcement. There is also limited direct intervention on the issue of marine litter specifically, although existing provisions can be interpreted to deal with this issue.

Several national policies provide overall guidance and strategic direction for environmental protection and management, sustainable development. However, it was noted that Cambodia currently does not have a national strategy dealing with waste specifically.

There are also some local and sub-national governments with local regulations and ordinances on this issue, although the information available shows these are limited to major urban and commercial centers.

Cambodia's relevant legal frameworks and policies on marine litter are summarized in the following table:

Laws on Waste Management

LEGEND: LAW or POLICY DESCRIPTION RELEVANT PROVISIONS

	Law on Environmental Protection and Natural Resource Management (1996)
	The country's main law on environmental protection and natural resource management
	<p>Article 2 Preparation of national and regional environmental plans</p> <p>Article 10 Requirement of consultation with MOE by other government agencies before any activity is conducted.</p> <p>Article 12 Preparation of an inventory list of pollutants toxic and hazardous substances.</p> <p>Article 13 Issuance of relevant sub-decrees .</p> <p>Article 14 Provides that monitoring equipment, providing samples, and preparing records and reports, must be done by the responsible persons in collaboration with the MOE.</p> <p>Article 15 Allows inspection by the MOE.</p> <p>Article 16-18 Provides for public participation and access to information.</p> <p>Article 19 Establishes the Environmental Endowment Fund.</p>
	Sub-decree No.27 on the Control of Water Pollution (1999)
	Provides for specific guidelines and requirements on water pollution, including permits and prohibited acts
	<p>Article 2 Applies to all sources of pollution and all activities that cause pollution of the public water areas.</p> <p>Article 8 The disposal of solid waste or any garbage or hazardous substances into public water areas or into public drainage system shall be strictly prohibited," and "the storage or disposal of solid waste or any garbage and hazardous substances that lead to the pollution of water... shall be strictly prohibited</p> <p>Chapter 4 Monitoring and analysis of water pollution is the responsibility of the MOE.</p>

Sub-decree No 36 on the solid waste management (1999)

The purpose of this sub-decree is to regulate the solid waste management with proper technical manner and safe way in order to ensure the protection of public health environmental quality and the conservation of bio-diversity (Article 1)

- Article 4** MOE shall establish guidelines on disposal, collection, transport, storage, and recycling, minimizing amount of waste and dumping of household waste in province and cities in order to ensure the management of waste with safe way. The authorities of the provinces and cities shall establish the waste management plan in their province and city for short, medium and long-term.
- Article 5** The collection, transport, storage, recycling, minimizing and dumping of waste in the provinces and cities is the responsibility of the authorities of provinces and city.
- Article 8** The domestic investment in construction of landfill, incinerator, storage sites or recycling plant for household waste shall be subject to prior approval from the MOE.
- Article 10** Importation of household waste to Cambodia prohibited.
- Article 11** The MOE shall establish guidelines on the management of hazardous waste to ensure the safe management. Covers fibrous and clothing wastes from textile and garment industry; [and]... plastics waste from production or use of plasticizers.

Sub-decree No.113 on the Management of Garbage and Solid Waste of Dintowns (2015)

- Regulates SWM in urban areas with “effectiveness, transparency and accountability”.
- It provides for how solid waste is to be sorted and managed, and outlines penalties for non-compliance.

- Article 3** Covers separating, storing, cleaning, collecting, transporting, recycling and management of landfills of garbage and solid waste of dintowns in the Kingdom of Cambodia. But not industrial solid waste and hazardous waste management.
- Articles 6, 8, 9-13** Provides for further devolution of SWM functions to sub-national authorities.
- Article 15** Mandates separating and packaging reusable and recyclable solid waste.
- Article 18** Payment for cleaning, collecting and transporting services and services of garbage and solid waste of dintowns landfills.
- Article 30** Capital, municipal, district and khan shall be responsible for work regarding cleaning, collecting and transporting services and service of garbage and solid waste of dintowns landfills with effectiveness, transparency, accountability and environmental safety.
- Article 33** Stipulates that a maximum service fee for waste collection is to be determined by the Ministry of Interior (MOI), Ministry of Economy and Finance (MEF) and MOE.
- Article 34** Income generated by the management of garbage and solid waste of dintowns is personal income of municipal and district administrations.
- Provides that municipal and district administrations may utilize their budgets to support activities related to the management of solid waste.

Sub-decree No.16 on Electrical and Electronic Equipment (EEE) Waste Management (2016)

Covers all activities encompassing storage, disposal, collection, transport, recycling and dumping of EEE waste.

- MOE has responsibility for the prevention of all activities that impact human health & the environment from all sources polluted by EEE waste.
- Dumping EEE waste in landfill, public spaces, and water systems is restricted.

Relevant Provisions in other Environmental Laws**Law on Water Resources Management of the Kingdom of Cambodia**

Provides for regulations and guidelines on the management, use, and conservation of water resources in Cambodia.

Article 2 Provides the requirement of a license to use the water resources not indicated in Article 11.

Article 14 Provides that the Ministry of Water Resources and Meteorology (MOWRAM) shall consult with other agencies and local authorities when dealing with water utilization.

Article 22 Provides that disposing polluting substances requires a water license or authorization.

Article 36 Paragraph 3, Subparagraph 2 Provides for the penalty imposed on a violator who discharges polluting wastewater into the water source without a license.

Law on the Management of Pesticides and Fertilizers (14 January 2012)

Provisions provide for safe handling and disposal of pesticides so as not to harm water bodies and the environment.

Article 50 Provides for the prohibited trade activities of pesticides. Paragraph 3 of which prohibits building a pesticide warehouse near water sources.

Article 51 Prohibits intentionally disposing pesticide wastes into water sources.

Article 110 Provides the penalty for intentionally draining pesticide waste into water sources.

Law on Mineral Resource Management and Exploitation

Provisions provide for the management and requirements for mineral extraction and exploitation.

Article 21 Requires compliance with the Law on Environment Protection and Natural Resource Management, an Environmental Impact Assessment (EIA) and an Environmental Impact Statement (EIS), an Environment Management Plan (EMP), a mine site restoration and rehabilitation and financial guarantees.

Royal Kram NS/RKM/0506/011 on Promulgation of the Fisheries Law (2006)

Provides for the management, guidelines, and requirements for the fisheries sector.

- Article 15** Provides the important principles in the National Fishery Management Plan, one of which is to minimize the degree of pollutant within the fishery domains.
- Article 20** Prohibits the usage of some fishing gears.
- Article 21** Prohibits producing, buying, selling, transporting, and storing prohibited gear
- Article 22** Prohibits disposing toxic substances in fishery domains.
- Article 25** Prohibits building or dumping dams/dikes across water sources in large scale.
- Article 52** Lists prohibited acts that destroy marine life.
- Article 57** Prohibits discharging any material stipulated in article 22.
- Article 98 - Paragaraph 3** Penalizes dumping, flowing, draining toxic substances, polluting or harming aquatic animals and plants in the fishery domains.

