Kuha sa Tingi

BRINGING BACK SUSTAINABILITY INTO FILIPINO TINGI CULTURE

GREENPEACE
Philippines

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COVER:
A small store sells refillable household cleaning items via the "Kuha sa Tingi" programme, which is supported by the local government in Quezon city, Philippines.
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RIGHT:
Joy Jabaga, a sari-sari store owner from Payatas sells refillable household cleaning items via the "Kuha sa Tingi" programme.
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Kuha sa Tingi:
Bringing back sustainability into Filipino tingi culture

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INTRODUCTION

Reuse and refill systems: Zero Waste solutions to the plastic crisis

Tackling the global plastic pollution crisis requires systemic change. In the Philippines, where corporations are responsible for an estimated 164 million pieces of sachets disposed daily,[1] reuse and refill systems are proving to be among the effective solutions in addressing the problem.

The plastic pollution crisis is one of the most pressing global issues. Aside from the ubiquity of plastic waste, plastics have negative impacts across their entire lifespan. From the extraction of fossil fuels, production and disposal, plastics affect the environment, human health and the climate, aggravating inequities and perpetuating injustices.

Utilized in almost every industry and household, more than 460 million tons of plastic are produced worldwide every year.[2] Meanwhile, millions of tons of plastic waste end up in landfills, are burned, or leak into the environment.[3] In addition to its links to environmental contamination and the climate emergency, plastic pollution also poses a threat to public health. Communities are not spared from the effects of plastic pollution as serious illnesses stem from chemicals and microplastics in the air we breathe, the food we consume, and other materials we come into contact with[4]—and that is merely scratching the surface. Plastic pollution is a massive systemic issue that goes beyond national borders. Scientists have found evidence of plastics everywhere—from the highest peaks in the world to the deepest trenches in our oceans. Microplastics have also been found in the air[5], soil and water systems[6], making the detection of trace microplastics in our bodies and food unsurprising. It is now imperative to ask: is its unrestricted use worth the consequences on people, our climate, and the environment?

Single-use plastics—straws, sachets, plastic bags, packaging, cutlery, cups, and bottles, to name a few—are among the main culprits. As the name suggests, single-use plastics are designed to be used once, and then thrown away; they are not intended to be reused, and are difficult to recycle. The disposability of plastics has become symbolic of a capitalist economy dominated by single-use, disposable products.[7] However, in the past few decades, people have realized that this comes with a hefty price tag: long-term consequences to the environment and health.

In the Philippines, as well as in other developing countries such as Indonesia and India, sachets are a big part of the problem. These small, sealed, single-use plastic packets produced by fast-moving consumer goods (FMCG) companies are present in every supermarket and sari-sari (variety) store. Sachets account or up to 52% of the residual plastic waste stream.[8] It is estimated that every year, the average Filipino uses 591 sachets, while over 59.8 billion sachets are thrown away.[9] Unfortunately, there is no public data on how many sachets companies produce annually. But as the Philippines is a strong market for fast-moving consumer goods, multinational corporations and other large retailers have taken advantage of the appeal of single-serve retail in the form of sachets in order to sell commodities in tingi (small quantities) at price points accessible to low-income households. Regrettably, after profiting from the sale of sachets, corporations have taken no responsibility for the plastic waste their products generate.

[1] GAIA, Plastics Exposed: How Waste Assessments and Brand Audits Are Helping Philippine Cities Fight Plastic Pollution, 2019, https://www.no-burn.org/wp-content/uploads/Plastics-Exposed-2nd-Edition-Online-Version.pdf.
[2] OECD, 'Plastic pollution is growing relentlessly as waste management and recycling fall short, says OECD' (2019 figures), 2022. https://www.oecd.org/environment/plastic-pollution-is-growingrelentlessly-as-waste-management-and-recycling-fall-short.htm
[3] Ellen McArthur Foundation, Plastics and the Circular Economy Deep Dive, https://www.ellenmacarthurfoundation.org/plastics-and-the-circular-economy-deep-dive#:~:text=A%20staggering%208%20million%2 0tonnes,we%20design%2C%20use%2C%20and%20reuse.
[4] Center for International Environmental Law, Plastic & Health: The Hidden Costs of a Plastic Planet, 2019, https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf
[5] Torres-Agullo A, Karanasiou A, Moreno T, Lacorte S. Overview on the occurrence of microplastics in air and implications from the use of face masks during the COVID-19 pandemic, 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8520475/
[6] Osorio Ezra D., Tanchuling Maria Antonia N., Diola Ma. Brida Lea D., Microplastics Occurrence in Surface Waters and Sediments in Five River Mouths of Manila Bay, 2021. https://www.frontiersin.org/articles/10.3389/fenvs.2021.719274
[7] Heinrich Böll Foundation, Plastic Atlas: Facts and figures about the world of synthetic polymers, 2019. https://th.boell.org/sites/default/files/2019-11/Plastic%20Atlas%202019.pdf
[8] GAIA, Plastics Exposed: How Waste Assessments and Brand Audits Are Helping Philippine Cities Fight Plastic Pollution, 2019, https://www.no-burn.org/wp-content/uploads/Plastics-Exposed-2nd-Edition-Online-Version.pdf.
[9] GAIA, Regulating Single-Use Plastics in the Philippines: Opportunities to Move Forward, 2020. https://www.no-burn.org/wp-content/uploads/Philippine-Policy-Brief-on-SUPs-Ban-1.pdf

A small store displays a refilling station as part of the "Kuha Sa Tingi" or KST program in Barangay West Crame in Quezon City, Philippines.
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Fortunately, the need for change is not lost on Filipinos. In 2019, a nationwide survey commissioned by the Global Alliance for Incinerator Alternatives (GAIA) on Filipinos' opinions on plastics yielded encouraging results. The majority of Filipinos are open to buying products in recyclable or refillable containers instead of in sachets.[9] Among those surveyed, seven (7) out of 10 said they would consider more sustainable packaging for food condiments (e.g. cooking oil, soy sauce, vinegar), while four (4) out of 10 would do so for personal care items (e.g. shampoo, conditioner) and liquid household cleaning products (e.g. laundry detergent).[10]

At its current trajectory, plastic production is forecasted to reach 1.1 billion tons globally by 2050.[10] The scale of the plastic pollution crisis has debunked the widely held belief that recycling is a viable solution. In 2017, a study showed that of the seven (7) billion tons of plastic waste generated globally, only nine (9) percent has been recycled.[11] Even plastic producers who continue to promote recycling have publicly recognized that it is not an economically or technically feasible solution to the plastic crisis.[12] This clearly shows that recycling, waste management, and other end-of-pipe approaches are ineffective in curbing the problem. Instead, plastic pollution needs to be tackled at source: plastic production needs to be drastically reduced. This is where refill and reuse systems, such as *Kuha Sa Tingi*, play a major role.

Addressing the plastic pollution crisis effectively requires complementary policies and measures which apply interventions in the upstream and midstream phases[13] of the plastic lifecycle. Upstream solutions implemented in these phases address plastic pollution at source and result in reduction of plastic production, as well as systemic changes in manufacturing, material selection, product design, and business models that eliminate single-use plastics from operations.

As solutions which impact the upstream and midstream phases of the plastic lifecycle, reuse and refill systems do not only contribute to waste avoidance and reduction,[14] they also provide multiple benefits across the plastic lifecycle. First and foremost, reuse and refill systems result in the reduction of plastic production and fossil fuel extraction as they replace single-use business models dependent on plastic. This results in a corresponding reduction in the demand for material resources, and the emission of greenhouse gasses.[15] When combined with other upstream solutions, reuse and refill systems can contribute to addressing plastic pollution at its root and lead to changes in production and manufacturing that enable single-use plastics and other waste to be designed out of existing business models, and create a Zero Waste system.

