



ISWA Position Paper on Marine Litter: the results of ISWA's Marine Litter Task Force

International Solid Waste Association ISWA

Introduction

ISWA, the International Solid Waste Association, is a non-governmental, independent, and non-profit association dedicated to promoting and developing sustainable and professional waste management worldwide and the transition to the circular economy. ISWA's objective is the global exchange of information and experience on all aspects of waste management, encouraging the adoption of acceptable systems of professional waste management for the protection of human life, health, and the environment, as well as the conservation of materials and energy resources.

ISWA works to improve the environment and human wellbeing at a global level by improving waste management practices, working toward less uncontrolled disposal and diminished waste leakage into the environment. In addition to managing waste, we have working groups that bring industry and public sector professionals together, educate and train young professionals, work towards shifting more materials from disposal to recycling and waste prevention.

Marine litter threatens not only the marine environment, where it damages ecosystems around the globe, it is also highly detrimental to human wellbeing and livelihoods. Aside from health, safety, economic and aesthetic impacts of waste materials in the marine environment, the widespread presence of plastic in the seas has been shown to amplify the effects of climate change, acting as a pathway and concentrator for hazardous substances, and reducing oxygen production in our oceans. The marine environment is the world's largest collective eco-system; about half of earth's oxygen comes from the oceans. It needs to be protected.

ISWA sees the problem of marine litter as directly linked to a lack of sustainable, effective and affordable waste management infrastructure on land and related governance challenges around implementing such infrastructure. Solving both the technical and governance challenges will go a long way to solving the problem of marine litter.

Addressing Marine Litter

In 2017 ISWA initiated the Marine Litter Task Force, an international partnership led and facilitated by ISWA, to research and establish the link between efficient waste management and the prevention of plastic waste reaching our oceans. The Marine Litter Task Force finalised its work in 2022.

The task force has contributed to a better understanding of the myriad causes and potential solutions to the problem through engagement with social, scientific, business, and governmental communities. ISWA has supported the production and dissemination of tools and methods that are already being used to generate a more robust understanding of the sources and impacts of marine litter and provides a pathway toward tackling the main sources of marine litter. This work has been



tested through practical application in coordination with local and national authorities and civil groups in the developed and developing world, which has generated a more thorough understanding of its sources, the types of waste produced and the differences across countries and regions. The task force identified, researched, and established the role of plastics leaking from land-based sources into rivers and oceans as one of the key sources of litter in the marine environment, as detailed in the report *How to Prevent Marine Plastic Litter Now!*

Alongside the marine litter task force, ISWA also has ten permanent working groups addressing various technical and governance issues related to waste management and the circular economy and temporary task forces addressing adjacent problem fields, including the ISWA Plastics Pollution Treaty Task Force and the Closing Dumpsites Task Force, and is also active in cooperation projects such as the CLOCC (Clean Oceans through Clean Communities) project.

In parallel with ISWA's efforts, and in response to the UNEP report *From Pollution to Solution: A global assessment of marine litter and plastic pollution*, in March 2022 at the UN Environment Assembly, Heads of State, Ministers of environment and other representatives from UN Member States endorsed a resolution to end plastic pollution and create an international legally binding agreement by 2024 for enforcement from 2025.

This position paper presents ISWA's understanding of the key challenges related to marine litter and how ISWA will contribute to solving this global problem.

Key drivers, pathways, effects of marine litter

ISWA understands marine litter as a trans-national problem with global implications, and one that requires global instruments and actions. Once in the marine (or riverine) environment, the waste flows freely across political borders, with winds, currents, storms and tides taking the litter to and affecting distant shores and eco-systems. This makes marine litter a difficult challenge to address – not only do the problems often occur far from the source, but its transboundary nature also makes it a potential source of conflict between parties that need to cooperate.

Around 80 % of marine litter stems from land-based sources, while the remaining 20 % is from maritime activities. This is a clear indication that tackling the escape of waste on land is a vital component in the fight against marine litter. Estimates vary, but at least 8 million tonnes of plastic waste enter the oceans each year, mostly from low- to middle-income countries in Asia, Africa and South America, where waste management infrastructure is not yet fully developed. Plastic packaging is the largest single plastic waste fraction, with several studies indicating that over half of all plastic in rivers is plastic packaging.



Drivers

The root drivers for the rise in marine litter are manifold, but three core drivers are and continue to be decisive:

1. **Increasing consumption and waste:** with increased economic wellbeing comes higher levels of material consumption and consequently higher volumes of generated wastes. The fact that products, packaging etc. are seldom designed and produced with circularity and reuse in mind hinders their preservation and increases the probability that they end up as a waste problem.
2. **Increasing prevalence of plastic in waste:** Plastics are being manufactured and used in ever increasing quantities, often in single-use applications. Plastics do not easily degrade, they are lightweight, and they can be tailored to a vast range of applications. These properties also render them an environmental hazard.
3. **Insufficient waste management and resource recovery:** The systems required to properly manage and dispose of these increasing quantities of wastes are, despite significant improvements, currently far from sufficient. Waste management at a global level is simply not yet geared to fully address the quantities and types of wastes generated.

