Federal Ministry for Economic Cooperation and Development

geocycle

Holcim

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Forging Alliances to Reduce Plastic Leakage into the Ocean in Egypt, Mexico, Morocco, and the Philippines

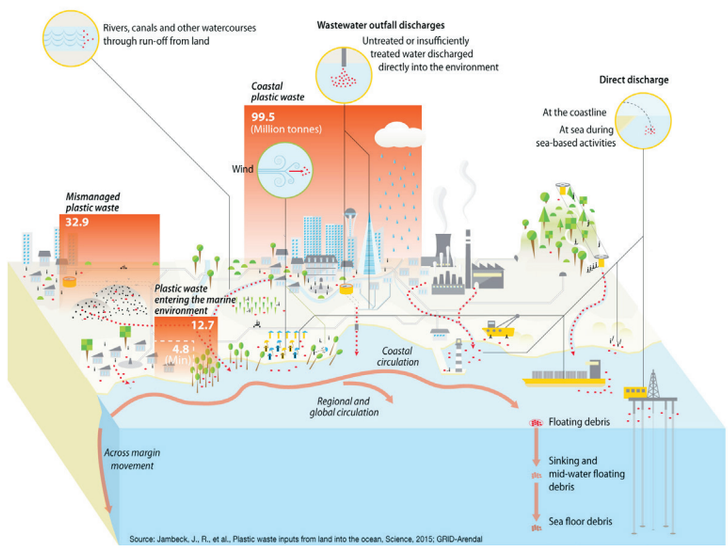
Project Brief

The Plastics Problem

Plastics have become a major source of pollution in waterways and the ocean. They pose risks to marine wildlife, ecosystem services, and biodiversity, which in turn affect the tourism and fisheries industries, resulting in threats to human livelihoods and potentially human health. Recent research has shown that in a business-as-usual scenario, the ocean is expected to contain 1 ton of plastics for every 3 tons of fish by 2025; and by 2050, more plastics than fish (by weight)[1]. Hence, preventing unmanaged plastic waste from reaching the sea is urgent.

Around 80% of marine litter comes from land-based sources. Marine litter is a result of waste disposal at illegal dumpsites close to waterways, leakage from waste transports or unsanitary landfills, and littering at beaches and coasts, as well as other pathways from human settlements to the sea. In 2014, some 311 million tons of plastics were produced, and only 14% of plastic packaging is collected for recycling globally.

Pathways and fluxes of plastics into the oceans



Source: UNEP/GRID. (2016), Marine litter vital graphics, 34.

Project name	Reducing Plastic Leakage into the Ocean
Commisioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Countries	Egypt, Mexico, Morocco, Philippines
Lead executing agency	LafargeHolcim, GIZ
Term	2018 – 2020

What We Do

Ideally, comprehensive plastic waste management plans should be developed in all countries to prevent, reduce, recycle, and eliminate the widespread disposal of plastics in the environment and the leakage of plastic waste into oceans. However, there are still materials that cannot be prevented or recycled, and the involvement of the private sector is needed.

The new strategic alliance between LafargeHolcim (LH) / Geocycle and GIZ, called *Reducing Plastic Leakage into the Ocean*, utilizes waste to come up with useful outputs that prevent plastic litter from reaching the coastal and marine environments.

The project encourages communities to implement environmentally-sound and socially acceptable waste reduction and management programs and uses co-processing as a viable and sustainable option for local plastic waste management. In co-processing, the energy and mineral content of waste is recovered for beneficial re-use as fuel for energy generation and product additives for manufacturing.[2]

The project also minimizes the social impacts of plastic litter in oceans by integrating the informal waste sector into formal sectors, thereby enabling the former to earn better wages, avail themselves of social protection services, and be legally employed in the job market.

With these broader environmental, societal, and business issues in mind, the project combines LH's technical knowledge with GIZ's development and policy expertise to jointly build up professional knowledge and capacity in the private and public sectors.

---

[1] World Economic Forum, *The new plastic economy: Rethinking the future of plastics* (2016), 17., https://newplasticseconomy.org/report-2016

[2] Geocycle. What is co-processing? Retrieved from http://www.geocycle.us/your-choices/what-is-co-processing.html



Contact person

KATHERINE VIÑEGAS
katherine.vinegas@giz.de

Reducing Plastic Leakage into the Ocean
ACB Building
DM Lantican Ave., College
Laguna 4031 Philippines

Project Objective and Approach

The project is aimed at initiating environmentally and socially sound solutions in four urban areas in Egypt, Mexico, Morocco, and the Philippines.