Implementation, Enforcement and Monitoring**Environmental Guidelines on Solid Waste Management in Kingdom of Cambodia (2006)**

- Goals and purposes of the environmental guidelines on solid waste management to ensure the protection of the public health, environment and the conservation of bio-diversity by avoiding polluting by solid waste.
- The guideline applies to all activities related to discarding, storage, collection, transport, recycling, treatment, composting and disposal of all kinds of solid waste.

Part 3 (2) Preparation of solid waste management plans by provinces and cities and private institutions.

Part 4 Landfill Ordinance (2) allows basic standard landfill, sanitary landfill, and hazardous waste landfill.

Part 5 Composting Ordinance.

Part 6 Medical Waste Management.

Part 7 Environmental Education (4) environmental education plan shall help inculcate the awareness of waste management, avoidance and production of waste, reduction, reuse, recycling and storage of solid waste in safe manner.

Sub-decree No.168 on the Management of Plastic Bags
Addresses the “reduction, import, production, distribution and use of plastic bags” to improve “public health, environment and aesthetics”
<ul style="list-style-type: none"> • Outlines permissible dimensions (size, thickness of plastic) of plastic bags in Cambodia and penalties for non-compliance.
The declaration (Prakas) No. 80 of the Ministry of Interior and the Ministry of Environment on garbage solid waste management in provinces-cities of the Kingdom of Cambodia
The purpose of this declaration is to improve the responsibility of an authority and involved institutions for mental and efficient implementation on solid waste management in provinces and cities of the Kingdom of Cambodia, which under administer by themselves, in order to ensure to protect the human health, environmental quality, beauty and bio-diversity.
<p>Article 2 Declaration shall be applied to all activities that related to collection, temporary storage, transport, recycling, dumping of garbage and all types of solid waste in provinces and cities of the Kingdom of Cambodia.</p>
Proclamation No. 028 KOR SOR KOR on restrictions of fishing gear allowed in inland and marine fisheries
Provides for regulations and guidelines on fishing gears
<p>Article 1 Provides that the fishing gears in Tables “A” and “B” are allowed to do fishery in the inland and marine fishery domain of Cambodia</p>
Sub-decree No.72 on Environmental Impact Assessment (EIA) Process (1999)
Principally outlines the procedures and requirements of EIAs
<ul style="list-style-type: none"> • Requires wastewater treatment plants, and waste processing or burning projects of any size or capacity to conduct an EIA

National Action Plans and Programs

Cambodia’s **National Environment Strategy and Action Plan, 2016–2023 (NESAP)** aims to ensure that environmental protection and sustainable natural resource management are pillars of the country’s socioeconomic development.⁵¹ The NESAP provides a detailed analysis of the state of the environment in Cambodia, and outlines priority policy and governance improvements and financing mechanisms that can help the country achieve environmentally sustainable economic development. It also identifies priority policy tools and financing options for sustainable natural resource management and environmental protection. The NESAP outlines four major strategic objectives:

⁵¹ See ADB (2018), Cambodia’s NESAP. Available at <https://www.adb.org/publications/cambodia-national-environment-strategy-action-plan>

- **Strategic Objective 1:** To strengthen cross-sectoral collaboration and relevant legal instruments and guidelines to improve coordination, regulation, and delivery functions for sustainable development outcomes.
- **Strategic Objective 2:** To improve resources use efficiency for healthy environment and social well-being, while increasing business competitiveness and incentivizing technological innovation.
- **Strategic Objective 3:** To develop and implement financing mechanisms, benefitsharing schemes and fund mobilization plans for investing in the modernization of the management and conservation of environment and natural resources.
- **Strategic Objective 4:** To raise public awareness, build individual and institutional capacities, promote technology transfer and strengthen the application of monitoring.

Also worth noting are the following detailed objectives, which relate to waste management and addressing the marine litter issue:

- **Objective 2.1:** To promote development and application of innovative technology, products and services for wasting less, and using what is available better.
- **Objective 2.3:** To support national line ministries and institutions and subnational administration (districts) in improving waste management and 3 Rs (reuse, recycle and reduce) targets for a move to a recycling and green society.⁵²

Cambodia's Sustainable Development Goals Framework (2016-2020) was adopted in 2018. It addresses all 17 global Sustainable Development Goals (SDGs) framing them within the Cambodian context. Action on marine litter aligns with four Cambodian SDGs:⁵³

- CSDG 6: Clean Water and Sanitation, in particular Target 6.1, which presents potential to reduce marine litter generated from plastic water

bottles and reduce reliance on plastic through enhanced water security, that is: '[By 2030] achieve universal and equitable access to safe and affordable drinking water for all.' Also relevant is Target 6.3, which refers specifically to water quality and pollution reduction: 'By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.'

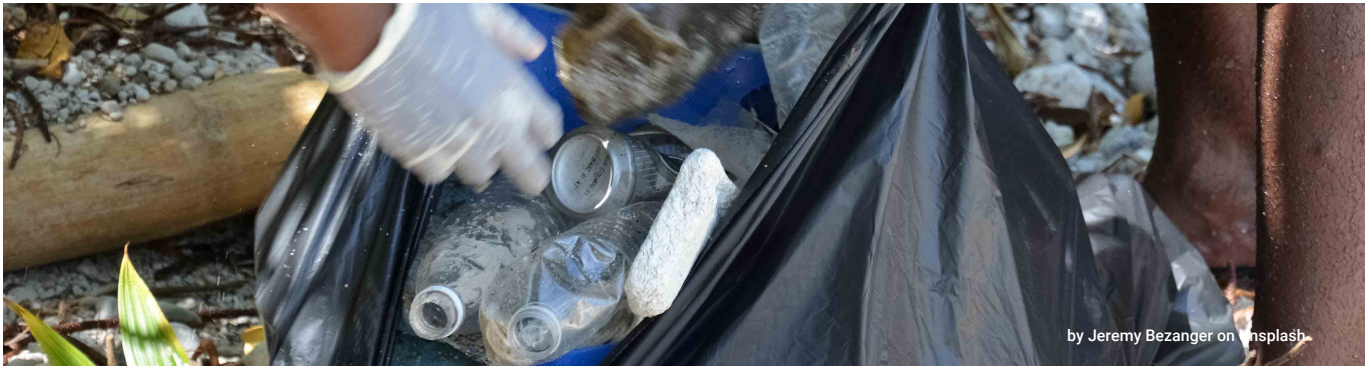
- CSDG 11: Sustainable Cities and Communities, specifically Target 11.6, which aims to 'reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management'. A key indicator for this is 11.6.2, that is, 'Percentage of the deduction [of] plastic bags used (reported annually)'.

