Circular solutions for plastic pollution

A micro-business-driven solution for zero-waste communities
About the case study

This good practice case study is part of a series of knowledge products developed by the SEA circular project to showcase exemplary market-based solutions that bring about transformational changes in the way plastic is managed in the value chain. This series captures circular economy approaches, ranging from innovative business models to behaviour change initiatives, to address plastic pollution. These approaches form part of the SEA circular project’s “circularity framework for the plastic value chain”.

Circularity framework – plastic value chain
Background and problem

In 2018, the plastic industry contributed over USD 2.3 billion to the Philippine economy,\(^1\) producing low-cost consumer goods for over 11.3 million poor and middle-income households.\(^2\) This staggering consumption pattern, coupled with a growing population, equates to 163 million pieces of plastic consumed each day - a major contribution to the estimated 2.7 million tons of plastic waste each year.\(^3\) Such heavy consumption of single-use plastics has led to the Philippines being labelled a “sachet economy”.

Like its neighbouring developing countries, a large share of the Philippines’ fast-moving consumer goods (FMCGs) are accessed through sari-sari stores.\(^4\) There are an estimated 800,000 of these micro-businesses\(^5\) conveniently located in communities across the country. The sale of goods in tingi, or small portions, and the flexibility of store owners to extend credit on goods with short settlement periods make these micro-businesses convenient, accessible and durable. This convenience encourages people to buy goods more often at the expense of the environment, as does their socioeconomic status and purchasing power.

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4. Sari-sari stores are small neighbourhood convenience stores in the Philippines offering sari-sari, a Filipino term meaning a variety of commodities, in tingi (small portions) or by piece.
Given the nature of sari-sari stores, their social and economic role in grass-roots communities, and the staggering amount of plastic consumption, they offer a significant opportunity to adopt circular practices.

That is why the Philippine Reef and Rainforest Conservation Foundation, Inc. (PRRCFI) came up with the concept of “Wala Usik”, meaning “nothing is wasted”.

However, the operating model of these stores poses challenges to circularity. Purchasing preferences need to be shifted away from single-use plastic packaging, and commodities sold in small volumes without sachets and with better price points. Purchasing limits on sari-sari store customers, and reduction and management of post-consumer waste at the source are some other inherent challenges.

Wala Usik means nothing is wasted
Interventions

Since 2017, PRRCFI has been working on solutions by ideating, prototyping and testing the “Wala Usik Economy” with redesigned micro-businesses with multiple stakeholders. One of the main takeaways was the importance of localizing circular economy principles for homegrown businesses (literally), which led to the term “Wala Usik”. Foreign terms such as “zero waste” or “circular economy” alienated or overwhelmed the target stakeholders.

This localization took the form of a redesigned micro-business model of Wala Usik sari-sari stores, which later expanded to carinderias or small eateries, restaurants, and cafes in the neighbourhood. With social preparation and experiential learning activities, PRRCFI selected and supported eight existing sari-sari stores to participate in a multi-stakeholder design thinking process in which their stores became prototypes of Wala Usik innovations.

This led to prototyping the eight stores into microrefilleries for selected products sold in small increments (by the milliliter or gram). The United States Agency for International Development (USAID) funded the upfront costs of transition in the first prototyping cycle, and the European Union (EU) and the German Agency for International Cooperation (GIZ) funded transition costs for 11 more micro-businesses. This was replicated in two stores on a completely different island (Island Garden City of Samal and San Isidro, Davao Oriental) through support from the World Wide Fund for Nature (WWF) Philippines under its Plastic Smart Cities project.

PRRCFI tested the Wala Usik prototypes for financial feasibility, community acceptability and the number of plastics prevented at the source, with monitoring tools in place. Lessons learned from this ongoing design thinking provided insights and intelligence to further solve the sachet dilemma at sari-sari stores, for critical players in the value chain all the way up to FMCG producers, regulating bodies and local suppliers of goods.
Challenges

The implementation of Wala Usik involves actions and results in five key areas: (1) food/materials safety and regulatory compliance, (2) customer convenience and acceptability, (3) profitability, (4) business operations support and (5) waste reduction. While Wala Usik models such as refilling are set up with technical and financial support, consumer adoption requires behaviour change for this to succeed.

- **Behaviour change** was identified as a significant challenge. Wala Usik shifts consumers to a new way of buying and expects increased responsibility in terms of washing and cleaning reusable containers, and bringing reusable containers when purchasing and refilling from Wala Usik sari-sari stores.

- The added cost of investing in a reusable container for purchasing is a challenge. The convenience of buying sachets was replaced by buying reusable glass or plastic containers.

- Irregular replenishment of FMCG stock – consumers were limited to the stock available in the Wala Usik sari-sari stores which was not always their brand of choice and caused dissatisfaction.