In the Philippines, Greenpeace campaigns for Zero Waste approaches which aim to conserve resources through responsible production, consumption, reuse, and recovery of all products, packaging, and materials without burning them, while preventing discharges to land, water, and air.[16]

As a Zero Waste solution, reuse and refill systems are steadily gaining traction in the Philippines. These packaging-free schemes aim to overhaul the current routine of wasteful consumption perpetrated by single-use plastics. Instead of selling products packed in single-use plastic packaging, producers and retailers can now dispense products in reusable bottles or containers whenever people buy commodities such as food condiments, personal care items, and household cleaning products.[17]

While several projects using reuse and refill systems have already been initiated by the private sector, social enterprises, and various LGUs, there is still plenty left to be done. To effectively displace sachet production in the country, refilling stations must be able to match the scale, cost and convenience of sachets, keeping in mind that sachet purchase and use tend to be higher among lower socio-economic brackets.[18]

[9] GAIA, Regulating Single-Use Plastics in the Philippines: Opportunities to Move Forward, 2020. https://www.no-burn.org/wp-content/uploads/Philippine-Policy-Brief-on-SUPs-Ban-1.pdf
[10] Roland Geyer, Chapter 2 - Production, use, and fate of synthetic polymers, Plastic Waste and Recycling, 2020. https://www.sciencedirect.com/science/article/pii/B9780128178805000025
[11] Roland Geyer et al. ,Production, use, and fate of all plastics ever made, Sci.Adv.3,e1700782, (2017). https://www.science.org/doi/10.1126/sciadv.1700782
[12] Center for Climate Integrity, The Fraud of Plastic Recycling, 2024. https://climateintegrity.org/uploads/media/Fraud-of-Plastic-Recycling-2024.pdf
[13] The upstream phase covers extraction and the chemical processes which involve the production and consumption of virgin plastic polymers. The midstream phase includes product design, manufacturing of plastic products and use.
[14] World Economic Forum, Future of Reusable Consumption Models, 2021.
[15] Rethink Plastic Alliance, Realising Reuse, 2021. https://rethinkplasticalliance.eu/wp-content/uploads/2021/07/Realising-Reuse-Final-report-July-2021.pdf
[16] Zero Waste International Alliance, Zero Waste Hierarchy of Highest and Best Use 8.0, https://zwia.org/zwh/
[17] GAIA, Sachet Economy, Big Problems in Small Packets, 2019, https://www.no-burn.org/wp-content/uploads/2021/11/Sachet-Economy-spread-.pdf.
[18] GAIA, Sachet Economy, Big Problems in Small Packets, 2019, https://www.no-burn.org/wp-content/uploads/2021/11/Sachet-Economy-spread-.pdf.

THE CASE FOR REUSE AND REFILL SYSTEM

The true extent of the plastic crisis

Plastic pollution is an environmental justice issue. A closer look at the risks associated with plastic's full lifecycle shows that the plastic crisis intersects with other environmental and social problems. This not only creates notable harms for people and nature, but also exacerbates inequalities in affected communities. Reduction of plastic production and reuse must therefore be the priority actions to address this problem.

From health threats to carbon emissions, the plastic crisis presents problems on multiple fronts. To better understand the full extent of the issue's effects, the following areas can be examined further:

- **Climate**
  Plastic poses a threat to vulnerable communities and ecosystems due to its contribution to the climate crisis. A 2021 study revealed that the global greenhouse gas emissions of the plastic lifecycle in 2015 amounted to 2.2 billion tons of CO2 equivalent (CO2e) or 4.5% of global greenhouse gas emissions.[19] According to the Organisation for Economic Co-operation and Development (OECD), 90% of greenhouse gas emissions of the plastic lifecycle come from plastic production and conversion into products, which covers fossil fuel extraction, refining, and product manufacturing.[20] Researchers identified increased production in coal-based, newly industrialized economies as the main cause of plastic's rising carbon emissions. Greenpeace has also identified the importance of mitigating emissions from the extraction and transportation of fossil fuel feedstocks used in the production of 99% of plastics.[21]

- **Health**
  Plastic is responsible for health risks and increasing exposure to hazardous substances. A study by the Center for International Environmental Law (CIEL) concluded that plastic threatens human health on a global scale.[22] The findings revealed the distinct risks to public health in each phase of plastic's lifecycle—from the moment fossil fuels are extracted to the point of disposal and waste management. These risks include exposure to carcinogenic and other hazardous by-products, food system contamination, and leaching of toxic chemicals onto the environment and into human bodies.

- **Nature and biodiversity loss**
  Plastic pollution contributes to nature and biodiversity loss through the destruction of ecosystems and direct harm to wildlife. It does so through a number of effects which include aggravating climate impacts, toxic contamination of ecosystems, ingestion of plastic waste, and the disruption of the growth and development of flora and fauna. A 2020 review of scientific literature found that 354 different species had become entangled with marine plastic, while ingestion of marine plastic has been documented in 701 different species.[23]

- **Social inequalities**
  In a report, the United Nations Environment Programme (UNEP) goes into detail about how the plastic pollution crisis results in environmental injustices and disproportionately affects vulnerable and marginalized populations across the globe.[24] Women, for example, have higher exposure to toxic substances in plastic because of the burden of household responsibilities and the use of disposable feminine hygiene products. Communities that are predominantly populated by low-income groups or people of color are also more affected by the plastic crisis because production and incineration facilities are more often built in these localities.

[19] Cabernard, L., Pfister, S., Oberschelp, C. et al. Growing environmental footprint of plastics driven by coal combustion. Nat Sustain 5, 139–148 (2022). https://doi.org/10.1038/s41893-021-00807-2
[20] Organisation for Economic Co-operation and Development (OECD). Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options, 2022. https://doi.org/10.1787/de747aef-en
[21] Greenpeace USA (2021). Climate Emergency Unpacked. https://www.greenpeace.org/philippines/publication/10918/the-climate-emergency-unpacked/
[22] Center for International Environmental Law (2019). Plastic & Health: The Hidden Costs of a Plastic Planet. https://www.ciel.org/plasticandhealth/
[23] Susanne Kühn, Jan Andries van Franeker, Quantitative overview of marine debris ingested by marine megafauna, Marine Pollution Bulletin, Volume 151, 2020, 110858, ISSN 0025-326X, https://doi.org/10.1016/j.marpolbul.2019.110858
[24] United Nations Environment Programme, NEGLECTED: Environmental Justice Impacts of Marine Litter and Plastic Pollution, 2021. https://wedocs.unep.org/bitstream/handle/20.500.11822/35417/EJIPP.pdf

Reuse and refill: solutions for people and planet

01. Upstream solutions

Because of the negative impacts at every stage of the plastic lifecycle, it is necessary to respond to the plastic pollution crisis at source. Governments must prioritize upstream solutions. These solutions are positive interventions which occur in the upstream (e.g. the extraction of fossil fuels and its processing into plastic material) and midstream phases (e.g. production) of the plastic lifecycle.[25] These interventions result in the reduction of plastic production and, ideally, the elimination of single-use plastics and other disposables. Upstream solutions cover material selection, product design, business models, distribution or transport, and a product's intended use.[26]

By transforming problematic systems, and materials and packaging involved, interventions in the upstream phases reduce or eliminate harmful impacts that stem from the beginning of a supply chain. Upstream solutions also prevent or decrease negative outcomes in subsequent stages, intervening before environmental, social, and health problems can develop.

On the other hand, downstream approaches are interventions applied after the problematic plastics have already been produced, and have turned into waste. These include so-called "waste management" approaches such as the collection and recovery of plastics, and its disposal into landfills, or its burning in waste incinerators or cement kilns. These approaches at best overlook, and at worst exacerbate, plastic's negative effects on health, climate and nature in the mid- and downstream phases.

Inaction on the most carbon-intensive phases in plastic's value chain—plastic production and conversion into products (product manufacturing)—will negatively impact the Philippine government's efforts to mitigate climate change, protect public health, transition to a circular economy, and tackle plastic pollution. This will also detract from the government's commitments associated with multilateral environmental agreements (MEAs) and obligations under future MEAs such as the Global Plastics Treaty. Without policies mandating targets and supporting the development of upstream solutions, plastic producers are effectively being given a free pass to continue their unrestrained production and polluting activities at the expense of the people and the environment.

02. How reuse can address plastic pollution, climate change, and environmental degradation

The above shows that upstream measures such as reuse and refill models, reusable packaging within a reuse system, and reduction in plastic production, are significantly more effective in comparison to waste management. Several recent studies have also tried to quantify this.