- CSDG 12: Responsible Consumption and Production, including Target 12.5, which focuses on circular economy approaches and sustainable consumption and production, specifically: 'By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.' A key indicator is 12.5.1, that is, 'National recycling of material[s] used'.

- CSDG 14: Life Below Water, with the most relevant target being 14.1, that is, 'By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution'. Of particular importance is Indicator 14.1.1, that is, 'Percentage of the reduction of the sea pollution by the conservation activities'. Marine litter also indirectly relates to Target 14.7, that is, 'By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism', as marine litter, including microplastics entering the food chain and Abandoned, Lost and Discarded Fishing Gear (ALDFGs), may have adverse impacts on fisheries health and productivity.

⁵² According to UNDP Cambodia: "Since 2018, the Royal Government of Cambodia has promoted the 4Rs – Refuse, Reduce, Reuse, and Recycle – framework to tackle plastic pollution. To this end, a range of so-called "carrot-and-stick" measures relating to education, incentives and law enforcement have been formulated and implemented"

⁵³ See FFI and COBSEA, Marine Litter in Cambodia: A Situation Analysis & Policy Recommendations (2021)



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The **Rectangular Strategy Phase III and National Strategic Development Plan (NSDP) Environmental Priorities (2013)** identified “environment and natural resources management and managing impacts of climate change on Cambodia’s ecological systems and socioeconomic development” as key challenges to be addressed in a collaborative manner. It requires all subsequent strategic plans, action plans, and programs to be sensitive and responsive to all these issues by putting forth actionable proposals for achieving the intents. Environmental sustainability was identified as one key aspect of the overarching environment for the sustainability of Cambodia’s economic growth and social development. It identified the following environmental priorities:

- Sustainable management of natural resources;
- Intensifying efforts to reduce impacts of climate change by strengthening adaptation capacity and resilience to climate change and green development;
- Strengthening technical and institutional capacity to promote their mainstreaming into the policies, laws, and plans at national and sub-national levels; and
- Continuing to introduce measures to conserve environment and ecosystems.

These have been reiterated in the **Rectangular Strategy Phase IV (2018)**, which includes sustainable management of natural resources and culture, and ensuring environmental sustainability and preemptive response to climate change as strategies.

There is also a **National Policy on Green Growth (2013-2030)** which is envisaged to strike a balance of economic development with environment, society, culture, and sustainable use of national resources through integration, matching and adaption, as well as harmonization between a green growth principle and national policy.⁵⁴ It aims at “enhancing the well-being and livelihood of all people in harmonization with ecological safety through green development growth, basing on green economy, blue economy, environmental protection, social safety nets system, and uphold of national cultural identity”. This policy can indirectly support technological innovations which can help improve waste management systems in Cambodia.

Efforts in the Pipeline

The recent report by FFI and COBSEA noted the following laws and policies that are being considered and finalized:⁵⁵

- **Cambodia’s Law on Fisheries**, is currently under review by government authorities as of December 2021, with more recent drafts including provisions on inland aquaculture and mariculture management, water quality and discharge of waste matter;
- **Environment and Natural Resource Code of Cambodia**, is also under review by government authorities as of December 2021, and more recent drafts include provisions to support an enabling landscape for sustainable consumption and production;
- **Circular Economy Strategy and Action Plan**, aims to create an enabling environment to support the systemic transformation required to realise a circular economy in Cambodia;
- **National Plastics Action Plan and Roadmap**, aims to create realistic and effective plastic policies to reduce plastic pollution; and
- **Sub-decree on Plastic Management**, which is likely to include provisions to manage and reduce single-use plastic (SUP), reduce and management plastic imports and address micro-plastic pollution.

⁵⁴ <https://policy.asiapacificenergy.org/node/2807>

⁵⁵ FFI and COBSEA. *Marine Litter in Cambodia: A Situation Analysis & Policy Recommendations* (2021), 37.

3 GAP ANALYSIS FINDINGS AND OBSERVATIONS

Guided by the Framework and Methodology in Annex B, the tables below present and assess the gap analysis framework in relation to existing laws, policies and measures, and those in the pipeline. The assessment will use the following criteria:

A. Policy Enacted, or Target Available and Up-to-Date

there is an existing policy and/or target and it is assessed as adequate to address the specific criteria.

B. Policy Enacted, or Target Available but Inadequate

there is an existing policy and/or target and it is assessed as inadequate due to outdated targets, poor implementation, or missing elements, among others.

C. Policy in the Pipeline, or Target Available, but not Up-to-Date





there are verified proposals to address the criteria; or targets are available but outdated.





D. No Policy or Information Available

it has been determined that there is no policy or proposal that deals with the specific criteria.

Summary of Findings and Observations

LEGEND:

	POLICY ENACTED, OR TARGET AVAILABLE AND UP-TO-DATE
	POLICY ENACTED, OR TARGET AVAILABLE BUT INADEQUATE
	POLICY IN THE PIPELINE, OR TARGET AVAILABLE, BUT NOT UP-TO-DATE
	NO POLICY OR INFORMATION AVAILABLE

MITIGATE WASTE LEAKAGE INTO THE ENVIRONMENT	
Regulatory	
National policies that regulate and monitor litter from land based sources	 <p>See Law on Environment Protection and Natural Resource Management (1996) See Law on Fisheries Management</p>
National policies that regulate and monitor litter from sea based sources	
Local policies that regulate and monitor litter from land and sea-based sources	 <p>Various sub-national regulations which are limited to the capital Phnom Penh and other major cities and commercial centers</p>
National waste reduction target	 <p>National Solid Waste Management Strategy under development by MOE</p>

National target for reduction of marine litter	
National targets reported regularly and accurately	National Solid Waste Management Strategy under development by MOE Various sub-national regulations
National agency mandated to implement waste management programs	The Ministry of Environment is the main governing body with the mandate to protect coastal and marine environments (mandated under sub-decrees 27, 36, 113 and 168)
National agency specifically focused on marine litter	MOE and National Council for Sustainable Development created the National Task Force on Plastic but with limited manpower, technical capacity, and resources
Regulatory role of local governments identified	Strategic Framework for Decentralization and Deconcentration Reforms (2005) defined the key characteristics of the new Sub-National administration system Subsequent sub-decrees on waste management clarified this role
Economic	
National target for reduction of marine litter	See Law on Environment Protection and Natural Resource Management (1996) and related sub-decrees
National policies include specific prohibitions against/penalties for littering in marine and coastal environments	See Sub-decree No.27 on the Control of Water Pollution Law on Water Pollution Fisheries Law
Local policies that prohibit and penalize littering in marine and coastal environments	Various sub-national regulations which are limited to the capital Phnom Penh and other major cities and commercial centers
National policies that impose landfill use fees	Article 18, Sub-decree No. 113
National policies that impose recycling fees	Article 18, Sub-decree No. 113 but exact fees are not specified and left to the determination of government authorities
National policies on EPR	See proposed Sub-decree on Plastics Management (which includes EPR provisions)
Local policies that impose fees for waste producers	Various city-level regulations which are limited to the capital Phnom Penh and other major cities and commercial centers

