Plastics Producers Solutions on Marine Litter: 2016 Progress Report

Soluciones de Productores de Plásticos Sobre Desechos Marinos: Informe de Progreso de 2016

Solutions de Producteurs de Matières Plastiques sur les Déchets Marins: Rapport D'Activité 2016

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EXTENDED ABSTRACT

In 2016 Ocean Conservancy published its 30th International Coastal Cleanup report. Unfortunately, after three decades, the report continues to demonstrate that too much trash ends up on our beaches and in our waterways and oceans. Marine litter is not only unsightly – it can harm ocean ecosystems, wildlife, and humans. Its effects have prompted governments, private enterprises, environmental groups, and countless citizens to take action.

It is generally accepted that up to 80 percent of marine litter originates from land as the result of litter and poor waste management, among other mechanisms. The increased use of plastics in a wider range of packaging and consumer products has led to an increase in the percentage of plastic in solid waste. While marine litter consists of all sorts of materials, many plastics float or are suspended instead of sinking to the ocean floor, making plastic marine litter more visible. Many plastics also are resistant to degradation and persist in the marine environment.

The use of plastics is growing because plastic delivers significant societal benefits, such as energy and resource savings, as well as innovations that improve health care, reduce food spoilage, increase safety, and improve quality of life. In addition to these benefits, plastics also have less impact on the environment than alternatives. A 2016 report by Trucost looks at the environmental costs of plastics versus alternative materials, based on the methodology used for the 2014 United Nations Environment Programme (UNEP) report. The study calculates that replacing plastics with alternative materials would increase environmental costs from $139 billion to $533 billion annually. The result is predominately due to the ability to use significantly less material for the same purpose as a result of plastics' favorable strength-to-weight ratios, which contributes to sustainability and provides environmental benefits throughout the lifecycle of plastic products.

Recent research is providing insights into the major sources of marine litter and how to reduce them. A study by Jambeck et. al. (2015) estimated that 4.8 to 12.7 million metric tons of plastic waste enter our oceans annually, with the origin of marine litter closely related to populations concentrated near oceans and the quality of waste management systems. While all nations contribute to marine litter, the report found that a disproportional amount of marine litter comes from only five rapidly growing economies: China, Indonesia, the Philippines, Thailand, and Vietnam. Based on this information, industry, non-governmental organizations, and policy makers are beginning to align with respect to the most effective solutions to reduce marine litter. For example, a recent report from the Ocean Conservancy's Trash Free Seas Alliance, "Stemming the Tide: Land-based strategies for a plastic- free ocean," provides guidance towards solutions to prevent marine litter. The report leveraged the expertise of McKinsey & Company to evaluate the right mix of locally appropriate mitigation strategies to collect and recover waste using basic waste management techniques before it enters the ocean.

Although plastics have been demonstrated to reduce environmental impacts compared to alternatives across a range of applications, these benefits are lost if plastic harms our natural environment. As a result, in March 2011, leaders from 47 plastics associations across the globe launched a "Declaration of the Global Plastics Associations for Solutions on Marine Litter," a public commitment to tackle the global problem of plastic litter in the marine environment. These industry leaders identified six areas for initiatives aimed at contributing to sustainable solutions: education, research, public policy, sharing best practices, plastics recycling/recovery, and plastic pellet containment. By December 2015, 260 projects had been planned, were underway, or completed; an increase of more than 165% in the number of projects since the Declaration was announced. The projects vary widely, from enhanced recycling to beach clean-ups, and from global research to awareness and education campaigns. As of May 2016, 65 associations representing 34 countries have signed the Global Declaration.

Plastics makers are also engaging the plastics value chains including brand owners and retailers; working with recyclers to advance recycling efficiencies; collaborating with communities in the U.S. to grow recycling; and supporting research to better understand how innovative new technologies can help close the loop by turning used plastics back into energy, fuels, and chemical feedstocks. While Jambeck et. al. highlighted the disproportionate amount of waste leaking into the ocean from Southeast Asian economics, many of the innovative approaches undertaken by the private sector to reduce marine debris are applicable and can be undertaken by Caribbean nations to reduce the leakage of plastic and other materials into the marine environment. Improved management of used plastics, to ensure they do not enter the marine environment, enhances the societal and sustainability benefits of plastics.

KEYWORDS: Marine litter, ocean plastic pollution

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