



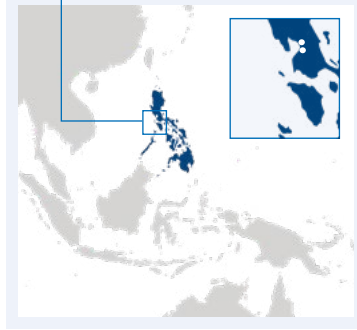
CASE STUDY — Manila & Parañaque, Philippines

Piloting Local Business Models and Scalable Best Practices that Promote the 3Rs and Build More Circular Economies

Case in Brief

Community efforts to recycle local waste play an important role in the recovery and collection of plastic—incentivizing community recycling efforts, building community awareness and engagement, and partnering directly with the private sector to purchase and return materials to the circular economy. To prevent plastics and other waste from entering the environment, USAID’s Clean Cities, Blue Ocean program—the Agency’s flagship program to address ocean plastic pollution under the Save our Seas Initiative—backs innovative, locally-led solutions in its ten focal countries that promote and facilitate the 3Rs—reduce, reuse, and recycle. One way is through the support of local grantees that are piloting new models that help to strengthen underdeveloped local recycling systems and build circular economies. Through this approach, grantees in the Philippines and other Clean Cities, Blue Ocean focal countries are finding new ways to educate and incentivize communities to practice the 3Rs, integrate informal workers to increase recycling rates and improve their livelihoods, and engage the private sector to promote a circular economy.

Philippines Manila & Parañaque



At a Glance

The world is producing **twice as much plastic** as two decades ago, and only 9 percent is successfully recycled.¹

The Philippines generates over **43,680 metric tons of waste every day²**—and over **half of that is uncollected.³**

1 OECD (2022), Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options, OECD Publishing, Paris, <https://doi.org/10.1787/de747aef-en>.
 2 Hartman G and M Donnelly (2021), Women in the Waste Sector: Unlocking Global Climate Gains through Local Action, <https://urban-links.org/insight/women-in-the-waste-sector-unlocking-global-climate-gains-through-local-action/>.
 3 Sea Circular (2020), Country Profile: The Philippines, <https://www.sea-circular.org/wp-content/uploads/2020/04/SEA-circular-Country-Briefing-THE-PHILIPPINES.pdf>.



In the Philippines, approximately 2.7 million metric tons of plastic waste are generated annually.
Photo: CORA for Clean Cities, Blue Ocean

Background

In developed countries, recycling is part of the formal municipal sector; while in developing countries it is considered a resource-recovery business—not a solid waste management service.⁴ Many rapidly urbanizing cities are unable to provide waste collection services to the entire city, which often results in a reliance on the informal sector and community efforts to collect the rest. For these local initiatives to succeed, they must be designed to be sustainable—emphasizing the need for models with sound operational and financial business plans, relationships with the private sector, and community buy-in.

One of the biggest challenges in creating economically feasible recycling markets is insufficient aggregation, or collection, of materials—that plastic waste is not collected in large enough volumes, is of poor quality, or not clean enough to add value to the recycling process. To build circular economies that address growing global plastic pollution, nations need to have the capacity to implement the 3Rs, including effective community-level systems for collecting and recycling waste and strong recycling markets that see the materials returned back to the economy, to be used as a resource.

In the Philippines, approximately 2.7 million metric tons of plastic waste are generated annually, about twenty percent of which enters the ocean.⁵ Efficient recycling systems are critical to reducing the Philippines' and other nations' plastic pollution, but **other key obstacles impede success:** inadequate local waste systems; insufficient investment in locally-developed, scalable innovations; uncoordinated public and private sector efforts; and growing use of cheaper, single-use plastics, especially in poorer communities.



“This work is very important to me because it engages me to care for the environment. Don't buy sachets because they are one of the biggest problems we have in waste. Let's unite efforts to clean our environment for our safety.”

– Rose Anne Lacaba
Eko-ikot Champion

4 International Institute for Environment and Development (2022), Community-led Waste Management at Scale, www.iied.org/community-led-waste-management-scale

5 World Bank Group, 2021. Market Study for the Philippines: Plastics Circularity Opportunities and Barriers. East Asia and Pacific Region Marine Plastics Series. © World Bank, Washington, DC. <https://openknowledge.worldbank.org/entities/publication/61e2e030-9dc2-5013-a8ff-7565919e17ee>. License: CC BY 3.0 IGO.

ABOVE
Eko-ikot Champion Rose Anne Lacaba
Photo: CORA for Clean Cities, Blue Ocean

Our Approach

USAID forges strategic partnerships to pilot scalable community models that promote waste aggregation best practices, the 3Rs, and circular economies.

