

6IMDC:

*It's Not Just Rubber Ducks: Container Ship Spill Prevention,  
Regulation, Mitigation, Environmental Impact and Liability*

## Flotsam & Jetsam: Evolving a Modern Regulatory Framework for an Acutely Modern Marine Debris Problem



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# Snapshot of Today's Discussion

- ↪ Magnitude of the Marine Debris Issue
- ↪ Role of Law
- ↪ Types of Legislative Policy Instruments
- ↪ Overview of International and Regional Legal Instruments Relevant to Marine Debris
- ↪ Examples of Domestic Legislation and Policies Targeted at Marine Debris
- ↪ Framing the Policy Issues
- ↪ Gap Analysis – Key Elements to Consider
- ↪ Target Areas for Regulation
- ↪ Barriers to Effective Laws
- ↪ Recommended Strategies

# Defining Marine Debris

*What is marine debris?*

*Any persistent solid material that is manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned into the marine or coastal environment.*

**Source: NOAA's National Ocean Services**

# Sources and Types of Marine Debris

**Land-based sources:** municipal landfills, transportation of waste along rivers and other waterways, discharge of municipal sewage, industrial facilities, recreational tourism in coastal/beach areas.

**Ocean-based sources:** merchant shipping, ferries and cruise liners, fishing vessels (including lost or abandoned fishing gear), military fleets and research vessels, pleasure craft, offshore oil & gas platforms, and aquaculture farms.

***Source: UNEP 2009***

# Magnitude of the Marine Debris Issue

- Marine debris poses significant environmental, health and economic threats to oceans and coastal ecosystems.
- Marine debris also poses a unique legal and regulatory challenge for many jurisdictions since marine debris comes from both land-based and sea-based sources.
- Many factors influence the level of debris entering the marine environment – e.g. production and consumption patterns, poor waste management practices, gaps in the regulation of waste materials.
- As a result, targeted laws are needed to address marine debris rather than simply relying on laws that only address marine debris as part of a general regulatory framework.

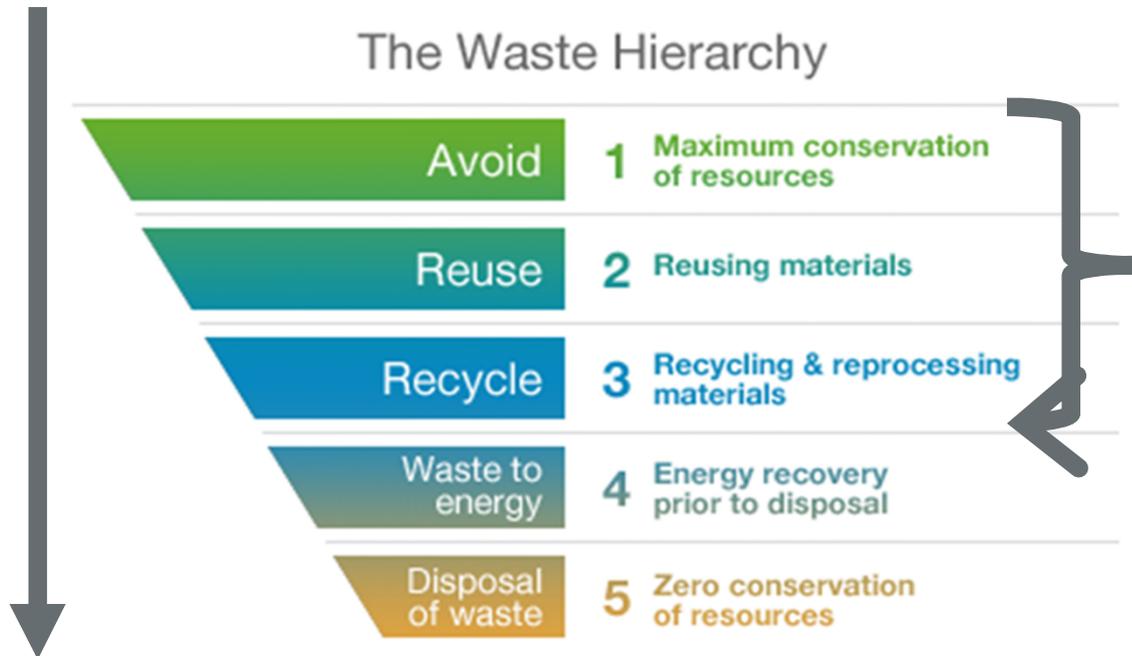
# The Role of Law

- Laws provide the framework for establishing mandates, procedures and standards to prevent and manage marine debris.
- While there are many approaches to managing marine debris, few jurisdictions have an overarching legal framework that deals specifically with marine debris.