National policies that impose levies and/or charges for particular plastic products	Currently only small levy on plastic bags targeting supermarkets and shopping centers
Local policies that impose levies and/or charges for particular plastic products	Various city-level regulations governing waste management
Technology	
National policies that mandate specific technology/ies to be used for mitigating waste leakage	Article 8, Sub-decree No 36 on domestic investments for waste management, but specific technologies are not identified
R&D efforts to address waste leakage into the environment (with sufficient policy and financial support)	Several efforts noted by stakeholders consulted; none specific by the government
Data/Information	
National policies consider emerging issues and recent science on marine litter and its impacts	Draft proposal include discussions around marine litter
National policies support public access to information on waste management, including pollution and waste leakage	Articles 16-18 of Law on Environment Protection and Natural Resource Management (1996) on Public Participation and Access to Information
Voluntary	
National policies that encourage citizens participation in waste reduction and clean ups	Articles 16-18 of Law on Environment Protection and Natural Resource Management (1996) on Public Participation and Access to Information Duty of citizens to comply with regulations in various decrees
National policies that encourage private sector participation in waste reduction and clean ups	Article 8, Sub-decree 36 on domestic investments, but areas of investment and specific activities not identified
National policies that encourage or incentivize reduction of marine litter specifically	

INCREASE WASTE RECOVERY AND RECYCLING	
Regulatory	
National targets for waste recovery and recycling	Only for select sub-national/city plans (e.g. Phnom Penh)
National targets for waste recovery and recycling of marine litter	
National policies that regulate and monitor litter from land based sources	
National policies that require waste segregation at source	
Economic	
National policies impose penalties prescribed for facilities and individuals who fail to segregate waste at source	See Chapter 7: Penalties of Sub-decree No. 113
National policies provide incentives to facilities and individuals who segregate their waste	
National policies provide incentives related to recycling infrastructure and/or technology	
National policy provides for incentives that specifically pertain to the recovery of marine litter	
Technology	
National policies support research and development in waste recycling technology	See objective 2.1 of NESAP and city waste management strategy and action plan (e.g., Phnom Penh), which are limited to the capital Phnom Penh and other major cities and commercial centers
National policies support research and development in waste recovery technology	See objective 2.1 of NESAP and city waste management strategy and action plan (e.g., Phnom Penh), which are limited to the capital Phnom Penh and other major cities and commercial centers
National policies support research and development for tracking additives in waste	

National policies that mandate product type composition for better recovery and recycling	See Sub-decree 168 on Management of Plastic Bags (permissible dimensions) but with limited application and coverage
Data/Information	
National policies on mandatory reporting on waste recovery and recycling for government facilities and agencies	Article 14 Law on Environmental Protection and Natural Resource Management mandates reporting but no data available or reported
National policies on mandatory reporting on waste recovery and recycling for local government units	Article 14 Law on Environmental Protection and Natural Resource Management mandates reporting but no data available or reported
National policies on mandatory reporting on waste recovery and recycling for the private sector	
Voluntary	
National policies encourage citizens participation in waste recovery and recycling	Articles 16-18 of Law on Environment Protection and Natural Resource Management (1996) on Public Participation and Access to Information Duty of citizens to comply with regulations in various decrees
National policies encourage private sector participation in waste recovery and recycling	
National policies encourage or incentivize recovery and recycling of marine litter specifically	

CREATING SUSTAINABLE PLASTIC PRODUCTION AND CONSUMER SOCIETY

Regulatory

National policies prescribe bans or phase outs for SUP shopping bags	See Sub-decree 168 Proposed sub-decree on Plastics Management
National policies prescribe bans or phase outs for takeaway food containers	NSWMC prepares a list of Non-Environmentally Acceptable Products (NEAP), to be phased out according to a set schedule (RA 9003). Plastic straws and stirrers have been identified as NEAPs (NSWMC Resolution 1428 2021).
National policies prescribe bans or phase outs for plastic from online retail	

Local policies prescribe similar bans or phase outs	
National policies on mandatory reporting on waste recovery and recycling for the private sector	
National policies that mandate Extended Producers Responsibility	See Chapter 7: Penalties of Sub-decree No. 113
National policies that mandate Buy-back, offsetting or credit schemes	See Chapter 7: Penalties of Sub-decree No. 113
Economic	
National policies that provide fiscal incentives for the development of plastic alternatives	
Technology	
National policies that support R&D in plastic alternatives and use of natural and/or eco-friendly materials	See objective 2.1 of NESAP and city waste management strategy and action plan (e.g., Phnom Penh), which are limited to the capital Phnom Penh and other major cities and commercial centers
Data/Information	
Data on production, consumption, and disposal patterns of plastic products available	
Voluntary	
National policies encourage citizens participation in circular economies	See proposed Sub-Decree on Plastics Management
National policies encourage private sector participation in circular economies	See proposed Sub-Decree on Plastics Management

Based on the findings of summarized in the table above, the following key points have been observed.

1. While there are general laws and policies on solid waste management, gaps and implementation challenges prevent these from becoming fully effective.

Cambodia's legal and policy framework on waste management contains the basic requirements of such as system (segregation, collection, transport, disposal with some recovery and composting). Based on stakeholder consultations, the main laws and sub-decrees provide the general guidelines and regulations, however the specifics of its implementation and enforcement are not clear and have often been left to the determination of local governments owing to the mandate for devolution. The situation is also made difficult by the absence of an overall national waste management strategy and action. Efforts have also mostly been concentrated in the urban areas, leaving rural waste management largely underserved.

The specific gaps and barriers will be discussed in the subsequent section.

2. Policies still focus on traditional waste management and have not moved to a more circular approach

Echoing the previous observation, the presence of basic general waste management laws also show that Cambodia has not yet moved to the circular approach which is critical in addressing the marine litter challenge posed by plastic pollution. Recycling, resource recovery and other circular policies and approaches are either missing, in nascent stages of development, or have not yet been used in the narrative of national strategies and plans. It has also been noted in various reports and through the stakeholder consultations that there is limited awareness of recycling and circularity among government officials and employees, and the general

public. Recent initiatives by the national government with development partners (as discussed above) are helping pave the way for more circular approaches in waste management.