A 2021 analysis conducted in Europe that compared refilled reusable packaging and a typical single-use bottle for detergent showed that the refill system studied had 12 times less environmental impact than a single-use system in the household care category.[27] Another study demonstrated how upscaling reuse to replace 50% of plastic packaging in the food and beverage sector by 2030 can potentially decrease resource usage by 27.1 million tons. This would create savings for the industry after initial investment, require less extraction for virgin plastics or raw materials, and prevent the generation of waste.[28]

In terms of waste prevention, one report by the World Economic Forum estimates that shifting 10-20% of plastic packaging to reuse models could potentially reduce 45-90% of plastic ocean waste and 10-25% of plastic landfill waste. Based on data and targets from sources including Greenpeace, the report found that shifting 40-70% of plastic packaging to reuse systems can potentially eliminate all ocean plastic waste and cut down landfill plastic waste by 50-85%.[29]

[25] The upstream phase covers extraction and the chemical processes which involve the production and consumption of virgin plastic polymers. The midstream phase includes product design, manufacturing of plastic products and use.
[26] Ellen MacArthur Foundation. Upstream Innovation. https://www.ellenmacarthurfoundation.org/upstream-innovation/overview
[27] Rethink Plastic; Break Free from Plastic (2021). Realising Reuse: The potential for scaling up reusable packaging and policy recommendations.https://rethinkplasticalliance.eu/wp-content/uploads/2021/07/Realising-Reuse-Final-report-July-2021.pdf
[28] Greenpeace (2021). "The world is ditching plastics with reuse and refill laws and practices" https://www.greenpeace.org/international/story/51843/plastics-reuse-and-refill-laws/
[29] World Economic Forum (2021). The Future of Reusable Consumption Models. https://www3.weforum.org/docs/WEF_IR_Future_of_Reusable_Consumption_2021.pdf

03. Defining reuse and examining existing reuse models

The “Making Reuse a Reality” report by the University of Portsmouth, in collaboration with Break Free from Plastic defines “reuse” as a system in which reusability is a deliberate objective and in which the packaging item is used multiple times for its originally intended purpose.[30] In addition, the International Organization for Standardization (ISO) Reuse Standard notes that the term reuse only applies when reusable packaging is used several times for the same purpose for which it was originally conceived, and it must be designed to last a minimum number of rotations within a reuse system.[31]

Considering these various definitions, the researchers at University of Portsmouth defined a reuse system for packaging as “a comprehensive system for the multiple rotations of reusable packaging which remains within the ownership of the system and is loaned to the consumer.”[32] Reuse will have a positive environmental impact once the sustainability breakeven point has been exceeded.[33] To surpass that point and be environmentally sound, researchers recommend return rates at 90%.[34]

With rising concerns around plastic pollution and increased demand for sustainable business models from consumers, it is only reasonable to begin investing in, adopting, and advancing reuse models.

A variety of reuse and refill systems are already implemented worldwide with commercial success. In fact, reuse models have existed as a part of people’s lives well before the introduction of single-use plastics during the last century.

In the Philippines, our tingi-tingi culture originated with reusable containers and refilling from larger storage receptacles. Purchasing goods at local markets involved using bayongs, bags or baskets woven using bamboo or durable plant leaves.

There are many kinds of reuse systems. These may vary depending on the need, the products, local practices, etc. Some models are enumerated below:[35]

1. **Refilling at/from home** Consumers refill reusable containers at home with purchased goods. Examples for this are the use of concentrated versions of products in reduced packaging to be diluted with water, refilling of printer ink cartridges, and mobile refilling stations with vehicles equipped with dispensers.
2. **Refilling on the go** - Consumers purchase or provide their own reusable containers and refill at dispensing points at retail outlets. Once the product runs out, the containers are cleaned at home to again be used in refilling. Examples are dispensing systems in groceries and Zero Waste stores.
3. **Return from home** - Consumers get a product delivered to their residence, and either swap the used containers or return empty containers to the business at a later date. Containers are cleaned by the business. Examples for this model include Loop[36] in the US and Europe; and
4. **Return on the go** - Consumers purchase a product in a reusable container and return the empty container to the store or drop-off point. The business is responsible for cleaning the containers. Examples are deposit-return schemes employed by beverage companies using glass bottles, and water refilling stations in the Philippines.

[30] Europen (2021). Essential Requirements for Packaging in Europe. The European Organization for Packaging and the Environment. https://www.europen-packaging.eu/wp-content/uploads/2021/08/EUROPENGuide-to-Using-the-CEN-Standards.pdf
[31] ISO (2012). ISO 18603:2013(en) Packaging and the environment — Reuse. https://www.iso.org/obp/ui/#iso:std:iso:18603:ed-1:v1:en
[32] University of Portsmouth (2023). Making Reuse a Reality. https://plasticspolicy.port.ac.uk/wp-content/uploads/2023/05/Making-reuse-a-reality-report_GPPC.pdf
[33] Dixon, C., & Geßner, L. (2022). Convention on Plastic Pollution; Plastics Treaty Essential Elements: Reuse. Environmental Investigation Agency. https://eia-international.org/wp-content/uploads/Essential-Elements-Reuse-SINGLES.pdf
[34] University of Portsmouth (2023). Making Reuse a Reality. https://plasticspolicy.port.ac.uk/wp-content/uploads/2023/05/Making-reuse-a-reality-report_GPPC.pdf
[35] Lendal, A., & Lindeblad Wingstrand, L. (2019). Reuse Rethinking Packaging. Ellen MacArthur Foundation. https://emf.thirdlight.com/file/24/_A-BkCs_aXeX02_Am1z_J7vzLt/Reuse%20%E2%80%93%20rethinking%20packaging.pdf
[36] Loop website. https://exploreloop.com/

Sachet away: time to bring back sustainability into Filipino tingi culture

Filipino consumers are drawn to sachets because they are conveniently within reach in any supermarket, grocery, or sari-sari store. Sari-sari stores, in particular are present in almost every community or neighborhood in the Philippines—even in far-flung parts of the country. As its name suggests, sari-sari stores sell a variety of goods, many of which are basic commodities packed in sachets displayed around the store. These sachets are also referred to as tingi-sized goods, stemming from the centuries-old tingi (piecemeal) culture attributed to Filipinos. From the Spanish colonial period up to the post-war period, history reports that Filipinos have long had a penchant for piecemeal purchases.[37] However, a closer look at the traditional sari-sari store will show that tingi culture, which directly translates to "retail culture," actually finds its roots in sustainable practices.

Evidently, Zero Waste is not a novel concept to Filipinos. Before sachets and other single-use plastics became prevalent, small volume retail meant customers would bring reusable containers to sari-sari stores whenever they shopped for commodities. Tingi culture was all about purchasing only the exact volumes customers needed, which ensured that no goods would be wasted, no packaging would be thrown away, and customers enjoyed these goods at affordable prices.

Unfortunately, corporations took advantage of the tingi culture and transformed it into a wide scale profit-making scheme by introducing sachets into the market and targeting buyers from lower socio-economic classes. A study conducted in Metro Manila's three highest waste-generating cities (Quezon City, Manila, and Caloocan), and which involved 1,200 residents (three-fourths of the respondents were earning less than or equal to the minimum wage),[38] found that 42% of the respondents purchased sachets daily, 18% did so four to six times a week, and 40% purchased sachets once to thrice a week. According to GAIA, sachets dominate the residual waste stream in both rural and urban areas, but the consumption of sachet products is usually higher in urbanized areas than in rural ones.[39] GAIA estimated that the average national per capita sachet consumption is 1.64 pieces per day, but in highly urbanized cities such as Quezon City, the figure rises to as much as six pieces per day.[21]

Despite the high volume of production of this waste stream, sachets remain unregulated. While more than 300 local government units, from barangays to provinces, have passed ordinances regulating the use of single-use plastics, many of these have simply focused on plastic shopping bags, either by imposing levies on their use, or banning them completely in favor of more sustainable materials.[40] There are no policies to control sachet production.

Again, looking at the current scale of plastic pollution, intervention in the upstream stages of the lifecycle of plastics is imperative to mitigating the impact of plastic pollution on the environment, climate, and community well-being. This reinforces the importance of alternative delivery systems centered on reuse and Zero Waste practices. Examples of these are the refill, return, and reuse business models utilized by Zero Waste stores, the sale of packaging-free goods, and disposable-free operations (e.g. no plastic bags, cutlery, and containers). With the problem of sachets in focus, sari-sari stores, where tingi culture as we know it today is very much alive, are one of the best places to start.