# Ensuring Maximum Impacts

*Most Preferred*



*Least Preferred*

Regulations and standards are most effective at the prevention/reduction levels of the waste hierarchy, i.e. dealing with product design, material choice, efficiency, waste management, EPR, etc.

Source of graphic: Burnie City Council (Tasmania) – [www.burnie.net](http://www.burnie.net)

# Policy Landscape – Key Players

- LEGISLATORS/  
POLICY MAKERS**
- Policy Objectives & Priorities
  - Regulations & Standards
  - Funding

- ACADEMIC & RESEARCH  
INSTITUTES**
- Research & Data
  - Technology & Innovation

- NGOs**
- Advocacy
  - Education & Awareness

- REGULATORY  
AGENCIES**
- Policy Development and Implementation
  - Planning & Education
  - Permitting & Enforcement
  - Stakeholder Coordination

- CONSUMERS**
- Behavior Change
  - Pressure on Policy Makers and Industry

- INDUSTRY**
- Product Design/ Innovation
  - Compliance
  - EPR

# Types of Legislative Policy Instruments within the Marine Debris Context

- Policy Framework – sets **overall targets** or **policy objectives**.
- Legislation aimed at **quantitative prevention** – i.e. reducing the amount of litter from entering the sea or waterways, whether land-based or sea-based sources.
- Legislation aimed at **qualitative prevention** – i.e. regulating product materials, reducing the level of hazards associated with marine debris.
- Legislation aimed at helping to **clean up** marine debris.

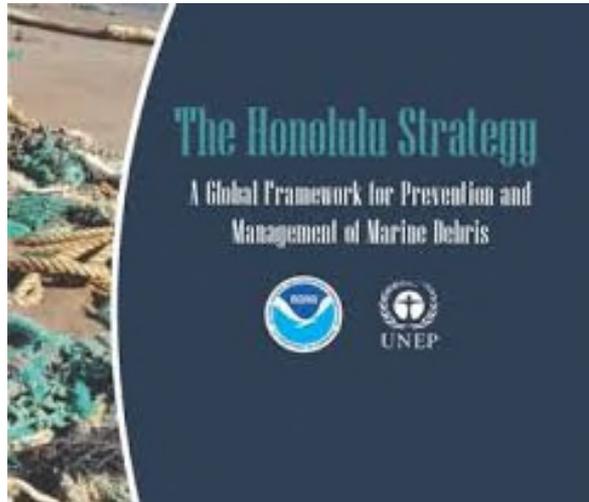
# Overview of the International Legal Framework Relating to Marine Debris

- **United Nations Convention on the Law of the Sea (UNCLOS)** 1982 – broad legal framework for ocean-related issues; it calls on Member States to address land-based sources of pollution as well as pollution from ships.
- **International Convention for the Prevention of Pollution from Ships (MARPOL) 1973/1978** – includes regulations aimed at preventing and minimizing pollution from ships.
- **Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention)** 1972 – aims to prevent marine pollution by regulating the dumping of wastes and other matter at sea; dumping of plastics is prohibited.
- Other multilateral agreements with provisions designed to reduce marine debris: **Convention on Biological Diversity, Convention on Migratory Species.**

# Other Relevant International Legal Instruments

- **Declaration on Environment and Development** – sets out 27 principles of international environmental law.
- **Agenda 21** – blueprint for sustainable development.
- **Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities** – advises national and regional authorities on how to prevent and reduce marine degradation from land-based pollution and activities.
- **UN Sustainable Development Goals (2015, Resolution 70/1) – Goal 14** (Life Below Water) expressly addresses marine debris.
- **UN General Assembly Resolution 235 (2015) on Oceans and the Law of the Sea** – addresses marine debris in many ways, including urging States to adopt national and regional strategies, incentives and infrastructure.

# Honolulu Strategy



- March 2011 (5IMDC)
  - Framework for global efforts to reduce the ecological, human health and economic impacts of marine debris.
  - Serves as a planning tool, common frame of reference and monitoring tool for civil society, governments, inter-governmental organizations and the private sector.
- **Goal A:** Reduced amount and impact of **land-based sources** of marine debris introduced into the sea.
  - **Goal B:** Reduced amount and impact of **sea-based sources** of marine debris, including solid waste; lost cargo; abandoned, lost, or otherwise discarded fishing gear (ALDFG); and abandoned vessels, introduced into the sea.
  - **Goal C:** Reduced amount and impact of **accumulated marine debris** on shorelines, in benthic habitats, and in pelagic waters.