3. There are important efforts in the pipeline that need to be harmonized with an overall government strategy and approach

There are important efforts in the pipeline which will improve efforts to address marine litter, and ideally these can be rolled out and implemented quickly. However, these efforts need to be aligned with an overall government strategy on waste management – which unfortunately as of December 2021 is still under drafting and consideration. Although existing strategies related to sustainable development, green growth, and environmental protection provide some guidance and direction, there remains a need for a sector-specific strategy on waste management. This should of course include key action points for dealing with marine litter and plastics management.



Assessment of Gaps and Barriers

This section discusses in the detail the identified gaps and barriers based on the analysis of the existing legal and policy frameworks on marine litter.

	Mitigate waste leakage into the environment	Increase waste recovery and recycling	Create a sustainable plastic production and consumer society
Barrier/Gap			
Legal and Policy	<ul style="list-style-type: none"> Lack of national strategy on waste management Gaps in current legal and policy frameworks 	<ul style="list-style-type: none"> No science based national targets on waste recovery and recycling Lack of incentives and support for investments in waste recovery and recycling facilities 	<ul style="list-style-type: none"> Pending circular economy and other strategies Lack of clear and viable upstream policies
Institutional	<ul style="list-style-type: none"> Overlapping mandates and sectoral plans Unclear devolution of mandates and responsibilities of local governments Lack of coordination between government and other stakeholders 		
Capacity, Funding, and Resource	<ul style="list-style-type: none"> Limited capacity of national government agencies Limited capacity and resources of local governments for devolved functions 	<ul style="list-style-type: none"> Limited support to research and development, and new technology 	
Implementation and Enforcement	<ul style="list-style-type: none"> Weak policy implementation and enforcement 	<ul style="list-style-type: none"> No formal recycling infrastructure and reliance on informal waste sector 	
	<ul style="list-style-type: none"> Lack of research to establish clear baselines 		
Political, Societal, and Cultural	<ul style="list-style-type: none"> Lack of political will to apply cross-sectoral implementation and move away from “compartmentalized institutional arrangements” Non-recognition and formalization of waste sector workers 	<ul style="list-style-type: none"> Prevalence of throw-away/wasteful culture Weak programs to shift consumer behavior 	

Legal and Policy Gaps/Barriers

Despite the presence of general waste management laws, Cambodia currently does not have a national strategy or action plan on waste management. Some reports indicated that a draft was under consideration as early as 2018, but it has so far not been released nor approved. This is related to the lack of science-based national targets on waste recovery and recycling which should have ideally been included in the national strategy. These are essential for the proper planning and implementation of waste management laws and action to address marine litter. The national strategy could also help provide better guidance for local/sub-national governments who are struggling to cope with the devolved function on waste management.

In addition to the above, some of the other potential improvements in the legal and policy framework include:

1. Pending strategies such as:

- A. Sub-decree on Plastics Management;
- B. Circular Economy strategy;
- C. National Plastics Action Plan and Roadmap;
- D. Environment and Natural Resources Code;
- E. Law on Fisheries amendments.

2. Additional policies that could be developed include:

- A. Incentives and support for investments in waste recovery and recycling facilities, especially by the private sector;
- B. Strategy or action plan to address marine litter specifically;

- C. Clear and viable upstream policies (focused on waste reduction and change in consumption and production habits and patterns);
- D. Policy or program to support and manage the just transition covering informal waste sector workers.

3. Potential amendments to current laws and plans could include:

- A. Mandatory use of Sanitary Land Fills (SLFs);
- B. Mandatory EPR system
- C. Reporting on consumption and production patterns;
- D. Phase-out of SUP use in on-line retailing;
- E. Guidelines on microplastics and other chemicals.

Institutional

It has been observed that coordination between government agencies (national and local) and other stakeholders can be improved and strengthened. The MOE, as the focal agency for waste management and marine litter issues, has been shown efforts to promote synergies within the Cambodian waste management sector. However, without an established forum within the government bureaucracy (i.e. a commission, council, or inter-agency body), efforts tend to remain ad-hoc and disjointed. This is the case despite the mandate established by law for all agencies to coordinate with MoE on environmental matters. Various stakeholders consulted have also noted that engagement with other waste management actors can be improved, especially with local NGOs and the private sector (currently efforts are focused on international development organizations working within the country).

This situation, coupled with the absence of an overarching national strategy and/or action plan for SWM, results in overlapping mandates and sectoral approaches." Although MOE is the focal agency for environmental matters, there can be overlaps with the Ministry of Agriculture, Forestry, and Fisheries (MAFF), particularly in the aspect of marine litter. MAFF has its own sectoral plans which needs to be ideally be aligned with a national strategy on waste management. Although there are some efforts at synergies (such as the joint circular from MOE and the Ministry of Interior), these need to be scaled-up and institutionalized.

An added impact of the above-described situation is the unclear devolution of mandates and responsibilities of local/sub-national governments. It has been observed that although there are legal mandates for the

devolution of functions (in particular in several sub-decrees), there is very little detail as to how this is to take place at the local level. The guidelines that are available need to be clarified as to the dynamics and role of the local government with national agencies, and with other local/sub-national units.

Capacity, Funding, and Resource

Capacities of government officials, both at the national and local levels, need to be improved and strengthened. It was noted in discussions with MOE and other stakeholders that there is limited manpower dedicated to solid waste management implementation. Technical experts are also needed to support implementation. The same is true at the local level, where the sub-national units are having to implement multiple devolved functions even if they were not ready and fully capacitated to do so. Financial resources to implement plans and programs are also needed at all levels of government. Many development organizations are currently ramping up support for the government to deal with waste management and marine litter. However, these are mostly project based and there needs continuous funding to sustain the efforts and build on any gains achieved.

There is also a need to scale-up support to research and development, and new technology which can greatly improve the capacity of the government. This can also help citizens and the private sector to better comply with regulations, and make the needed investments in much needed infrastructure. The government could also issue regulations which identify, and even mandate, best available and appropriate technologies for waste management and marine litter.

Implementation and Enforcement

One common observation from the research conducted is that law and policy implementation needs to be improved and strengthened. This is particularly the case outside of the urban and commercial centers, where waste infrastructure is lacking and the leakage into the environment of waste such as plastics is likely. This comes as a result of the limited capacity of the national and local government to implement relevant laws (as discussed above). Adding to this barrier is the absence of research that establish clear baselines on the waste situation. Having better data and information can help decision makers come up with better plans and programs to address waste management and marine litter concerns.