Local programs and markets for recycled materials strengthen waste management systems in developing countries. They provide essential waste services in areas not reached by formal municipal collection efforts. **USAID’s Clean Cities, Blue Ocean supports innovative, locally-led initiatives that address ocean plastic pollution before it reaches the ocean. USAID partners with local grantees** who are piloting scalable solutions that promote best practices and help to build underdeveloped recycling systems.

Local Models in Action: The Philippines

The Plastic Credit Exchange

With USAID support, Philippines-based organization [the Plastic Credit Exchange \(PCX\)](#) expanded its **Aling Tindera model** in Metro Manila in December 2020 to incentivize women business owners (“aling tinderas”) who run neighborhood convenience stores, also known as “sari-sari” stores, to have these businesses also serve as centralized collection points for plastic waste. “Sari-sari” stores are community mainstays that carry everything from daily food items to household goods and are conveniently located in areas where residents, local waste collectors, and junk shop owners can easily sell their cleaned plastic for cash. By joining the Aling Tindera network, women increase what their stores have to offer while earning additional money to supplement their income. At the same time, they become key players in the recycling supply chain. **This waste-to-cash exchange generates additional income for both store owners and community members while reducing the environmental impact of plastics. It also creates opportunities for women in the circular economy not only as actors, but as environmental champions.**

Each Aling Tindera location is conveniently located and fully equipped with a container van, scale, and baler to compact the plastic and prepare it for recycling. Collected plastic waste is picked up on a regular basis by PCX and sold back into the manufacturing loop where it is recycled or upcycled into new products. Private sector partners, including Nestle, Colgate-Palmolive, and PepsiCo, finance the plastic buy-backs through the purchase of “plastic-offset credits,” offsetting companies’ plastic production and reducing their environmental footprint. The Aling Tindera program is one part of PCX’s larger organization, which can offer ongoing support to sustain the model—to ensure end markets are sufficient and pricing is competitive.



Ms. Lorme, an Aling Tindera and store owner, helps mitigate ocean plastics while increasing her income in Manila.
Photo: PCX for USAID Clean Cities, Blue Ocean

“Before, my neighbors threw their plastic waste in the river. Now, they bring their plastic waste to my Aling Tindera station and earn money from it.”

– Lorme Villarba
Aling Tindera

Communities Organized for Resource Allocation

In Parañaque City, USAID partnered with local grantee [Communities Organized for Resource Allocation \(CORA\)](#) to advance the 3Rs and reduce the flow of plastics into Manila Bay. Through a USAID grant, CORA developed and launched its **Eco-Ikot Center model—a circular center for solid waste management**. The Eco-Ikot Center is women-led, managed by a dedicated group of Circular Center Women Champions, who received training to run the center, as well as serve as community ambassadors. The center serves as a collection hub for local communities to exchange their recyclable waste for eco-credits and was intentionally sited at an existing material recovery facility—a facility that receives and separates recyclables to be sold to an end buyer or “offtaker”—in order to fully integrate into the local government waste system. The center accepts recyclables from residents in exchange for credits that can be redeemed for various items like fresh vegetables, e-cash, or other items. The eco-credits, particularly fresh vegetables, are especially important for low-income households and provide an incentive for the community to collect and recycle household waste.

Once the recyclable materials are collected in sufficient volumes, the center cleans and diverts all viable recyclables to local offtake organizations (e.g., MIRR Junkshop and Sentinel Plastic Manufacturing Corporation) that turn waste into marketable products, such as furniture made from low-value plastic sachets. The center focuses on building partnerships with local stakeholders to promote the center; for example, the support of the local government that provided a rent free space. The center also relies on marketing its services to local customers and launched three community-based caravan roadshows to introduce and scale community-led recycling efforts to other areas in Parañaque City.

People in the Philippines throw away 163 million plastic sachets daily. CORA is one of the few organizations that collects hard-to-recycle plastic sachets and sells to offtake partner Sentinel Plastic Manufacturing Corporation, which turns the waste into marketable products like furniture.⁶

“What I like about being an Aling Tindera is that I get additional earnings from it. When the plastics are finally hauled, I see the fruits of my labor. Sometimes I bring my grandchildren to the mall as a treat.”

— Irene Sarmiento
Aling Tindera



Business owner Irene Sarmiento
Photo: Donnelly for Clean Cities, Blue Ocean

⁶ GAIA. Plastics Exposed: How Waste Assessments and Brand Audits are Helping Philippine Cities Fight Plastic Pollutions.

Impact

Through local grantees, USAID is piloting local business models that build and enhance local recycling systems and positively impact communities.