# Key Principles of International Law Relevant to Marine Debris



- **Prevention of Environmental Harm** – calls on States to prevent pollution and minimize damage.
- **Precautionary Principle** – encourages regulators to enact laws, regulations and policies to prevent environmental harm even in the absence of scientific certainty.
- **Polluter Pays** – polluters should bear the cost of environmental pollution.
- **Duty to Cooperate** – multilateral and bilateral cooperation to “effectively control, prevent, reduce and eliminate adverse environmental effects resulting in all spheres, in such a way that due account is taken of the sovereignty and interests of all States.”

# Regional Agreements and Instruments Relevant to Marine Debris

- **Annex IV of the Helsinki Convention** (maritime activities in the Baltic Sea) – Prevention of Pollution From Ships.
- **EU Port Reception Facilities Directive** – to reduce the discharges of ship generated waste and cargo residues into the sea,.
- **Regional Sea Conventions and Action Plans** (covers 18 regions around the world) – implements many of UN Environment’s marine-related policies.
- **EU Marine Strategy Framework Directive** (applies to Baltic Sea, Black Sea, Mediterranean Sea and North East Atlantic Ocean) – each Member State must adopt a marine strategy which is to be reviewed and updated every 6 years. Marine litter considerations are addressed through the EU’s waste regulations including the *Waste Framework Directive*, packaging waste regulations and the circular economy approach.

# Examples of Domestic Legislation and Policies (1)

- **Japan – *Law for the Promotion of Marine Litter Disposal* (2009)** – its purpose is to control and reduce the generation of marine litter. The Law sets out 6 basic principles and is limited to litter washed ashore.
  - Basic Policy for Comprehensively and Effectively Promoting Measures Against Marine Litter
  - Japan Action Network
  - National Cleanup Secretariat
  - Council for Promoting Countermeasures Against Marine Litter

# Examples of Domestic Legislation and Policies (2)

- **South Korea** – South Korean *Marine Environmental Management Act* (2009) – defines the obligations of the state, local governments and people to prevent marine pollution.
- **Singapore** – combined international mandates with existing national legislation → *Prevention of Pollution of the Sea Act* (1990) which gives effect to the MARPOL Convention and contains domestic provisions on land-based pollution.
- **Netherlands** – marine litter policy covers waste management, material chain management, innovative materials management and producer responsibility – Dutch policy is based on cooperation with stakeholders. Netherlands established targets for 2020 to reduce visible litter on the beach and to decrease the amount of litter found in marine organisms.

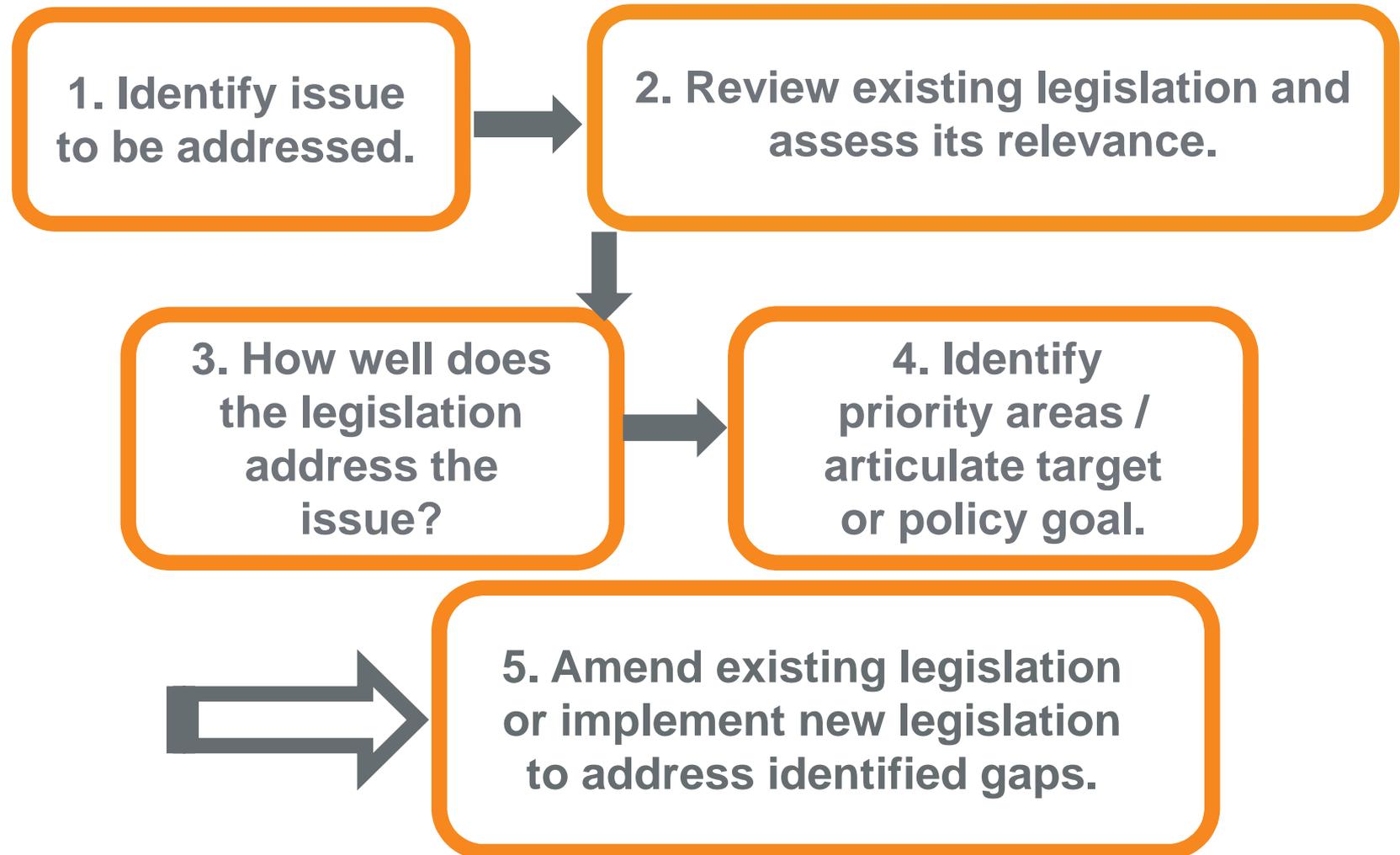
# Examples of Domestic Legislation and Policies (3)