The following principles guide the Strategic Alliance in all four project countries:

- Focus on land-based sources and not on sea-based sources, as the former accounts for around 80% of marine litter, and the latter poses different challenges.
- Concentrate on improving regular solid waste collection and treatment systems instead of fishing litter out of waterways or the sea.
- Respect the highest locally available and economically feasible option in the waste treatment hierarchy. Priority should principally be given – in the following order – to waste avoidance, reuse, recycling, material recovery, energy recovery, incineration with energy recovery, incineration, and landfilling. Co-processing is considered material and energy recovery.
- Ensure that the project will not have a negative impact on the livelihood of the informal waste sector for the duration of this cooperation agreement.
- Engage with local relevant stakeholders and – potentially – with other interested local partners (i.e., other private companies that could join the local project), including through stakeholder dialogues in all project countries.
- Ensure long-term commitment of local parties to the developed waste treatment solution.
- Assess the net positive economic, environmental, and social impacts of this value chain in the local context.
- Ensure local economic feasibility: the developed solution should be implementable in the short/medium term in the local context and be financially sustainable. It should benefit all involved parties. The consequences on the local informal waste sector should also be addressed.
- Establish a sound monitoring system to demonstrate the reduction of plastic leakage into waterways and the ocean as a positive impact of the project.

Forging Local Partnerships for Reducing Plastic Leakage into the Manila Bay

It has been reported that more than half of the plastics that enter the ocean come from only five countries, including the Philippines.[3] The collect-and-dump system is still a common practice in the Philippines, the only aim of which is to maintain cleanliness and to address open dumpsites in communities. However, even this quick-fix solution is not enough to prevent wastes, specifically plastics, from polluting waterways and/or ending up in oceans.

The Strategic Alliance forged an agreement with Mother Earth Foundation (MEF), which is widely known for its successful training of barangays (villages), cities, municipalities, schools, church organizations, government and private offices, civic organizations, and business establishments all over the Philippines on how to properly plan and implement ecological waste management programs. MEF provides local, low-cost, and low-technology approaches and solutions that can be widely adopted and replicated.

For this project, MEF will implement activities in the City of Malabon as the pilot area, with the main goal of establishing a Zero Waste City in Metro Manila that will serve as model for the implementation of a holistic solid waste management program. This pilot/model shall be documented and replicated in other areas of the Philippines. Learnings from this model will be used to advocate for the review, enhancement, and development of local and national policies on Ecological Solid Waste Management (ESWM).

In addition, the program will empower both the City Government of Malabon and its barangays to become self-reliant through:

a. holistic environmental education,
b. creation of long-term action plans, and
c. government-community collaboration towards the implementation of a sustainable solid waste management program that will prevent or minimize plastic pollution in waterways and oceans in their respective communities.

[3] Ocean Conservancy and McKinsey Center for Business and Environment (2015). Stemming the tide: Land-based strategies for a plastic-free ocean. Retrieved from https://oceanconservancy.org/wp-content/uploads/2017/04/full-report-stemming-the.pdf

Published by
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH
Registered offices Bonn and Eschborn, Germany

Reducing Plastic Leakage into the Ocean
ASEAN Centre for Biodiversity Building
College, Los Baños, Laguna 4031 Philippines

T +63 49 536 2865
F +63 49 536 2865
www.aseanbiodiversity.org

Layout: Jimmy Hilario

As of: October 2018

GIZ is responsible for the content of this publication.

In cooperation with

On behalf of
Federal Ministry for Economic
Cooperation and Development (BMZ)

Division

Addresses of the BMZ offices

BMZ Bonn
Dahlmannstraße 4
53113 Bonn, Germany
T +49 (0)228 99 535-0
F +49 (0)228 99 535-3500

BMZ Berlin
Stresemannstraße 94
10963 Berlin, Germany
T +49 (0)30 18 535-0
F +49 (0)30 18 535-2501

poststelle@bmz.bund.de
www.bmz.de