

Connecting the Litter Dots

Conectando los Puntos de Desechos Marinos

Connectant les Points de Dechets Marins

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EXTENDED ABSTRACT

Introduction

It is estimated that 8 million tonnes of plastic enter the ocean each year. Approximately 70 percent of this litter ends up on the seafloor, 15% is found on beaches, and the remaining 15% floats on the water's surface. Few sources of pollution affect a wider area, or a larger number of people in the world, than marine litter. It reaches all corners of our oceans, and is negatively impacting the employment source of 350 million people worldwide, costing \$13 billion annually in damage to marine ecosystems. Floating and submerged litter can destroy important nursery habitats and serve as a substrate for transporting invasive and harmful species which can threaten marine diversity and disrupt local ecosystems. Litter can also cause losses in aesthetic values of tourist attractions which in turn can result in substantial economic loss.

The Wider Caribbean Region (WCR) is made up primarily of small islands and low-lying coastal states with a tropical climate and prone to natural hazards. The region's climate is conducive to year-round beach and water-related activities and therefore more solid waste and potential marine litter generation. The islands in the WCR face special challenges unique to Small Island Developing States (SIDS). These challenges include small land mass, poorly developed solid waste management infrastructure, vulnerability to extreme weather events, and the location of the majority of their populations within 10 kilometres of the ocean. Vital economic sectors such as tourism, fisheries, and maritime transportation are highly dependent on vulnerable coastal and marine ecosystems. Unfortunately, these ecosystems that underpin the economic stability of many of these countries are being severely degraded by pollution from land including from solid waste and marine litter.

Effectively addressing marine litter requires efforts to address its root cause - poor solid waste management. Over 424,000 tons of solid waste are generated daily in Latin America and the Caribbean and as much as two-thirds (275,000 tons) daily ends up in open-air dumps or in rivers. With over eight million metric tonnes of plastic entering the world's oceans every year, the estimate that there could be one ton of plastic for every 3 tons of fish by 2025, could lead to massive environmental, economic and health consequences.

For more than 30 years, the UN Environment (UNEP) Caribbean Environment Programme (CEP) has worked with Governments of the WCR to control, reduce and prevent pollution of the Caribbean Sea. The Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region, or Cartagena Convention, is the only legally binding regional agreement for the protection and development of the Caribbean Sea. As of 2015, 25 out of 28 countries in the WCR had ratified the Convention. Further to the Convention, in 1999, Caribbean countries established the Protocol on Pollution from Land based Sources and Activities (LBS), which focuses specifically on minimizing land based pollution. The LBS Protocol entered into force in 2012 and currently has 12 Contracting Parties.

Methodology

In support of the LBS Protocol, UNEP CEP developed a Regional Action Plan on Marine Litter (RAPMaLi) in 2007 and updated it in 2014. Under this Action Plan, several activities have been implemented to address marine litter. Most recently, a joint regional node for Marine Litter Management was established lead by the Gulf and Caribbean Fisheries Institute (GCFI). This regional node builds on the ongoing work of both organizations to improve marine litter and solid waste management by developing targeted project proposals, engaging a broad range of partners and identifying opportunities for practical on-the-ground interventions. Drawing on lessons learned, a more integrated approach is being proposed.

Results of the Work

Some of the activities undertaken by UNEP CEP at national and regional levels to support marine litter management include:

- i) Updating of the RAPMaLi to take into account emerging issues relating to plastics and microplastics and new regional and global commitments such as the SAMOA Pathway for SIDS and the Sustainable Development Goals,
- ii) Development and dissemination of educational material on the negative impacts of marine litter including fact sheets on plastics, solid waste and marine litter, and the development of an online interactive kids game on marine litter,

- iii) Launch of the Trash Free Waters Partnership - International at the 2015 Our Oceans Conference in Chile in collaboration with the Peace Corps, the US Environmental Protection Agency and the Governments of Panama and Jamaica,
- iv) Regional capacity building workshop in support of MARPOL Annex V: Special Area Designation for the Caribbean Sea, in coordination with the Regional Marine Pollution Emergency, Information and Training Centre (RAC-REMPEITC-Caribe and the International Maritime Organization (IMO), and
- v) Development of new integrated marine litter and solid waste project proposals.
- viii) Enhance public awareness on the environmental, economic and health impacts of solid waste and marine litter,
- ix) Enhance public-private partnerships to address marine litter, plastics and microplastics as part of an integrated solid waste management approach including focus on upstream sources of solid waste that end up as marine litter, and
- x) Encourage a shift towards a more circular economic model for the plastic production cycle that focuses on sustainable consumption and production practices including product innovation and approaches that consider the full life cycle of the products most likely to become waste and eventually marine litter.

Conclusions and Recommendations

Lack of regulations and/or poor enforcement of existing regulations, under-developed infrastructure, limited recycling opportunities; poor public attitudes and practices, and barriers to moving waste from one country to another, all contribute to inadequate waste management practices that ultimately exacerbate the problem of marine litter pollution. Effectively addressing marine litter and its impacts on valuable coastal and marine resources including on human health will require improved solid waste management at national and local levels, changing unsustainable production and consumption practices as well as greater recognition of waste as a resource. Some of the possible integrated actions that need to be taken include:

- i) Strengthen policy and legislative frameworks including consideration of bans/incentives and disincentives for problematic products and evaluation of the environmental and economic consequences of their alternatives,
- ii) Support the development and implementation of National Solid Waste and Marine Litter Action Plans and identify priority measures addressing waste management, land-filling, prevention measures, and awareness raising among all stakeholders (general public and private industry),
- iii) Improve integration and cooperation among the various branches and sectors of Government Ministries and Agencies (fisheries, tourism, environment, industry, port activities etc.),
- iv) Exchange experiences and best practices on marine litter management at local, national, sub regional, regional and global levels,
- v) Harmonize clean-ups to enable collection of relevant scientific data and information,
- vi) Improve solid waste management infrastructure with a focus on economic opportunities such as the use of waste as a resource including plastic recycling,
- vii) Reduction of single-use plastics including use of alternative packaging and products that result in reduced waste production and improved reuse and recyclability,

KEYWORDS: Marine litter, marine debris, solid waste, Caribbean, integrated waste management

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