An additional implementation challenge is the lack of formal recycling infrastructure in the country. There is heavy reliance on the informal waste sector for general waste management. Though the informal economy provides the benefit of waste collection where government services are lacking, their operations are

oftentimes unregulated and are not aligned with existing standards. More importantly, workers in the informal sector are exposed to health risks and hazards, which is compounded by the lack of formal benefits such as health and social security.

Political, Societal and Cultural

The implementation of reforms to address waste management issues and marine litter needs political will at all levels of government. However it has been observed that there is political apprehension to cross-sectoral and inter-agency implementation of relevant laws. This is also a result of the lack of fora and coordinating bodies within the government structure to tackle this issue. It has been observed that agencies tend to work in compartmentalized institutional arrangements, making issues such as a marine litter – which requires a whole-of-government response – difficult to address.

The prevalence of a throw-away and wasteful culture has also been noted, compounded by very limited programs and interventions to shift consumer behavior. Many people would rather go for convenience in an expanding and improving economy. However, there are efforts to tackle this through the proposed circular economy strategy.

One societal issue which needs immediate action and attention is concerning the informal waste sector. As noted previously, current waste management systems in Cambodia rely heavily on the informal sector. Working conditions are often hazardous, and the arrangements lack any benefits for the workers and their families. Any improvements in the system, including any shifts in consumption and production (including to a green growth economy) must include the informal waste sector in a meaningful and dignified way. Efforts to formalize their work status should be prioritized, working closely with the private sector and other stakeholders who will be involved in the transition.

Proposed Action Plan: A Menu of Specific Actions to Take

This section outlines specific recommended actions and interventions which are suggested as efficient measures to address the identified gaps and barriers.

Barrier/Gap/Issue	Recommendation/Action Point
Legal and Policy	
<p>Preparation and roll-out of national strategy on waste management</p>	<ul style="list-style-type: none"> • Immediately begin the drafting, finalization and release of a national strategy and action plan on waste management <ul style="list-style-type: none"> - Ensure alignment with overall national development strategies such as NESAP, Green Growth Strategy, and Rectangular Strategy III, among others - Ensure alignment with other sectoral plans and initiatives to ensure a holistic and whole-of-government implementation. • Conduct of a more in-depth and comprehensive policy assessment and mapping to provide an accurate view of how the solid waste management and pollution generally, and marine pollution more specifically, are actually addressed at different levels of governance • Focus on long-term planning through the regular mandatory updating of the national strategy so that budgets of focal agencies, particularly of MOE and local governments, can be identified and earmarked for waste management and marine litter related initiatives. <ul style="list-style-type: none"> - Ensure alignment of sub-national plans (e.g., city plans) with the national strategy and approach
<p>Addressing gaps in current legal framework</p>	<ul style="list-style-type: none"> • Swift approval of the following legislation and policies : <ul style="list-style-type: none"> - Sub-decree on Plastics Management - Circular Economy strategy - National Plastics Action Plan and Roadmap - Environment and Natural Resources Code - Law on Fisheries amendments • Consider and draft bills or policies on the following: <ul style="list-style-type: none"> - Specific plan of action addressing marine litter <ul style="list-style-type: none"> • Aligned with national strategy • Provide for roles and responsibilities, with clear targets and goals - Mandatory use of SLFs (ban other types of disposal facilities); including banning incineration as a means of disposing residual waste - Mandatory use of SLFs (ban other types of disposal facilities); including banning incineration as a means of disposing residual waste - Mandatory EPR system - Phase-out of plastic use in online retailing - Incentives and programs that: <ul style="list-style-type: none"> • Encourage private sector shift to sustainability; • Improve recycling and resource recovery; • Support development of plastics alternatives; • Address marine litter in general - Mandatory reporting of data on production, consumption and disposal patterns - Regulation and prohibition on the use of microplastics and other chemicals - Program to support and manage the just transition covering informal waste sector workers

<p>Providing for science based national targets on waste recovery and recycling</p>	<ul style="list-style-type: none"> • Improve data collection on waste generation and disposal at all levels as basis for waste-related targets <ul style="list-style-type: none"> - Ensure alignment of local government waste-related targets with national targets • Publish scientific and technical basis of waste-related targets • Establish mandatory reporting of market information (i.e., production, distribution, sale, and recovery) by top plastic manufacturers and FMCG companies. • Identify recovery and recycling targets within the overall waste targets (i.e., what percentage of waste diverted should be recovered and recycled) • Establish mandatory requirements for eco-labelling for better recycling
<p>Ensuring the availability of incentives and support for investments in waste recovery and recycling</p>	<ul style="list-style-type: none"> • Develop and implement a clear and concrete incentive and support program for waste recovery and recycling facilities • Ensure transparency in the utilization of the Environmental Endowment Fund, identifying what has been used for waste management and marine litter
<p>Fast-tracking approval and roll-out of Circular Economy and Other Strategies</p>	<ul style="list-style-type: none"> • Ensure immediate passage of key strategies in the pipeline • Ensure meaningful public consultation and participation, as well as briefing and capacity building of government officials, especially at the local/sub-national level
<p>Crafting clear and viable upstream policies</p>	<ul style="list-style-type: none"> • Development of a clear program of upstream policies targeting <ul style="list-style-type: none"> - Waste reduction - Product Design - Change in consumer lifestyle and habits • Support and incentives for upstream programs which reduce waste, and shift consumption and production patterns
Institutional	
<p>Clarifying mandates and responsibilities among government agencies, and between sectoral plans</p>	<ul style="list-style-type: none"> • Consider creation of a multi-agency council or commission on waste management <ul style="list-style-type: none"> - Create and designate smaller technical working groups on specific areas of implementation, such as: <ul style="list-style-type: none"> • Marine litter • Data gathering, research and development • Financing, incentives, and capacity building support • Implementation and enforcement • Upstream policies and programs • Conduct a review and inventory of sectoral plans and programs and determine alignment with a national strategy on waste management <ul style="list-style-type: none"> - Remove overlaps in roles and responsibilities - Effectively allocate resources using strengths and expertise of each agency