[37] Joseph A. Sy-Changco et al., "Managerial Insights into Sachet Marketing Strategies and Popularity in the Philippines" - Asia Pacific Journal of Marketing and Logistics 23, no. 5, 2011. https://doi.org/10.1108/13555851111183129.
[38] Arlen A. Ancheta et al., "The Influence of Demography of Filipino Consumers towards Their Purchase Preference for Sachet Products" (Unpublished Manuscript, 28 January 2019) (Manila: Research Center for Social Sciences and Education (RCSSED), University of Santo Tomas, 2019).
[39] GAIA, Sachet Economy, Plastics Exposed: How Waste Assessments and Brand Audits Are Helping Philippine Cities Fight Plastic Pollution, 2019, https://www.no-burn.org/wp-content/uploads/PlasticsExposed-3.pdf
[40] Philippine Department of Environment and Natural Resources, "National Solid Waste Management Status Report (2008-2018)," 2018. ,


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sa Ting
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ABOUT KUHA SA TINGI

Introducing *Kuha sa Tingi* project: An alternative delivery system in communities

A project spearheaded by Greenpeace Philippines in collaboration with Innovation Catalyst (formerly Impact Hub Manila) and various local government units, *Kuha sa Tingi* seeks to reduce, and ultimately displace, the use of sachets by developing a Zero Waste alternative delivery system (ADS) with competitive pricing. With tingi culture at the heart of the project, *Kuha sa Tingi* integrates refilling stations in community-based stores such as sari-sari stores and other small retail shops all over the country. A reimagining of small-volume retail as the Zero Waste model it was intended to be, the project produces a business model and service design of a fully operational ADS that caters to community-based stores. The business model is easily replicable as its broad inventory, adaptable design, accessibility, and affordable prices provide consumers with practical and environment-friendly options to replace products packed in sachets.

Kuha sa Tingi employs an approach that considers and protects existing stakeholders. Instead of establishing new physical Zero Waste stores that may displace existing micro-enterprises, the ADS system is introduced to stores that have already been established and operated by locals.

This not only influences the practices of small stores and their customers, but also equips micro-enterprises with the knowledge and tools necessary to adapt to emerging sustainability trends around Zero Waste, ensuring they are included in the transition to circular models.

Upon completion of the project, Greenpeace aims to develop a replicable model that local governments and other institutions may use in environmental initiatives, livelihood programs, and other businesses. Greenpeace believes that the same model should inspire companies to rethink the design of their operations and make significant changes to their retail and distribution practices, notably by phasing out sachets.

LEFT:
Nelia Cruzada from Brgy. Pansol sells refillable household cleaning items via the “Kuha sa Tingi” programme, which is supported by the local government in Quezon city, Philippines, in an effort to fight the plastic pollution as the city supports a Zero Waste circular economy.
© Jilson Tiu / Greenpeace

RIGHT:
Refillable household cleaning items via the “Kuha sa Tingi” programme sold by a teacher at a daycare center.
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IMPLEMENTING KUHA SA TINGI IN SAN JUAN AND QUEZON CITY

Kuha sa Tingi was conceptualized in 2019. In iterating this ADS model, the first consideration was the needs of the community (i.e. low or competitive pricing, simplified transactions, accessibility, etc.) in order for refilling to be feasible and affordable for all socio-economic sectors. Based on community assessments and discussions with store owners conducted after the COVID-19 lockdowns in 2020, the process and logistics were designed to be as uncomplicated and easily accessible as possible. For example, the equipment can be interchanged and will not require power or too much space. Signages and labels are made of canvas so they can be washed and reused. While the supplies for the project are currently sourced from a domestic supplier that sells products at low price points, an alternative for other areas may be to select a local producer or collaborate with the city government through livelihood and development programs which train community members to produce unpackaged or liquid household and personal care products.

As of early 2024, two pilots have been launched in San Juan and Quezon Cities. The support of the local governments has been crucial in jumpstarting the project. The local governments of the City of San Juan and Quezon City were vital in community organizing, providing platforms to campaign for the reuse and refill system, assisting in the selection of stores, and engaging with their owners. To facilitate the integration of the reuse and refill system in the sari-sari stores in these cities, Greenpeace held orientations on the plastic pollution crisis and reuse-based solutions for the stakeholders. Technical briefings for the project were also provided to decision-makers.

As will be discussed in the succeeding parts of the report, the outcome of the two pilots have proven that *Kuha sa Tingi* is also viable in other communities.

Pre-implementation community sensing and assessment

Nationwide research

Since *Kuha sa Tingi* is a response to the growing global plastic pollution crisis fueled by the sachet problem in countries such as the Philippines, in 2021, Greenpeace commissioned a scoping study using both qualitative and quantitative techniques to best understand the most viable methods for the project. The study involved surveying and interviewing groups of Filipino Millennials (25 to 35 years old) and Generation Z youth (Gen Z, 18 to 24 years old). A total of four focus group discussions with six (6) respondents each, and three (3) in-depth interviews with three (3) respondents were conducted. Surveys via mobile phone and in-person interviews were conducted to gather quantitative data from 750 respondents from four key cities in Luzon, Visayas, and Mindanao.

Qualitative and quantitative analysis: What Filipino Millennials and Generation Zs think of the plastic crisis

The results of the study found that these Filipinos are more concerned with socio-political issues than the global plastic crisis. In a developing country like the Philippines, it is not surprising that issues such as food security, poverty, and politics are of greater concern. This, however, does not mean that Filipinos are oblivious to the plastic crisis and its effects. Oftentimes, the plastic crisis becomes relevant to Filipinos whenever the country is struck by natural disasters such as flooding and extreme weather conditions. As one Millennial respondent put it, “it seems like there has to be a disaster before people really think and act on it.”

> **We really do not have a choice because even the smallest things [are made of] plastic.”**
> – Gen Z respondent

While the respondents admit that they are aware of the harm of plastic to the environment, this often gets overlooked because of their dependence on plastic. From food items to cleaning products, almost every basic commodity is sold in single-use plastic packaging. A typical Filipino household’s pantry, refrigerator, or bathroom is usually stocked with single-use plastic bottles, wrappers, plastic bags, and sachets. As a result, consumers think that there is no alternative and that they have no choice but to buy products in single-use plastic packaging.

> **The alternative is expensive. Most people cannot afford a sustainable lifestyle.”**
> – Gen Z respondent

> **We already got used to it because it is accessible, convenient, and cheap.”**
> – Millenial respondent

The respondents also highlight the cost and convenience of single-use plastic. Putting food on the table and making ends meet are bigger priorities. Millennial and Gen Z participants from lower socio-economic households opt to buy sachets because these are all they can afford, but not many are aware that sachets are actually not recyclable and have negative long-term consequences.

At present, the problem of single-use plastics in the country is no longer limited to the products purchased by consumers in supermarkets or groceries. With Millennials and Gen Zs spending much of their time online, e-commerce has quickly become part of daily living. While more than 50% of respondents limit their online purchases to once a month or less, Millennials and Gen Zs from higher socio-economic classes (A and B) are significantly heavier shoppers, with online purchases averaging twice a week. Among the top online purchases for both Millennials and Gen Zs are clothes and fashion accessories as well as food and drinks delivery. Sixty nine percent (69%) of Gen Zs and 58% of Millennials purchase clothes and fashion accessories online, while 60% of Millennials and 52% of Gen Zs have food and drinks delivered online. Most, if not all, these products are packed in single-use plastics, or come with other single-use implements such as cutlery. Despite the prevalence of single-use plastics and the steady growth of e-commerce and its associated plastic waste, the fact that plastics are rarely recycled is still new and surprising information to many.

It is worth noting that discussing the effects of the plastic crisis increases people's interest and involvement in the problem as it makes it more tangible. But even while the issue ranks low in their priorities, Filipino Millennials and Gen Zs still have a relatively good understanding of the plastic crisis. While they point out that large corporations and the government should take responsibility and make the necessary changes to mitigate the plastic crisis, they also believe that they can be part of the solution. In the National Capital Region, 46% of Millennials and Gen Zs from socio-economic classes A and B claim that they have consciously started reducing their single-use plastic usage.

Consumer survey in Pasig City

At the start of the project, another survey was conducted in Pasig City in 2021 in partnership with the Sikapin Development Center, and the Center for Popular Empowerment. As one of the potential sites for the project, Pasig City was chosen for this initial survey. Greenpeace and its partners selected a barangay with community members who were frequent sari-sari store patrons.

Almost 84% of 450 respondents answered that they often buy food products such as soy sauce and vinegar from sari-sari stores. For non-food essentials, 91% of respondents purchase shampoo and laundry products from sari-sari stores. When asked about the prices they often paid for food products, for most products, more than 50% of respondents said that they bought products in smaller quantities, which meant that they would only pay between PHP 1.00 to PHP 20.00. This trend is similar for dishwashing soap. For some products including shampoo, bath soap, laundry products and juice, more than half of respondents indicated they buy these in a higher price range (above PHP 20.00), indicating larger quantities. In spite of some variation with certain products, overall, the data shows that the majority of the respondents buy tingi or small amounts on a regular basis.

