

Establishing Sustainable PET Plastic Recycling in Sri Lanka

Polyethylene terephthalate (PET) plastics continue to contribute to environmental degradation across Sri Lanka. Fortunately, PET plastics are unique in that they can be recycled multiple times and reused to form fabrics, fibers, and other synthetic products. However, unsustainable systems and behaviors regarding the disposal of waste plastics result in PET plastics ending up in sensitive environments such as the ocean, coastlines, and wetlands. Incinerating household waste is common practice in Sri Lanka and the frequent burning of plastics leads to the emission of toxins that significantly affect air quality.



The Asia Foundation, with support from The Coca-Cola Foundation, Coca-Cola Beverages Sri Lanka Ltd., Environment Foundation Limited (EFL), and Eco Spindles (Pvt) Ltd., has been working together with local government authorities to develop a viable recycling option that enhances local government capacity and improves economic conditions for marginalized communities.

ESTABLISHING SUSTAINABLE RECYCLING

The establishment of the PET Collection Centers in partnership with the local government authorities in Biyagama, Galle, Vavuniya and Batticaloa is a significant achievement and an important step towards enabling local government to meet their mandate regarding the collection and management of solid waste. Local buy-in and ownership is critical to ensure collection of PET materials at scale and a win-win solution is achieved. The model established provides a blueprint for financially viable replication across other local government areas around Sri Lanka, enabling the process to be sustained into the future.

UNDERSTANDING PLASTIC RECYCLING

The collection and sorting of plastic materials in a systematic manner is critical to the recycling process. Most PET recycling companies in Sri Lanka are small-scale and process approximately 250 metric tons a month. There is room for the waste management sector to grow and support stronger connectivity between collectors and recyclers. Better collection practices can mitigate negative environmental impacts and can also provide livelihood opportunities for local communities. To promote understanding of how plastics are recycled in Sri Lanka, the Foundation supported the Industrial Services Bureau in conducting an analysis on recycling flows throughout the country, as well as the political, economic, and gender dynamics of solid waste management.

KEY ACTIVITIES

The Foundation's approach is to improve collection mechanisms, community engagement, and building relationships among the community, local government authorities, and individual recyclers. The Foundation

together with each local authority, designed a model which ensured that they can transform waste collection from a cost center to a revenue stream which will, at a minimum, help them break even. This is made possible by the willingness of recyclers such as Eco Spindles to pay for and transport baled plastic bottles. The model was designed in a way that local government authorities could fund it themselves, if successful, ensuring greater sustainability.

Each project location was equipped with a baling machine, where technical support and guidance was provided by Eco Spindles. Baling enables a larger volume of PET to be transported to the recycling plant with each load. It is important to note the contributions made by the respective local authorities during the establishment of each collection center, such as contributions towards construction costs of the center, improving quality of access roads, drainage and electricity facilities. The local authorities are focusing on promoting PET plastic collection through community stakeholders such as schools; aiming to ensure that collection becomes a habit within the wider community. Efforts are now underway to identify ways to boost collection. For example, through resolving operational issues, raising awareness among key stakeholders, and approaching neighboring local authorities to redirect their PET waste.

GROWING COMMUNITY AWARENESS

Due to limited or non-existent recycling services, many communities in Sri Lanka continue to dump or burn otherwise recyclable materials. EFL worked through local community-based organizations to convene outreach events in all project locations to inform community groups about the PET bottle collection process and both financial and environmental benefits.

Over 1,100 participants from the community and local authorities were involved in the range of awareness sessions conducted by EFL. Samples of Eco Spindles products were displayed throughout all the awareness sessions to demonstrate how waste can be converted into items of economic value through

concerted collection efforts.

The Foundation, through its Subnational Governance Program, also implemented a PET Points Rewards program in the four locations to promote collection and recycling of PET plastics by the community. The points system acts as an incentive, where points can be exchanged for school stationery.

ENABLING SUSTAINABILITY & REPLICATION

A training handbook has been developed to serve as a guide to establish and implement new PET Plastic Collection Centers in local authorities across Sri Lanka. The handbook gives an in-depth understanding of PET plastics and recycling and is available in all three languages. The handbook has been distributed among local authorities and other key agencies at national and provincial level with the aim of introducing a local government bylaw that will require them to establish their own collection centers.

Over the course of the project, partners from the private sector, public sector, and civil society were able to come together to establish a foundation for improved PET plastic collection through the network of local authorities in Sri Lanka. Strong support was received by the four local authorities, with the endorsement of national and provincial agencies. This initiative has highlighted a viable pathway for PET recycling in Sri Lanka that is mutually beneficial for local authorities and communities alike.

The Asia Foundation is a nonprofit international development organization committed to improving lives across a dynamic and developing Asia. Headquartered in San Francisco, The Asia Foundation works through a network of offices in 18 Asian countries and in Washington, DC. Working with public and private partners, the Foundation receives funding from a diverse group of bilateral and multilateral development agencies, foundations, corporations, and individuals.



HEADQUARTERS
465 California Street, 9th Floor
San Francisco, CA 94104 USA
Tel: (415) 982-4640
info.sf@asiafoundation.org

WASHINGTON, DC
1779 Massachusetts Ave., NW
Suite 815
Washington, D.C. 20036 USA
Tel: (202) 588-9420
dc.general@asiafoundation.org

www.asiafoundation.org