

The Role of Global Marine Litter Initiatives & Organisations in Tackling Marine Litter

M. Tsakona¹ & C. Velis²

¹D-Waste, Athens, Attica, 100 46, Greece

²School of Civil Engineering, University of Leeds, Leeds, 15780, UK

Keywords: marine litter, global, waste prevention, plastics

Presenting author email: maria.tsakona@d-waste.com

Marine Litter is a global concern, which receives growing attention from government, academics, NGOs, industry and the public since it greatly affects the environment, economy safety, and public health. It is believed that local and global environmental and resource efficiency failure led to the presence of marine litter around the world.

Whereas, the underlying causes of the problem have not yet sufficiently been explored and addressed, such underlying causes can be thought to widely relate with poor waste and resource management practices such as the acts of littering and dumping the waste items, intentionally and unintentionally, absence of suitable collection infrastructure in the low-income countries, and lack of sufficient value of secondary plastics within a resource efficient circular economy.

To date, the global activists, experts, policy makers and scientific communities have focused on marine litter, a complex and multi-dimensional problem, through different approaches. Research efforts have mainly directed on estimating and managing the vast amounts of marine litter in the world oceans, with emphasis around waste plastics items (and engineered primary microplastic beads), and on studying the various transfer mechanisms responsible for directing waste into the oceans. On the other hand, governments and NGOs have been more interested in activating tools and policies, which will prevent waste flowing into the sea. Source reduction, increase prevention efforts, clean-up activities, sensitization campaigns and mitigation practices have been promoted as the solution to prevent marine litter.

Currently the plastic industry and other private sectors have also get involved in providing sustainable solutions to reduce and/or mitigate plastic marine litter, which compromise more than 70% of marine litter. Introducing on-land capturing mechanisms for plastics and recycling of lost fishing gears are some of the emerging activities that have been undertaken from few leading enterprises worldwide.

This paper has been prepared as a mean to recognize and review, for the first time, existing International, Regional and National marine litter initiatives and organizations in the sense to assess current world efforts to tackle marine litter and to put forward the potential gaps and needs of the present marine litter management framework, and suggest solutions.

The study has focused on those initiatives and organizations, which directly address the marine litter problem; being their main or one of their core activities. However, there is a significant number of entities, which define marine litter as global problem, but their main goals and objectives are more related to marine conservation, coral reef re-generation and conservation of marine biodiversity.

Under this framework, a total of 70 marine litter organizations and 95 marine litter initiatives have been identified and their main goals, objectives and priority actions and activities have been reported. Other information such as scale of implementation, location, launched date, partners and involved stakeholders have been spotted for each organization and initiative.

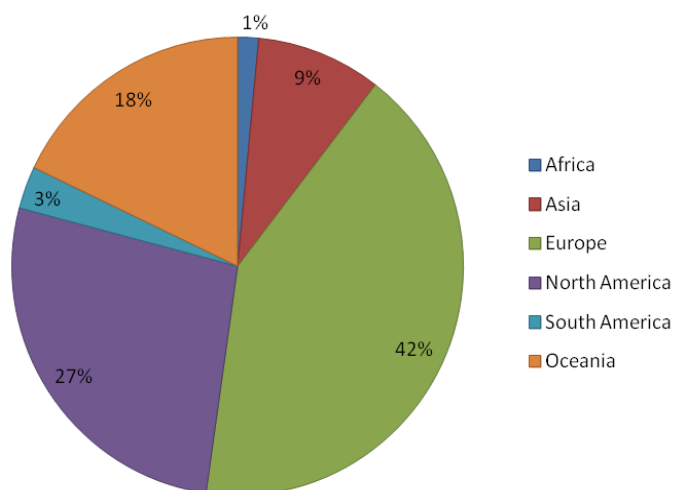
The data have been obtained during a two-month targeted web-based search, introduced into a database and undergone a statistical analysis. The analysis has focused on goals and mechanisms currently adopted by global marine litter initiatives and organizations to tackle marine litter, scale of implementation, geographic distribution (see scheme 1) and types of marine litter that receives the most attention. Finally, findings have been profiled as tables and charts.

The paper reviles that raising awareness, prevention and mitigation, resource recovery and information sharing are the main overarching goals of most initiatives and organizations while clean-ups and campaigns, are their main tools tackling marine litter. Although marine litter initiatives and organizations have set satisfactory goals, however there is a major gap in means of existing adopted mechanisms. There seems to be a limited

implementation of waste prevention and resource recovery schemes, and a lack of instruments in addressing plastic marine litter. In this sense, the paper highlights the need to work toward resource efficiency and economic development through waste prevention (e.g. reduce, re-use, recycle) and material recovery. In addition, in terms of scale of implementation the paper shows that most efforts are located in the developed world, leaving a big room for action in the developing world that needs to become a priority.

To fill these gaps, recommendations are proposed, including establishment of a global road map (locally adopted) of generic principles and major specific actions for massively mitigating the loss of value of secondary plastics into marine litter via sound waste and resources management.

Geographic Distribution of ML Organisations



Scheme 1. Geographic distribution of Marine Litter Organizations'