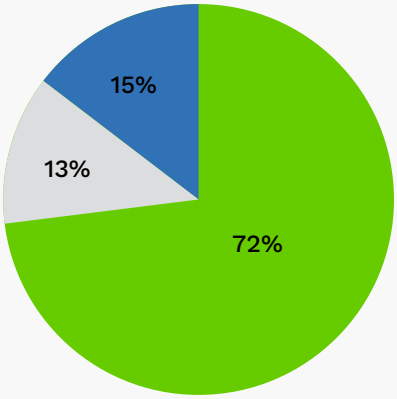
When asked about the factors they consider in purchasing their necessities, more than half of the respondents answered that they often prefer certain brands. Sixty one percent (61%) of respondents signified that this was due to the price points of the brands, availability, quality, and brand loyalty. Nonetheless, when asked if they would be open to other brands should their preferences be unavailable, the majority of the respondents answered positively.

Shifting the conversation to alternative delivery systems, when asked if they would be open to trying reuse and refill systems in sari-sari stores, the majority of the respondents indicated willingness to try due to budgetary and environmental concerns. Others also showed willingness for reasons such as curiosity. Many expressed their openness to reuse and refill systems because of ease of use, convenience, a chance to use reusable containers, cleanliness, and belief that it would help society.

WILLING TO TRY REFILL / REUSE SYSTEM IN SARI-SARI STORES

Yes No Did not answer

Of the total respondents in the 2021 Pasig community survey, 72% said they were willing to try a refill or reuse system in sari-sari stores.



Despite the willingness of most, some were apprehensive towards reuse and refill systems due to worries about health and cleanliness, the quality of the products, and the familiarity with sachets and plastic packaging. For respondents who are also sellers, they were mostly concerned about the added burden of reuse and refill systems. To convince them to shift to alternative delivery systems, respondents answered that cleanliness, cheaper price points, convenience, and quality are what they would primarily consider. Many also expressed that the products should have labels indicating the brand name, manufacturing date, expiration date, and the ingredients used. In addition, the cleanliness of the store and expediency of service with the reuse and refill system were also mentioned as important to the respondents.

Supplier identification

During this phase, the project's product supplier was identified. Innovation Catalyst spoke to close to 50 manufacturers of various products. While all of them were able to provide quality products, it was a challenge to find a partner that would work within the budget the team aimed for. This challenge applied to both the products and containers for the project. In the end, taking time to find the right partner was key in getting the numbers right and effectively validating the business model.

In screening potential solutions providers, Innovation Catalyst considered the following:

(1) Certifications
(2) Pricing flexibility
(3) Collaborative nature of the provider

Chemlux Incorporated, a halal and ISO-certified solutions provider for hygiene and cleaning needs of hotels, restaurants, commercial establishments, and industrial facilities, was able to provide the necessary products and certifications required by the team.

Kuha sa Tingi in the City of San Juan

In March 2022, Greenpeace Philippines and Innovation Catalyst signed a Memorandum of Agreement (MOA) with the City of San Juan. After months of preparation, the pilot was launched in November 2022, marking the firstpilot city for *Kuha sa Tingi*.

After the MOA signing, the community profiling for San Juan began. With the help of the Public Information Office, the City Environment and Natural Resources Office (CENRO), and the Urban Poor Affairs Office (UPAO), Innovation Catalyst conducted consultations and interviews with the city officials, sari-sari store owners, and residents in San Juan.

Site visit to pilot stores

San Juan City was in charge of identifying sari-sari stores which were suitable for hosting the refilling dispensers in their communities. After the selection of 10 stores, Greenpeace Philippines and Innovation Catalyst, together with the city government staff, conducted site visits to assess the store locations, commercial space, and goods sold in the stores. Other factors such as foot traffic and the presence of similar stores nearby were also noted.

Pilot kick-off

Innovation Catalyst was able to come up with a refilling system design that could be easily adapted to the infrastructure of the stores that were chosen. Sari-sari store owners were briefed about the campaign mechanics and what being part of the pilot meant. The Innovation Catalyst team also used the opportunity to understand each of the sari-sari stores' peripherals that were part of their point of sale system and the other equipment or materials present in the stores, in order to identify commonalities among sari-sari stores around the city. This also allowed the pilot implementation team to get to know the sari-sari store owners.

Stakeholders' meeting

To enable sari-sari store owners to have a better understanding of the campaign, a stakeholders' meeting was conducted. The following were discussed during the meeting:

01 Solutions to the Plastic Crisis (Greenpeace Philippines);

02 The *Kuha sa Tingi* refilling stations campaign (Innovation Catalyst); and

03 An introduction to Chemlux Incorporated's profile, products, and services.

Present at the meeting were the organizers, Greenpeace Philippines, Impact Hub Manila, the Public Information Office of San Juan, the ten (10) store owners, and Chemlux, Inc..

Starter pack distribution

Before the launch, one (1) sari-sari store opted not to join the pilot mainly because the store owner was also distributing their own cleaning products. The pilot continued with nine (9) sari-sari stores and the San Juan City employee cooperative participated in order to replace the tenth store which had dropped out.

The distribution of the 10 starter packs was conducted on November 3, 2022 by the Innovation Catalyst Manila team and the Urban Poor Affairs Office of the City of San Juan. The Innovation Catalyst team, with the guidance of the UPAO, consulted with the store owners during the distribution to gather their insights. Each store received a similar starter pack, the only difference was that some received containers with a pump, while others received containers with faucets. This difference in set-up was dependent on the set-up of each sari-sari store.

Between November 4, 2022 and December 19, 2022, the project distributed the following:

01 Starter packs containing four (4) liters of four (4) products to the 10 stores, including:
   a. dishwashing liquid, laundry detergent, fabric conditioner, and shower gel
   b. materials for sales tracking

02 Four (4) liter refills of the four (4) products to the 10 stores

03 Additional four (4) liter refills of three (3) products to the 10 stores

(Note: The sale of the shower gel was suspended as the project team wanted to further study what drives consumers to buy this personal care product, as opposed to separate body wash and shampoo products.)

TOP:
San Juan City Mayor Francis Zamora (red shirt), joins the launch of the "Kuha sa Tingi" project in San Juan City.
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MIDDLE:
A resident watches as Celia Ponesto, a store owner, refills a container with fabric softener as part of the "Kuha sa Tingi" project in Barangay Maytunas in San Juan City.
© Basilio Sepe / Greenpeace

BOTTOM:
Store owner, Robylin Torrelino, demonstrates how to use a refilling dispenser in front of her small store as part of the "Kuha Sa Tingi" project in Barangay Salapan in San Juan City.
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Kuha sa Tingi campaign launch

Kuha sa Tingi was officially launched in San Juan City immediately after the distribution of the starter packs. Because San Juan City was the very first city in the Philippines to implement this type of initiative, San Juan City Mayor Francis Zamora, Vice Mayor Warren Villa, and other public officials attended the project launch. During the event, Mayor Francis Zamora spoke about his support for the project, while Greenpeace Philippines Country Director Lea Guerrero emphasized how *Kuha sa Tingi* is geared towards lessening plastic production and sachet use. RippleX founder Ces Rondario presented the Kuha sa Tingi model. Attendees included community stakeholders and the media.

Marketing through road shows and the San Juan City bazaar

To fully promote the new business model, Innovation Catalyst and Greenpeace Philippines, in close coordination with the Urban Poor Affairs Office, went to the seven (7) barangays where Kuha Sa Tingi refilling stations were present to promote the campaign to city residents on a more personal level. Kuha sa Tingi was also promoted at the San Juan City Bazaar, where the Innovation Catalyst team set up a booth during the opening day. The Innovation Catalyst team showcased Kuha sa Tingi starter pack samples and discussed the project with visitors.

Progress report on the 10 pilot stores

Over a year after Greenpeace Philippines provided refills, five (5) of the 10 establishments still continue the Kuha sa Tingi project through RIPPLEx, the commercialization of the ADS model by Innovation Catalyst. Two (2) stores had to pause refilling as the area was not the target market for this type of small volume refilling. Meanwhile, the remaining stores had to close in 2023, one (1) due to lack of overall store sales and two (2) for personal reasons. The five (5) stores were replaced by transferring the dispensers to another store. As of March 2024, RIPPLEx has reported a 100% refilling rate in San Juan City.

Residents, small shop owners, and members of environmental organizations pose for a group photo during the Kuha Sa Tingi (KST) roadshow in Brgy. West Crame, Quezon City, Philippines.
© Basilio Sepe / Greenpeace

(From left to right) Marian Ledesma, Plastic Waste Campaigner; Ces Rondario, Founder of RIPPLEx and Kuha sa Tingi Project; Lea Guerrero, Country Director, Greenpeace Philippines; Quezon City Mayor Joy Belmonte; and Andrea Villaroman, Head of the Quezon City Climate Change and Environmental Sustainability Department; at the Kuha sa Tingi Culmination at Quezon City Hall. Quezon City and Greenpeace Philippines join forces to tackle the urgent plastic pollution crisis and enhance existing city ordinances regulating single-use plastics.