<p>Clarify devolution of mandates and responsibilities to local governments</p>	<ul style="list-style-type: none"> • Provide clearer guidelines on roles and responsibilities of local and sub-national governments <ul style="list-style-type: none"> - Consider developing manuals or guidebooks for uniform implementation of laws and policies - Develop a clear system for monitoring and feedback system with local governments • Consider creating dedicated units or offices at the local level for environmental concerns, particularly for waste management
<p>Provides avenues for coordination between government and stakeholders</p>	<ul style="list-style-type: none"> • Establish a clear and transparent process of consultation and coordination among government and with other stakeholders <ul style="list-style-type: none"> - Ensure access to information and public participation at all stages of the process • Develop dedicated programs for coordination among local governments and other local and community stakeholders <ul style="list-style-type: none"> - With particular emphasis on informal waste sector workers
Capacity, Funding, and Resource	
<p>Building capacity of national government agencies</p>	<ul style="list-style-type: none"> • Strengthen and improve capacity of MOE, as main national focal agency <ul style="list-style-type: none"> - Ensure enough manpower with technical competence and expertise • Consider creation of a multi-agency council or commission on waste management • Increase national budget funding allocation for SWM functions <ul style="list-style-type: none"> - Institute a budget-tagging system for SWM expenditures of government agencies, including local government - Regularly publish and disseminate budget information on accessible platforms for public consumption • Continuing capacity-building programs of government staff and officials <ul style="list-style-type: none"> - Focus on permanent civil-service employees for continuity • Improve system of data collection, monitoring, and information dissemination <ul style="list-style-type: none"> - Train other government officials, the academe, and research and policymakers on how to use the information
<p>Building capacity of local governments for devolved functions</p>	<ul style="list-style-type: none"> • Improve and scale-up existing programs to build capacity of local government to implement decentralization of waste management programs <ul style="list-style-type: none"> - Continuous training program of local environment and natural resources officer and/or solid waste management focal (if designated) • Increase financial and other resources of local and sub-national government units <ul style="list-style-type: none"> - Consider utilization of the Environment Endowment Fund for local projects and activities • Develop a program to assist local governments in planning and programming of projects and activities on waste management <ul style="list-style-type: none"> - Develop template ordinances or model laws which local governments can easily adopt • Focus programs to support local governments in rural/non-urban areas (not just in major cities and commercial centers)

<p>Mobilizing support for research and development, and new technology</p>	<ul style="list-style-type: none"> • Develop and implement a clear policy and roadmap for R&D support for new technologies to address marine litter <ul style="list-style-type: none"> - Clearly identify technologies that can be utilized in waste management; create a menu of options for local governments and waste system stakeholders <ul style="list-style-type: none"> • Product and packaging design and innovation • Appropriate treatment technologies • Suitable recycling and recovery techniques • Appropriate and proper disposal methodologies - Prioritize support for local inventors, researchers, and manufacturers of new SWM technologies and techniques stakeholders • Develop and implement a clear and concrete incentive and support program for waste recovery and recycling facilities
Implementation and Enforcement	
<p>Improving policy implementation and enforcement</p>	<ul style="list-style-type: none"> • Improve and strengthen waste management laws enforcement and implementation <ul style="list-style-type: none"> - Strict implementation of at-source segregation - Increasing capacity of enforcement agencies • Improve coordination and cooperation among national government agencies and local governments in the enforcement of waste management laws on marine litter <ul style="list-style-type: none"> - Identify roles and responsibilities of law enforcement agencies that deal with marine litter
<p>Establish formal recycling infrastructure and waste sector workers</p>	<ul style="list-style-type: none"> • Develop a program for the recognition and formalization of informal waste sector workers <ul style="list-style-type: none"> - Bring together private sector (current formal waste management system) and informal sector through government intervention • Establishment and roll-out of national recycling network <ul style="list-style-type: none"> - Disseminate information to local governments and the general public - Include network of informal waste sector workers and community organizations and cooperatives
<p>Supporting research to establish clear baselines</p> <p>Ensuring availability of disaggregated data and sector-specific research on marine litter impacts</p>	<ul style="list-style-type: none"> • Expand and improve current solid waste management database <ul style="list-style-type: none"> - Make disaggregated data easily accessible - Promote the use of the database among waste management stakeholders • Conduct extensive policy and institutional assessment and stakeholder mapping to streamline functions and improve coordination • Coordinate with the academic community and local and international experts on conducting baseline studies on the waste situation in the country • Publish and disseminate these baseline studies, along with bases for policies and programs to be rolled-out • Ensure availability of disaggregated data on the waste sector which includes women, children, artisanal fisherfolk, and the informal waste sector.

Political, Societal, and Cultural	
Addressing the lack of political will for cross-sectoral implementation	<ul style="list-style-type: none"> • Support advocacy efforts to increase political support for efforts to improve waste management and address marine litter <ul style="list-style-type: none"> - Continue and scale up current information and education campaigns • Increase citizen awareness of solid waste management issues and programs of the government <ul style="list-style-type: none"> - Ensure public access to information on SWM plans, and public participation in the decision-making process • Improve capacity of sub-national/local government officers and staff to ensure continuity despite any leadership change <ul style="list-style-type: none"> - Encourage local governments to develop a database of institutional knowledge on SWM plans, programs, and implementation • Establish local/sub-national solid waste management councils with multi-sectoral participation and membership
Giving formal recognition to informal waste sector workers	<ul style="list-style-type: none"> • Conduct nationwide mapping and identification of informal waste sector workers (including community organizations, and MSMEs) • Establish a system to formalize informal sector workers and provide minimum health and social security benefits • Ensure inclusion of informal waste sector workers in plans to transition to a circular economy
Addressing the prevalence of throw-away/wasteful culture Strengthening programs to shift consumer behavior	<ul style="list-style-type: none"> • Swift roll-out and implementation Circular Economy plan and other strategies • Improve and increase information and education campaigns <ul style="list-style-type: none"> - Coordinate efforts with local governments and CSOs and NGOs, especially community organizations - Translate IEC materials into local dialects • Realign campaign to focus on changing consumption and consumer behavior and patterns, instead of proper waste disposal • Strengthen efforts at engaging the private sector on product re-design for more environmentally friendly and natural alternatives <ul style="list-style-type: none"> - Support research and development of natural and eco-friendly alternatives to materials such as plastics • Facilitate meaningful dialogue between NGOs/citizens and business groups/private sector players

4 CONCLUSION AND RECOMMENDATIONS FOR MOVING FORWARD

Marine litter is becoming one of the major challenges for waste management in Cambodia. This situation not only affects the health and well-being of people and the environment but also the achievement of other SDGs goals and even climate-related targets in the Nationally Determined Contributions. Increasing impacts of environmental challenges such as this can hamper the growth and development of the country, leading to additional challenges for a majority of the population living in poverty. The status quo remains critical, and many issues, gaps and barriers have been identified. But the country's existing legal framework, along with the important proposals and initiatives in the pipeline, can serve as the foundation for facing the challenge of marine litter in Cambodia.