USAID's partnerships with local non-governmental organizations and businesses are advancing the 3Rs and circular economies. These community-led recycling initiatives strengthen solid waste management services; increase the amount of plastic that is collected and recycled, thereby reducing pollution; generate income, especially in poorer communities; and further gender equality by focusing on women entrepreneurs.

To date, USAID's Clean Cities, Blue Ocean local grantees' pilots have resulted in numerous benefits:

- **Diverts recyclable materials out of the waste stream**

Community-led recycling initiatives have contributed to materials management and recovery—diverting plastic from entering the environment and back into the circular economy. PCX's Aling Tindera collection hubs accept various low- and no-value single-use plastics that are rarely collected and otherwise would not have a market value. This lowers GHG emissions by reducing the need for new plastic manufacturing and ensuring existing plastic is recycled responsibly. Through PCX and CORA's models combined, approximately 178 metric tons of plastic and other low-value waste—the equivalent of nearly 18 million plastic bottles—have been reduced, recovered, or diverted from disposal.

- **Strengthens local recycling systems for a circular economy**

Community-led recycling initiatives help collect and aggregate waste, a prerequisite for a sustainable circular economy. For example, by developing partnerships with the private sector and local government, materials aggregated through CORA were bought by private sector partners at agreed upon, fair rates to manufacture new products, like furniture, and reduce the burden on local government waste systems.

- **Fosters community engagement and education**

Community members that are active in local recycling businesses act as community ambassadors and environmental champions, encouraging residents to change their behavior and actively participate in recycling efforts. To foster community participation, door to door community outreach was coupled with large public events, held in popular malls and community gathering places.

- **Empowers women**

Local business models such as PCX and CORA were designed to empower women, augment their incomes, expand their networks



By the Numbers

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18 million
plastic bottles.

ABOVE

CORA volunteers during a beach cleanup in June 2021.
Photo: CORA for USAID Clean Cities, Blue Ocean

and business opportunities, and assume leadership roles within their communities—recognizing the barriers that women typically face in the waste sector.

Key Recommendations

Establishing sustainable, scalable recycling models is dependent on the local context and needs to consider the business environment and volume of waste. Key takeaways from these pilots include establishing tailored recycling strategies, financial incentives, accessible locations, sufficient end markets, as well as the need to provide ongoing financial planning and business support and to prioritize engagement with local governments and private sector partners.

- **Provide partners with financial planning and business training to ensure success**

When developing a locally-led recycling initiative, ensure that local businesses or community partners have the financial planning and business support and training needed to effectively manage recycling operations at the community level—to ensure the business model considers the scale of operations that is sustainable beyond the life of the seed funding.



Circular Center Women Champions at the launch of the CORA Eco-Ikot Center in July 2022.
Photo: CORA for Clean Cities, Blue Ocean

- **Offer financial incentives**

Design a straight-forward local recycling strategy that provides financial incentives to motivate community members and spark their interest and engagement to segregate and return their plastic waste. Offer fair, living wages to those supporting the model to encourage their participation and improve their livelihoods. Be sure to tailor any pilot project with solutions that address and respond to community needs.

- **Ensure end markets are sufficient and pricing is competitive**

Identify offtake organizations (e.g., Sentinel Plastic Manufacturing Corporation) as early as possible that can reliably provide reliable and fair compensation for the recyclable materials collected, ensuring the organization is able to pay a living wage to those collecting and processing the recyclables and pay other overhead costs to sustain its operations.

- **Expand operations to include an aggregation hub, where appropriate**

To be a successful recycling initiative, the ability to aggregate sufficient volumes of waste is critical. As the operation grows, for example with the

Aling Tindera network, consider expanding to include an aggregation hub to improve collection and separation efficiencies.

- **Identify accessible collection locations**

With “network” projects such as Aling Tindera, ensure that participating store locations are accessible to the community and within acceptable walking distances.

- **Engage public and private stakeholders throughout the life of the project**

Ongoing collaboration between the public and private sector, and the buy-in and engagement of local governments, is essential to the long-term success of recycling systems. While community-led recycling models can significantly advance local circular economies, they must seek participation from all actors in the waste value chain.

Related Resources

[Women in the Waste Sector: Unlocking Global Climate Gains through Local Action](#)

[From the Field: Empowering Women Entrepreneurs to Combat Plastic Pollution in the Philippines](#)

[CORA Video](#)



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Above Photo: Aling Janine and Richard De Guzman, PCX Standards and Compliance Manager, pose in front of her container van. Photo: PCX for Clean Cities, Blue Ocean

Cover Photo: CORA's Circular Center presents a new model for low-value plastic recycling, founded and staffed by women. Photo: CORA for USAID's Clean Cities, Blue Ocean