Kuha sa Tingi in Quezon City

Quezon City partnership and rollout

In July 2023, the Local Government of Quezon City, led by of Mayor Joy Belmonte, signed a Memorandum of Agreement with Greenpeace Philippines, led by Country Director Lea Guerrero, and Innovation Catalyst, represented by its CEO and Founder, Ces Rondario, to rollout *Kuha sa Tingi* to 30 chosen stores across the six (6) districts of Quezon City.

Quezon City's aim to further promote less usage of plastics, specifically sachets or tingi-packed products, led them to partner with Greenpeace to launch the *Kuha sa Tingi* project. By introducing refilling stations in sari-sari stores and other community establishments, the campaign provided solutions at the grassroots level since these stores are easily accessible to the target audience. The project complements Quezon City's existing efforts to address plastic pollution and the city ordinances regulating the use of single-use plastic items such as plastic bags and cutlery.

Through the city's Climate Change and Environmental Sustainability Department (CCESD), Innovation Catalyst conducted community profiling of the on-the-ground stakeholders. The pilot rollout community in Quezon City are the "Tindahan ni Joy"[41] program beneficiaries, spread throughout 142 barangays and the Quezon City Public Markets.

To further support the advocacy of less plastic usage, the refilling stations in the sari-sari stores and community establishments will promote the usage of reusable plastic containers, all while generating a new income stream for the store owners.

[41] The Tindahan ni Joy program provides livelihood aid to solo parents in Quezon City.

Site visits and orientation

The implementation process in Quezon City was relatively similar to that of the first pilot site. The Climate Change and Environmental Sustainability Department and Tindahan ni Joy Team joined Innovation Catalyst in conducting community site visits. The group met with the chosen participants to invite them to be part of the *Kuha sa Tingi* campaign.

An orientation was held for store owners at Quezon City Hall. The participating sari-sari stores were briefed regarding Greenpeace's Plastic-Free Future campaign, which aims to reduce plastic production, phase out single-use plastics, and advance reuse and refill systems. They were also familiarized with what being part of the pilot 30 stores in Quezon City entailed. Greenpeace also provided an overview of the plastic pollution crisis and reuse and refill systems, with an emphasis of the latter's importance in addressing environmental issues.

During the orientation, Innovation Catalyst gave a walkthrough of the business model and safe product handling practices. The team used the activity to engage store owners in order to further understand the stores and their respective communities, including the commonalities and differences of the various communities. This enabled Innovation Catalyst to get a better forecast of the possible outcomes.

Daisy Borja, a teacher at a daycare center in Quezon City sells refillable household cleaning items via the Kuha sa Tingi program, in an effort against plastic pollution as the city goes through a circular economy
© Jilson Tiu / Greenpeace

Starter pack distribution and pilot progress

The distribution of starter packs occurred in July 2023 at the city hall. Sixteen (16) of the 30 participating stores were able to attend the distribution event, while the remaining 14 who could not attend in person had their starter packs delivered to their community. The store owners were reminded of the overall goal of the campaign, proper handling of the starter packs, and sales recording for project evaluation. Mayor Belmonte participated in the distribution at the city hall, where she shared that *Kuha sa Tingi* is a collaborative campaign with Greenpeace Philippines and Innovation Catalyst in order to provide more livelihood opportunities without having to sacrifice the environment in Quezon City.

Between July 2023 and September 2023, the following were implemented under the project:

01 Distribution of starter packs containing four (4) liters of the four (4) products to the 30 stores, which included:
- **a.** dishwashing liquid, laundry detergent, fabric conditioner, and multipurpose cleaner;
- **b.** materials for sales tracking

02 Four (4)-liter refills of the four (4) products to 28 stores (two [2] stores were unable to refill due to challenges in selling the products and needing more preparation to do retail using the model.)

In the course of the eight-week pilot period, Innovation Catalyst, with the support of the Quezon City Climate Change Department, monitored and tracked the sales of the participating stores.

Progress report on the initial 30 stores

After six months, 24 of the 10 establishments have continued refilling under the *Kuha sa Tingi* project through RIPPLEx. Six (6) stores stopped due to store closures, being unprepared to do retail via refilling, and the relocation of store owners to other areas. These stores were replaced after 30 to 45 days of no orders. The RIPPLEx team transferred the dispensers and measuring cups to other stores within Quezon City. As of March 2024, RIPPLEx has reported a 100% refilling rate in the city.

TOP:
Joy Jabaga, a sari-sari store owner from Payatas, sells refillable household cleaning items via the Kuha sa Tingi program, which is supported by the local government in Quezon city in an effort to fight the plastic pollution as the city supports a zero waste circular economy.


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OVERALL PROJECT RESULTS

Pilot findings

The pilot proved that the *Kuha sa Tingi* business model is viable and achieves the output desired by the project. After the successful pilots in San Juan City and Quezon City, the project partners noted the following:

1. Using the suggested retail prices (SRP), a sari-sari store that buys a starter pack at PHP 4,950.00 can break even after selling the third refill of the products and already earn a profit of PHP 1,616.00
2. Based on the actual results of the pilot, stores had an average net profit of PHP 2,899.00 per month and could break even by the third month
3. For the model to be financially profitable for a supplier business (selling products to sari-sari stores), it needs to service at least 50 stores per service area with a refilling frequency of at least twice a month for three (3) months
4. The pilots were able to successfully contribute to avoiding the use of single-use plastics, particularly sachets; and
5. The model can be successfully scaled out to other cities

After the culmination of the pilots, Innovation Catalyst conducted feedback interviews with the pilot stores to assess the rollout and gain insights on how to improve succeeding *Kuha sa Tingi* implementations. The following table is a summary of various findings from different perspectives (i.e. store owners, consumers, Innovation Catalyst Team, etc.)

LEFT:
Marian Ledesma of Greenpeace Philippines speaks during the Kuha Sa Tingi (KST) roadshow in Brgy. West Crame, Quezon City, Philippines.

Pilot findings

Pilot detail	Description	Observation	Mitigation (if any)
Product pricing	Starter pack priced at PHP 4,950.00	Stores are willing to buy the starter pack at a two-time payout scheme.	
	Product refill	Price is competitive with a ~200% margin for store owners' profit and ~150-200% for consumer savings	
Product sales and tracking	Suggested retail prices (SRP) for KST products	Price is competitive especially compared to branded counterparts.	
	Sales monitoring sheets	Store owners were able to submit their records; however, there may be variations to the total sales reported due to various reasons (ie. SRP, suggested retail price, missing tally, etc.)	The project needs to be firmir in relaying expectations from the participating stores. Strategies can include: more frequent store visits and a more streamlined reporting tracker. In the long run, digital dispensers can address this challenge.
Product quality	Four (4) SKUs (stock keeping units): dishwashing liquid, laundry detergent, fabric conditioner, shower gel	Products were fast moving, especially the liquid detergent and fabric softener. General feedback were: • Consumers want to have a longer-lasting scent for the fabric conditioner and liquid detergent • Demand for more SKUs like alcohol and shampoo	Constant feedback to manufacturers on Innovation Catalyst's end based on the experiences of the consumers and store owners.

Pilot detail	Description	Observation	Mitigation (if any)
Starter pack materials	Provided materials: measuring cups, tarps, brochures, etc.	The intention of using these materials strengthen the reasoning behind *Kuha sa Tingi*	
	Bring Your Own Bottle (BYOB) system for consumers	Sari-sari stores were able to communicate this clearly and this practice was received well by the consumers	
Logistics	Free delivery for every refill	Store owners appreciated this since it became easier for them to get the products without having to leave the store. Model must improve on getting deliveries at a shorter time frame, but does not incapacitate the stores since all they need is the confirmed delivery date.	The digitalization or automation of certain processes are recommended when scaling the model. Reverse logistics should be automated to help determine if a store needs another delivery within a certain period of time, allowing for a more efficient delivery schedule that will use less resources and take less time.
Monitoring and administration	Monitoring and feedback loops were included throughout the duration of the program.	Although there were weekly check-ins and bi-monthly store visits, there still needs to be more improvement in terms of reporting from the stores for data collection.	Digitizing the containers will allow for real-time data tracking of the movement of the products. Digitalization also allows the businesses to get data on purchase patterns, among others.
Environmental awareness	Provided free training for community awareness during the orientation seminar.	Store owners agreed that sachets have a negative impact on their community.	