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

1. A critical first step would be to **address the legal, policy and institutional barriers** in the short-term. Having these solved would help provide overall guidance for the different stakeholders in the waste management ecosystem. Particular emphasis should be placed at ensuring the proper coordination of all government agencies. Equally critical is the support given to local/sub-national units to implement the devolved functions. It is important to clarify roles and responsibilities, which will help with the efficient and effective allocation of limited resources. The swift roll-out and implementation of national plans and strategies – especially a national waste management strategy and action plan – should also be prioritized.
2. The government should **continue its efforts at improving implementation and enforcement of existing laws and regulations**. General waste management laws in Cambodia provide the backdrop for effectively tackling marine litter. These should be fully implemented, while the needed legal, policy, and institutional reforms are being put in place. This should be supported by increasing interventions for capacity building, finance and other resources, especially for local/sub-national governments who are at the front lines of the waste crisis. Devolved functions should be clarified with clear guidelines, including what the role of national government agencies are in supporting local governments.
3. Current **efforts towards a more sustainable and circular economy should be mainstreamed and pushed** across all sectors of government and society. As reflected in the plans and proposals in the pipeline, there is an increasing awareness within policy and decision makers that this is a step in the right direction. As a cross-cutting theme, a sustainable and circular economy will help naturally address many of the challenges and root causes of marine litter in Cambodia. Political will is needed to implement these changes. Government agencies should collaborate as much as possible to ensure a whole-of-government and whole-of-society approach.
4. In implementing these recommendations and action points, **the government should ensure respect for people's human rights at all times**. Undoubtedly the waste crisis and marine litter disproportionately impacts those already vulnerable in society. Thus, any efforts to tackle this issue should seriously consider its impact on these sectors of society. Not only should the process afford vulnerable groups an opportunity to be heard and to participate, it should also identify meaningful solutions which help reduce their vulnerability and improve their lives as members of society. This is especially true for the informal waste sector in Cambodia, on which the waste management system heavily relies on.

ANNEX A: AGENCIES, EXPERTS AND STAKEHOLDERS CONSULTED**Government Offices**

MOE Ministry of Environment

CSOs, NGOs and International Development Partners

FFI Flora and Fauna International

IDEA IDEA Consultancy Co. Ltd.

IGES Institute for Global Environment Strategies

GIZ Regional Office Deutsche Gesellschaft für International
Zusammenarbeit GMBH - Regional

UNEP Cambodia United Nations Environment Programme -
Cambodia CounterMEASURE Plastic-Free Rivers Project

WWF Regional Office World Wide Fund for Nature Philippines

ANNEX B: Guide Questions for the Gap Analysis and Needs Assessment

	Mitigate Waste Leakage into the Environment	Increase Waste Recovery and Recycling	Creating Sustainable Plastic Production and Consumer Society
Regulatory	<p>Are there laws and/or policies that regulate and monitor litter from land and sea-based sources?</p> <ul style="list-style-type: none"> • National level • Local level <p>Is there a national waste reduction target?</p> <ul style="list-style-type: none"> • Specific target for marine litter? • Progress reported regularly and accurately? <p>Is there a national office/agency mandated to implement waste management programs?</p> <ul style="list-style-type: none"> • Role of local governments? 	<p>Are there national targets for waste recovery and recycling?</p> <ul style="list-style-type: none"> • Regularly updated? • Specific targets for marine litter? • How is this monitored and evaluated? <p>Are there national laws and/or policies that prescribe minimum recycled content standards?</p> <ul style="list-style-type: none"> • Monitoring and evaluation? <p>Are there national laws and/or policies that require waste segregation?</p> <ul style="list-style-type: none"> • Who enforces/monitors compliance 	<p>Are there laws and/or policies that prescribe bans or phase outs for particular plastic products and microplastics?</p> <ul style="list-style-type: none"> • National level • Local level <p>Are there national laws and/or policies that require the private sector to adopt more sustainable practices?</p> <ul style="list-style-type: none"> • extend to solid waste management? • implementation and enforcement? <p>Are there policies that mandate:</p> <ul style="list-style-type: none"> • Extended producers responsibility schemes? • Buy-back, offsetting or credit schemes? • Zero-waste programs?
Economic	<p>Are there laws and/or policies that prescribe prohibitions and penalties for littering?</p> <ul style="list-style-type: none"> • National level • Local level <p>Are there laws and/or policies that impose levies and charges on specific plastic products to reduce waste at source?</p> <ul style="list-style-type: none"> • National level • Local level <p>Are there national laws and/or policies that prescribe fees for waste producers?</p>	<p>Are there national laws and/or policies that prescribe economic incentives/disincentives related to waste segregation?</p> <ul style="list-style-type: none"> • penalties and incentives provided • individuals, establishments, and facilities <p>Are there national laws and/or policies that prescribe economic incentives related to waste recycling and waste recovery?</p> <ul style="list-style-type: none"> • Specific to marine litter? 	<p>Are there national laws and/or policies that provide fiscal incentives for the development of plastic alternatives</p>
Technology	<p>Are there laws and/or policies that mandate specific technology/ies to be used for mitigating waste leakage?</p> <p>Are there efforts at R&D to address waste leakage into the environment?</p> <ul style="list-style-type: none"> • Is there adequate policy and financial support? 	<p>Are there national laws and/or policies that support R&D in</p> <ul style="list-style-type: none"> • Waste recycling and recovery technology? • Tracking additives? • Tracking and preventing microplastics? <p>Are there laws and/or policies that mandate product type composition for better recovery and recycling?</p> <ul style="list-style-type: none"> • What products are covered? 	<p>Are there national laws and/or policies that support R&D in</p> <ul style="list-style-type: none"> • plastic alternatives? • Use of natural and/or eco-friendly materials? • Viable refilling options?
Data/Information	<p>Are waste data easily accessible and updated?</p> <ul style="list-style-type: none"> • Is there proper data collection methods and monitoring? <p>Do national policies consider emerging issues and recent science on marine litter and its impacts?</p>	<p>Are there national laws and/or policies on mandatory reporting on waste recovery and recycling for:</p> <ul style="list-style-type: none"> • Government agencies and offices • LGUs • Households • Private sector 	<p>Are data on production, consumption, and disposal patterns of plastic products available?</p> <ul style="list-style-type: none"> • Monitoring? • Evaluation and updating?
Voluntary	<p>Are there national laws and/or policies that encourage and/or incentivize stakeholders' efforts to clean up and/or reduce waste at source?</p> <ul style="list-style-type: none"> • Individuals • Civil society • Private sector <p>Are there laws and/or policies that encourage or incentivize reduction of marine litter specifically?</p>	<p>Are there national laws and/or policies that encourage and/or incentivize stakeholders' efforts in waste recovery and recycling?</p> <ul style="list-style-type: none"> • Individuals • Civil society • Private sector <p>Are there laws and/or policies that encourage or incentivize recovery or recycling of marine litter specifically?</p>	<p>Are there national laws and/or policies that encourage and/or incentivize stakeholders' efforts in sustainable plastic production and circular economies?</p> <ul style="list-style-type: none"> • Individuals • Civil society • Private sector



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