Not only does it negatively affect the environment, human health and livelihoods, marine litter is a very visible indicator of leakage from and failure of our waste management systems.

Pathways

When waste does not enter or escapes from the waste management system, there are plenty of pathways that can transport it to the ocean. Wastes that are deposited directly into streams quickly flow to rivers, and out to the ocean, while drainage systems provide a man-made pathway to the open sea causing manifold problems on the way, such as clogging of sewers. Overflow events in sewage and wastewater systems also lead to waste being discharged into the marine environment – even in a controlled way as a least-worst strategy. Waste disposed on uncontrolled dumpsites, litter and fly tipped waste is open to the elements and can be blown or washed into the surrounding environment: to be caught in trees and bushes, contaminating agricultural land, and entering waterways, or is also blown directly into the ocean. Once in the marine environment, the plastic material also loses value as a recyclable material, both because it is exposed to degradation, but also because it is much more expensive to collect. Valorisation of plastic wastes should occur immediately after becoming waste, while the material value is highest, and the collection costs are lowest.

Open burning of waste in areas where alternative waste management solutions are absent or limited could be said to reduce the likelihood of waste entering the natural and marine environments, but the toll on air quality, human health, and soil and water quality means that it is not an attractive solution under any circumstance. Rather, open burning of waste is a further indicator of the absence of proper waste management and the urgent need for better solutions.



Solving the problem

Minimising marine litter means addressing the problem from multiple angles. Improving and expanding waste collection, treatment and disposal capacities is key to ensuring that generated waste is kept out of the environment, while building robust processes and markets for recycled (plastic) materials will reduce raw material consumption and provide incentives to improve capture rates. Taking a step back, preventing waste generation through eco-design approaches, designing for reuse rather than single use, and implementation of takeback systems can all help to reduce the quantity of waste that needs to be managed.

More specifically, in the area of waste and resource management, the following actions are essential components in minimising marine litter:

- **Sound collection for all:** Capturing waste before it enters the environment is fundamental to minimising marine litter. This can only be achieved through ongoing and significant improvements in waste collection infrastructure, particularly in developing countries.
- **Prevent uncontrolled dumping:** Once collected, waste needs to be properly treated and/or disposed of in sanitary and controlled conditions, so that it does not re-enter the environment.
- **Prevent littering and fly tipping:** Regulation and enforcement of waste management needs to address illicit disposal of wastes. Litter prevention should be supported by promoting best practices for industries, building and construction sector, municipalities and others. This can be helped by providing suitable and affordable waste collection infrastructure.
- **Close dumpsites near waterbodies** while providing waste treatment and disposal facilities for all: The most problematic dumpsites, particularly those close to waterbodies, should be closed and sealed and affordable alternatives established to halt the escape of wastes from waste management infrastructure into the environment.
- **Improving resource recovery:** increasing waste sorting and recycling capacities will make plastic recycling markets more robust.

Looking toward more structural changes in production and consumption systems that can support improved capture and recycling of problematic waste fractions, the key steps are:

- **Enhancing and capturing the value of used plastics:** minimising low-value single use items and capturing plastic wastes before they are exposed to degradation in the environment.
- **Designing for recyclability:** Designing and creating products from few material components, making them easy to disassemble and minimising the use of laminates, composites, and mixed materials.
- **Increasing effective collection and separation systems for waste plastics:** Ensuring that all wastes are captured within the formal waste management system and minimising contamination of plastic wastes through separate collection systems.
- **Creating stable and strong markets for secondary plastics:** activating both supply (collection, sorting, recycling) and demand (products from recycled materials) sides of the market for secondary plastics, building competences and networks.



- **Waste prevention:** designing for reuse, low-weighting (where achievable without affecting functionality nor rendering product single-use), and implementing takeback and deposit-return systems, design for non-leakage. In the long-term, ISWA strongly supports the needs to transition to circular manufacturing, use and recycling of plastics. This will ensure that plastic materials stay within the technical systems and do not leak into the environment.

ISWA's commitments

ISWA plans to play a leading role in solving the marine litter crisis by tackling the problem at source. In its role as advocate for better waste management globally, ISWA will:

1. Identify and share best practices on how the sector can offer preventative upstream solutions in different socioeconomic contexts.
2. Continue to promote waste prevention, waste minimisation and recycling efforts globally.
3. Contribute to addressing the knowledge gaps in identifying intervention hotspots, based on understanding the generation, flows and transformations of plastics marine litter.
4. Actively participate in other major efforts and international fora, including being present in major international events. In particular, ISWA will continue to support the United Nations Plastics Treaty process.
5. Assess the level of investment needed: Align efforts to obtain a detailed understanding of the levels of investment needed in solid waste management infrastructure to combat plastics marine litter.

The amount of waste entering the marine environment is a significant and visible global threat and demands broad reaching solutions that address local context while maintaining an international understanding of best practices and desired outcomes. ISWA continues to create knowledge and awareness, and help implementing solutions that improve waste management at a global scale, reducing the amount of waste that enters the environment and eventually, the marine ecosystem.

In the coming years, ISWA will continue to work tirelessly to improve waste management and minimise leaks, reduce wastes quantities, promote circularity in the waste management sector, while supporting governance and funding, and sustainable communities.