Project highlights

Overall, four (4) project outcomes were highlighted at the end of the *Kuha sa Tingi* pilots.

Sachets diverted

Assuming all products could have been sold in 30ml sachets instead of in refill format, the figure for diverted sachets is derived from how many 30ml sachets would have been purchased based on the volume of products refilled.

In the course of the six-week pilot period in San Juan, Innovation Catalyst and the City of San Juan monitored and tracked the sales of the participating stores. The refilling stations of 10 stores were able to divert an estimated 8,453 sachets in just six weeks, based on the sale of 253,599ml of the four (4) products via refill.

In an eight-week pilot run, the Quezon City stores located in all six (6) districts of the city were set up as refill hubs for basic household items. During the said period, a total of 47,601 sachets were avoided, equivalent to about 1,428,030ml of products sold.

Consumer savings

Consumers reported savings when purchasing packaging-free products via refilling. Comparing the costs of sachet-packaged goods and the SRP of products offered via *Kuha sa Tingi*, it was determined that consumers would save money. The average consumer savings for all four products is estimated to be at 201%.

Increased store income

By providing lower cost products of the same quality as multinational FMCGs, the project had a positive economic impact on community stores hosting the dispensers—the micro businesses' profits increased. Based on reports from stores, Innovation Catalyst estimates that stores in both cities had a 15% increase in profit.

Plastic avoidance practices

In some sites, the adoption of practices that avoid single-use plastic was observed.

- Some store owners have decided to stop selling dishwashing liquid in sachets. This was due to customers no longer buying sachets for that product and/or better profits for the stores.
- Regular customers of the stores have picked up the habit of bringing their own reusable containers to be refilled.
- Some stores and customers are requesting another option: the same products in reusable packaging that the businesses can refill and consumers can return after use. This reuse system is currently being assessed to see how it could work.

Testimonials

Our partnership with Greenpeace and Innovation Catalyst only proves that shifting to Zero Waste and limiting our plastic generation is inclusive, affordable, and accessible to all—including those from all socio-economic sectors and urban areas."

Mayor Joy Belmonte,
Quezon City

We believe that communities can lead the way to show that we can reduce, if not totally eliminate, single-use plastics. *Kuha Sa Tingi* does just that by doing away with the sachets and other single use plastics and promoting reuse and refill systems. Not only does this project protect the environment and reduce plastic waste, it also creates livelihood and supports a zero waste circular economy."

Mayor Francis Zamora,
San Juan City

Kuha sa Tingi helped me a lot because it increased my store's income, which has also helped cover our daily expenses at home. Whenever I would open my store before, I would see plastic waste everywhere, but ever since *Kuha sa Tingi* started, I noticed that the surroundings are cleaner."

Menchie Paule,
***Kuha sa Tingi* store partner**
in Quezon City

Aside from selling products as refills, through this project, I learned that plastic waste has become a large problem in society. Every time we buy sachets, we merely throw them anywhere. If we purchase refills, we will be able to avoid plastic waste altogether."

Narciso Marcelo,
***Kuha sa Tingi* store partner**
in West Crame, San Juan

I like [the reuse and refill system] more because I can buy in small quantities at affordable prices. Aside from the fact that it is cheaper, you get more of the product with less packaging and less plastic. We should all have our own containers because it lessens both expenses and pollution."

Marilyn, Resident
of West Crame, San Juan

CITY-LED SCALING AND REPLICATION OF KUHA SA TINGI

After successful pilot runs in the cities of San Juan and Quezon City, *Kuha sa Tingi* has since aimed to expand further.

Quezon City 1000-store rollout

With the successful pilot, the Quezon City Government increased the number of sari-sari stores that will serve as refill stations for communities. From five (5) stores per district, the project reached 1,000 more stores. The rollout to all six (6) districts of Quezon City was conducted from December 18, 2023 until January 5, 2024.

Based on projections, the roll out of *Kuha sa TIngi* to 1,000 sari-sari stores will help avoid the disposal of 533,333 sachets just from the initial round of 16 liters worth of products in refill format upon the initial activation of the stores. Should each store refill once a month, the Quezon City stores would collectively avoid 1,066,666 pieces of sachet waste per month, or 12,799,992 pieces of sachets annually for all 1,000 stores. As for the benefit of the store owners, each beneficiary will profit at least PHP 1,800.00 per month or PHP 21,600.00 annually given the lower cost of selling these items in refillable containers compared to their counterpart in sachets. Consumers of the said products will also save an estimated amount of PHP 400.00 per month should they buy from these refill hubs.

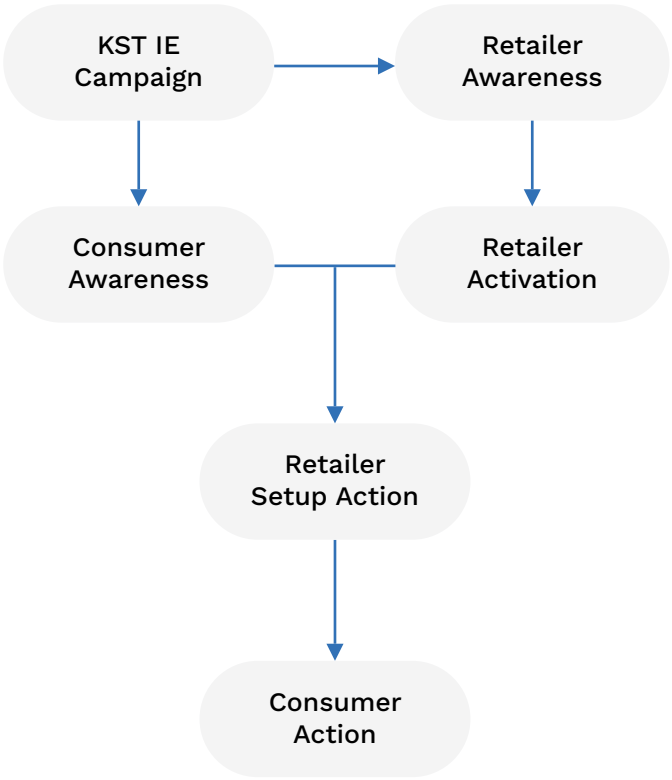
Pasig City 20-store pilot rollout

RIPPLEx and Greenpeace Philippines engaged the Office of Congressman Roman Romulo, the Local Economic Development and Investment Office, and the Department of Trade and Industry (DTI) - NCR. Innovation Catalyst through RIPPLEx was able to reach the twenty (20) chosen stores to try the model. The stores were selected by DTI-NCR and then checked by RIPPLEx for suitability before onboarding. The participating stores were able to join the orientation seminars with RIPPLEx to be briefed about the entire program, a deeper discussion of what was introduced to them during the site visit. The Pasig City pilot began in late December 2023.

Model replication

The effective processes that proved to have worked during the pilots were mapped (see the model replication framework and social business canvas on page 32). A key factor that was critical to project success was the cost benefit to both the stores and their consumers. Access to quality products at an affordable rate was highlighted by the stakeholders engaged by the project. Apart from the economic value benefits, it is vital that proper knowledge sharing and transfer is given to all stakeholders to ensure successful implementation.

In planning for scale, it is important to frontload support to the stakeholders in exploring the decision to adopt the refilling model. They need to have a very clear understanding of the commitment that will be required during each stage of implementation, including resources, support, and capacities. The support and information provided up front will help them decide whether they have the capacity to go forward and create conditions for successful model replication.



Detail	Description	Action item
KST Education and Information Campaign	Online and offline communications campaign	
Retailer Awareness	Retailer Inquiry	Signs up and attends information
Retailer Activation	Retailer Due Diligence	Retailer submits requirements: 1. Completed Partnership Form 2. Photocopy of Business or Barangay Permit 3. Photocopy of (1) valid ID
	Retailer Confirmation	Payment is made
	Retailer Onboarding	Starter Kit is set up
Retailer Amplification		Sales and Marketing

Social Busines Model Canvas

1. Problem

1. The Philippines consumes 164 million sachets are consumed daily.

2. The average Filipino laborer earns $10 a day which only allows them to buy necessities in sachets from sari-sari stores and results in them paying 50% more.

3. Sari sari stores have no flexibility in their margins

2. Solution
Outline a possible solution for each problem.

We're minimizing single-use plastic in sachets to reduce its significant contribution to plastic pollution. Refill models cut costs for waste prevention and management in cities, and help prevent impacts of the plastic lifecycle.

