CLOSING THE LOOP

Unlocking the informal economy in an inclusive circular economy approach

Over half of global land-based plastic waste leakage into the ocean originates in just five Asian countries. Yet, the contribution of informal waste management to reducing pollution, remains largely overlooked. The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) is gathering evidence in pilot cities in Asia to identify opportunities to return plastic resources into the production cycle by linking informal and formal waste processes.

This initiative is implemented by ESCAP's Environment and Development Division based in Bangkok, in close partnership with the Stockholm Environment Institute (SEI) Asia office and Kashtakari Panchayat based in Pune, India –the local partner of Women in Informal Employment: Globalizing and Organizing (WIEGO). The initiative will run from April to December 2018, building a foundation for future collaboration.

Addressing the plastic waste challenge in Asia

In rapidly developing South and Southeast Asia, countries are unable to manage the growing volumes of waste and pollution. Formal waste management systems remain mostly focussed on collection and disposal, achieving low recycling rates and limiting the ability of governments and local authorities to transform patterns of consumption and production through circular economies. Recycling activities and recovery of resources tend to be dominated by the informal sector that depends on revenue from the sale of materials. In Pune, the formal sector relies entirely on informal recycling activities which recover around 22 per cent (or 118,000 Mt) of material of total waste generated[1]. Although informal waste management, especially of plastics, limits pollution and emissions from landfills, reduces the costs and burdens on government, and provides income opportunities for large numbers of the urban poor, the potential environmental impact of linking informal waste pickers' activities to formal waste management processes remains underexplored. Meanwhile, the vast majority of plastic that is lost to the economic supply chain is causing a serious threat to biodiversity, ecosystems, human health and wellbeing, and public budgets.

Of the 8.3 billion Mt of plastic produced over the past decades, only nine per cent is recycled, while 79 per cent accumulates in landfills or the natural environment and up to 13 million Mt enter the ocean annually[2]. Over 80 per cent of marine plastic waste comes from land-based sources, making plastic the most common type of marine litter[3]. Plastic pollution is a transboundary issue—up to 95 per cent of plastic in our ocean is transported by ten major rivers, eight of which are in Asia[4]. Countries with fast growing markets and underdeveloped waste management systems in Asia may be responsible for as much as 60 per cent of plastic waste leakage, including India and Thailand among the top 15 polluters worldwide[5].

1. Scheinberg, A., M. Simpson, Y.E. Gupt et al. (2010): Economic Aspects of the Informal Sector in Solid Waste. Eschborn, Germany: GTZ.
2. Jambeck, J.R., R. Geyer, K. Lavender Law (2017): Production, use, and fate of all plastics ever made. http://advances.sciencemag.org/content/advances/3/7/e1700782.full.pdf; Jambeck, J.R., R. Geyer, C. Wilcox, T.R. Siegler, M. Perryman, A. Andrady, R. Narayan, K. Lavender Law (2015) Plastic waste inputs from land into the ocean. Science, Vol. 347, Issue 6223, pp. 768-771.
3. UNEP (2014) Valuing Plastics: The Business Case for Measuring, Managing and Disclosing Plastic Use in the Consumer Goods Industry.
4. Schmidt, C., Krauth, T., Wagner, S. (2017): Export of Plastic Debris by Rivers into the Sea. Environmental Science & Technology 51(21), pp. 12246-12253.
5. Ocean Conservancy (2017): Stemming the Tide: Land-based strategies for a plastic-free ocean. https://oceanconservancy.org/wp-content/uploads/2017/04/full-report-stemming-the.pdf; Jambeck, J.R., R. Geyer, C. Wilcox, T.R. Siegler, M. Perryman, A. Andrady, R. Narayan, K. Lavender Law (2015) Plastic waste inputs from land into the ocean. Science, Vol. 347, Issue 6223, pp. 768-771.

Ocean plastics cost the tourism, fishing and shipping industries in the Asia-Pacific Economic Cooperation (APEC) region alone USD 1.3 billion a year[6], while good management and recycling of plastic can save consumer goods companies USD 4 billion per year[7].

To meet this challenge, member States need to move toward closed-loop waste management systems to divert and recover precious plastic resources, reduce the quantity of waste in landfills leaking into the environment and return resources into the production cycle.

Project strategy

The project aims to make waste management processes more inclusive and circular to increase the rate of recovery and reduce the leakage of plastics. The goal is to deepen understanding of local informal and formal waste streams, capitalize on the opportunities where such waste streams intersect, and build multi-stakeholder partnerships that bridge the sectors. Measures to recover and recycle plastic are an essential element of a larger circular economy approach that internalizes the value of plastic and reduces marine litter.

Moving toward more inclusive and circular waste management systems will require a deeper understanding and acknowledgement of the environmental impact of informal waste picking, and exploration of options to link informal and formal waste management more strategically to maximize potential, taking into account the needs and interests of informal groups, policy makers, and other stakeholders such as businesses. The project focusses on two pilot cities with coastal proximity and high rates of informal waste management, Pune in India and Bangkok in Thailand.

Output 1: The project will perform a value chain analysis in pilot cities to identify opportunities to link the informal and formal waste sector through an evidence-based inclusive circular economy approach.

Activity 1.1: Develop two pilot case studies capturing evidence and good practices in pilot cities to inform city-level trainings and share knowledge of inclusive circular approaches at the regional level.

Activity 1.2: Develop and apply a practical guidance tool with evidence-based policy recommendations and a checklist for policy makers for an inclusive circular economy approach.

Activity 1.3: Conduct two city-level trainings that bring together identified stakeholders to develop policy recommendations for linking informal and formal waste management.

Output 2: Evidence generated will be shared at the regional level to strengthen South-South cooperation for an inclusive circular economy approach.

Activity 2.1: Organize one regional multi-stakeholder workshop to share knowledge gained through the practical guidance, case studies and city-level workshops.

Activity 2.2: Disseminate policy guidance and case studies in and beyond the region through the SDG Help Desk and other means.

In the longer term, the knowledge gained in pilot cities will help to generate funding opportunities to expand the approach in the region and research plastic waste streams and the environmental impacts of the informal economy in more depth to build capacity further.

6. "Understanding the Economic Benefits and Costs of Controlling Marine Debris in the APEC Region" (APEC Marine Resources Conservation Working Group 2009): http://publications.apec.org/publication-detail.php?pub_id=164
7. See 2.