- **Scotland** – launched its Zero Waste Plan in 2010; government adopted a marine litter strategy in 2014 which articulates five strategies:
  - improve public and business attitudes and behaviors around marine and coastal litter;
  - reduce marine and coastal based sources of litter;
  - contribute to a low carbon economy by treating waste as a resource;
  - improve monitoring; and
  - maintain and strengthen stakeholder coordination at the UK, EU and international scales.

# Framing the Policy Questions

- Which existing pieces of legislation can be amended or better enforced to ensure a meaningful reduction in litter items entering the marine environment?
- What new legislation is required to fill gaps in the body of legislation that will address the marine litter problem?
- How do existing policies interact with other policies impacting marine litter?

# Gap Analysis – Mapping Out a Process



# Issue: Production and Use of Land-Based Materials Causing Marine Debris

- Target areas for regulation:
  - **Manufacturing** – prohibitions on nurdles (pre-production plastic), plastic bags and microplastics; product standards and design criteria; packaging and labelling requirements; regulation of disruptive/hazardous additives.
  - **Retail** – regulating plastic bags, single-use items (e.g. utensils and cups) and polystyrene (foam); imposing taxes and other levies; incentivizing reuse of products.
  - **Extended Producer Responsibility**

# Issue: Managing Waste Disposal into the Marine Environment

- Target areas for regulation:
  - Land-based **waste disposal** requirements (including material bans)
  - Siting of **landfills**
  - Mandatory **recycling** and **separation**
  - Land-based **waste cleanup**
  - Abandoned, Lost and Discarded **Fishing Gear**
  - Regulation of marine litter from **ships**
  - Artificial **reefs**

## Other Issues to Consider

- Managing waste in the marine environment (assessment, planning and clean-up)
- Establishing advisory bodies
- Allocating funding to research programs
- Engaging the public
- Engaging the private sector

# Barriers to Effective Laws

- ↪ Failure to recognize that existing laws are not sufficient to deal with marine debris
- ↪ Lack of ambition and leadership
- ↪ Piecemeal approach to regulation
- ↪ Lack of research and data
- ↪ Stringency of requirements
- ↪ Lack of coordination
- ↪ Implementation issues
- ↪ Securing the support of key stakeholders (i.e. citizens and industry)
- ↪ Downloading of waste management responsibilities to local governments with often limited resources
- ↪ Lack of resources for effective enforcement

# Recommended Strategies

- ↪ Adopt legislation or policies that provide an overarching framework for managing marine debris – consider how it will interact with existing laws. Jurisdictions will need to determine the right mix of policy tools considering their unique social, economic and regulatory circumstances.
- ↪ Laws should target:
  - ↪ Single-use items
  - ↪ Non-recoverable items (e.g. plastic microbeads)
  - ↪ Waste management practices
  - ↪ Marine debris monitoring and clean-up programs
  - ↪ Extended producer responsibility
- ↪ Other policy initiatives: setting litter reduction targets, education initiatives, creating market-based incentives.
- ↪ Establish a central agency for coordinating efforts for developing and implementing marine debris legislation.

# Thank you for your attention. Questions?

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