PRRCFI used different approaches through innovative and creative practices in marketing and collaboration with community leaders, local government units and schools to address the challenges. Logistics and reverse logistics had to be adapted from the bottom up to address limitations in the supply chain, which in turn were designed to deliver FMCG stock-keeping units (SKUs) in sachets.

To address the limited FMCG choice in Wala Usik sari-sari stores, several FMCG companies participated in the projects by rolling out some technology or a mechanism, but only experimentally and not to scale due to regulatory barriers. These barriers include industrial manufacturing standards that micro-refilling activities may not be able to comply with due to a lack of capacity, appropriate training and certification, or another reason. These often relate to quality control as products in sari-sari stores have to withstand humidity, heat, sunlight exposure, potential pests and possible contamination from the refilling process.

PRRCFI is active at the national level in continuing dialogue with the Food and Drugs Administration (FDA) and the Department of Trade and Industry to mainstream and streamline refilling standards. However, there are still gaps in ensuring food and materials safety while also reducing waste. The Wala Usik prototypes serve as learning models for all stakeholders, since these challenges remain and will affect any attempt to eliminate or reduce sachets from business models.
Results

Using the baseline data sets, 45,240 pieces of different types of plastic, or 159 kg of plastic waste, were prevented from going into the oceans. This was extrapolated from the purchases made through Wala Usik sari-sari stores and other businesses adopting circular practices.

The volume of FMCG products was converted into the equivalent number of sachets to show the environmental impact of transitioning to the Wala Usik model. Over six months, each store could eliminate a thousand sachets, and the figure could be higher if the model is scaled up to multiple stores and more SKUs. Given its potential, Wala Usik has become the subject of national and regional dialogues with policymakers and producers, especially about pipeline legislation on single-use plastic regulation, extended producer responsibility and the National Plan of Action on Marine Litter. Collaborations with local producers have also emerged, prompting local government to look into enabling local industries to participate in the circular economy.

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Lessons learned

The lessons learned from implementing the Wala Usik sari-sari store model offer important insight for stakeholders on optimizing this solution going forward. They can be summarized as follows:

Although behavioural change was identified as a primary challenge in implementing Wala Usik, the continuous encouragement and engagement of all the key stakeholders is essential.

- Wala Usik sari-sari store owners’ consistent engagement contributed to a mindset change and helped influence consumer behaviour. This led to a reduction in plastic waste in the community, increased willingness among consumers to accept products such as condiments in their own containers, and in one case led to support for the store owner’s implementation of “no-styro cups”.

- Cooperation with FMCG suppliers paved the way for soda supplied in glass bottles instead of polyethylene terephthalate (PET) bottles, which was widely well received.

The results are influenced by the proximity of Wala Usik sari-sari stores and their relationship with buyers. One of the influencing factors of consumer preference of one store over another is the flexibility of store owners on utang or credit, which caters to families below the poverty line, those experiencing food shortages, or those struggling to make ends meet daily.

There has been significant evidence of strong community awareness when it comes to using single-use plastics, thanks to a community-based and participatory approach to deploying the Wala Usik model.
Moving forward

The lessons learned over almost five years prompted PRRCFI to pursue the production of a toolkit for micro, small and medium-sized enterprises (MSMEs) implementing zero-waste and circular business ideas. It is an illustrated handbook with case studies on at least 10 circular innovations that can be replicated in the MSME sector, with tips, lessons learned, challenges to anticipate and address, and support information. The document will be published by mid-2022. This should help franchise the idea for a significant number of communities in the country.

PRRCFI has also initiated collaboration with national-level bodies such as the Department of Environment and Natural Resources and the Department of Trade and Industry, with schools and people’s organizations for community education and mobilization, and with other NGOs such as WWF, Save Philippine Seas, Circulo, the Association of Negros Producers and the microfinancing institution of the Negros Women for Tomorrow Foundation, Inc., to build a strong, multifaceted support network. In addition, side initiatives in cooperation with brands such as SM Supermalls, Nestlé, Colgate-Palmolive, Human Nature and EcoNest are paving the way for future scaling and replication.

We thank PRRCFI for sharing details of their exemplary innovations in the SEA Circular project’s series on the plastic value chain.

The SEA circular project Reducing marine litter by addressing the management of the plastic value chain in Southeast Asia is implemented by the UNEP Regional Office for Asia and the Pacific and the Coordinating Body on the Seas of East Asia (COBSEA), with funding support from the Government of Sweden. SEA circular aims to reduce and prevent plastic pollution and its impact by working with governments, businesses, civil society, academia and international partners. The initiative promotes market-based solutions and enabling policies to transform plastic value-chain management, strengthens the science base for informed decision making, creates outreach and raises awareness. The project leverages COBSEA’s regional mechanism to tackle the transboundary challenge of marine litter in a harmonized manner.

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