Refill systems can be a solution to the cycle of poverty that afflicts millions of Filipinos earning that daily wage, allowing them to pay less for necessities as well as giving the sari-sari store owners the capacity to earn more.

3. Unique Value Proposition
Single, clear, compelling message that turns an unaware visitor into an interested prospect.

Kuha sa Tingi is an alternative distribution system done in partnership with community stores. We work with sari-sari stores to provide them with refilling containers allowing them to dispense essential detergents and soaps to the neighboring community, by encouraging them to purchase with reusable containers.

It reduces the use of single-use plastic sachets. It is cheaper and just as convenient for the user, and gives a bigger profit margin to the sari-sari store owner.

4. Unfair Advantage
Something that can't be easily copied or both

1. Very competitive pricing of products
2. LGU partnership
3. Ease of logistics

5. Macro Economic Environment
What are the economic, social, and technological changes taking place that affect your market now and in the future?

More and more people are becoming aware of emerging models to save not just money but the planet.
We believe this will only increase through time.

6. Stakeholders
Who helps you to deliver your activities

1. Greenpeace Philippines to orient stakeholders and communities on the plastic crisis
2. Manufacturing partners
   a. Product provider
   b. Dispenser provide
3. LGUs for community engagement
4. Logistics operators
5. Community associations

7. Key Metrics
List the key numbers that tell you how your project / enterprise is doing

1. Sachets diverted from landfills and Ocean
2. Profit increase by sari-sari stores
3. Increase in consumer savings
4. Number of partner stores or distributors
5. Number of liters refilled
6. Number of starter packs sold

8. Channels
List your path to customers

- LGU partnership
- Social media
- Media engagement
- Community engagement
- Word of mouth

9. Customer Segments
List your target customers and users

First phase is a B2C retail model:
1. Sari-Sari Stores
2. Laundry Shops
3. Convenience stores

Early Adopters
1. LGU partners
2. Sari-sari store owners
3. Consumers in areas hosting the model

10. Cost Structure
List your fixed and variable costs

Fixed:
- Staff cost

Variable:
- Product purchase (depends on volume)
- Container cost (depends on volume)
- Logistical / Delivery cost (depends on volume and locations)
- Marketing cost

11. Revenue Streams
List your sources of revenue

- Starter Packs
- Refilling
- Adopt-a-store financing models

ESTABLISHING A REUSE AND REFILL ECONOMY

Producer responsibility

Producers play a primary role in establishing a reuse and refill economy and phasing out single-use plastics, particularly sachets. Producers need to understand that the sachet and disposable economy that they've introduced is the key driver of the plastic pollution crisis, and that shifting away from single-use products and product packaging is the primary solution. Governments need to mandate producers to transform their business practices.

Obligated enterprises

Large-scale enterprises and medium-scale enterprises[42] which manufacture goods packaged single-use plastics identified in the previous section should be required to transition to refilling as a product delivery system. Distributors involved in packaging or repackaging the identified manufactured goods in single-use plastic for final sale to consumers are recognized in the scope of producers. While not required, micro- and small- enterprises are encouraged to invest in reuse models.

Establishing reuse and refill

In order to make a significant reduction in impacts created by production and disposal of plastic, these enterprises must reach required reuse and refill targets. A certain percentage of the total sales units of products packaged in single-use plastic must transition to reuse and refill models in delivering goods to end consumers by 2030. As mentioned above, if 40-70% of all packaging is reusable, it could potentially eliminate all ocean plastic waste leakage and reduce landfill plastic waste by 50-85%.[43]

Greenpeace recommends that, as a start, companies should be mandated to have 50% of the total units of products previously packaged in plastic be delivered to consumers through reuse and refill models. Ideally, reuse and refill targets are separated. For reuse, the percentage is based on the annual volume of sales units of products, considering the rapid increase in production and consumption.

A refill target could be in the form of a percentage of space at retailers dedicated for refill. Another option is mandating refilling systems as one mode of product distribution for specific fast-moving consumer goods for manufacturers and retailers. Obligated enterprises must be required to design and invest in the establishment of refilling systems to deliver the refillable goods they will produce. They may directly manage the refilling systems through manufacturer-operated refilling stations or may provide retailers with the products and necessary equipment for dispensing and storing products. It is recommended that systems be harmonized and implementation be done in coordination with retailers and other manufacturers to reduce the needed investment of each entity.

[42] The Magna Carta for Micro, Small and Medium Enterprises (MSMEs) defines medium-scale or sized enterprises as businesses with total assets ranging from Php 15,000,001 to 100,000,000. Large-scale enterprises are those with total assets Php 100,000,001 and above.
[43] World Economic Forum (2021). The Future of Reusable Consumption Models. https://www3.weforum.org/docs/WEF_IR_Future_of_Reusable_Consumption_2021.pdf

Ensuring competitiveness

Reuse and refill systems must be competitive in comparison to their single-use counterparts for them to be adopted, scaled, or replicated by producers, and for these ADS models to gain widespread acceptance among consumers. To make refilling stations more cost-competitive, it is recommended to incorporate a provision similar to Germany's packaging law which states the final distributors may not offer the sales unit consisting of goods delivered to the end consumer through reusable packaging at a higher cost or less favorable terms than the sales unit of the same goods in disposable packaging.[44] This measure can be applied to both producers and retailers.

Retailer responsibility

Retailers selling the identified products in plastic packaging have an important role in that they manage the day-to-day operations of refilling systems and ensure compliance with relevant regulations after receiving refillable goods from manufacturers or producers.

Establishment of refill systems

For the initial introduction of refill systems, retailers classified as large-scale enterprises need to be required to establish refilling stations in their establishments. Meanwhile micro-, small- and medium- enterprises (MSMEs) have the option to adopt the same models. In addition to allocating a space in their retail establishments for refilling stations, they need to provide the necessary equipment to implement refilling activities in their establishment and train the necessary number of staff to operate refilling stations according to proper guidelines.

Provision and use of refillable containers

Reusable containers brought by end consumers for refilling must be prioritized, although retailers may offer reusable containers for sale or with a deposit if consumers do not have their own. Consumers' own reusable packaging will be used as a default, provided that the container meets standards for sanitary refilling. A discount is recommended for consumers using their own containers to minimize repeated consumption of reusables (see incentives section).

Informing consumers

It is recommended that retailers be required to inform end consumers of the available refilling systems in-store and their associated incentives (e.g. discounts, promos). The retailer must display clearly visible and legible signs reflecting this information in the appropriate product sections of the establishment and at the point of sale. For delivered goods, this notice must be given in the respective platform, digital or otherwise, where purchases are made.

[44] Verpackungsgesetz (Verpackungsgesetz 3, VerpackG3, VerpackG 3) - Section 7 - Reduction in the consumption of certain disposable packaging, Packaging Law Issued 5 July 2017, Amended Version from 16 May 2023 (translated in March 2024). https://www.verpackungsgesetz.com/gesetzestexte/verpackg/#verpackg_abs06

RECOMMENDATIONS

Address policy gaps in the Philippines

The plastic crisis is an emergency that requires urgent action, especially since developing countries like the Philippines bear the brunt of its impacts. Greenpeace believes that the only way to take on the problem is to address it at root. Although strong legislation like the Ecological Solid Waste Management Act (Republic Act 9003 or the "Solid Waste Management Act")[45] has been around for more than two decades, its implementation has not been strictly enforced.

Further, the current Extended Producer Responsibility Act (Republic Act 11898 or the "EPR Act")[46] which took effect in 2022 is inherently flawed. While the EPR Act is supposed to complement the Solid Waste Management Act and hold obliged enterprises accountable for the waste that they produce, it falls short of this objective as it only mandates collection of plastic waste, and not reduction. In this regard, the law fails to strengthen upstream interventions necessary to mitigate plastic pollution in the country.

The reality is that even with a solid waste management framework and the mobilization of both public and private entities to address the plastic crisis in the country, the Philippines is still unable to cope with the deluge of disposable plastic. With unregulated mass production of disposable plastics, the systematic dismantling of existing reuse models, and the glaring lack of new reuse and refill systems, the current status quo perpetrated by plastic producers has led to adverse impacts on ecosystems and health.

The government needs to look at the plastic crisis as more than just a waste issue. Current mainstream approaches to plastic pollution—focused on downstream interventions, i.e. management of waste that has already been produced—are inadequate.[47] The plastic crisis cannot be resolved without a reduction in plastic production, regardless of the quantity, scope, and effectiveness of waste management strategies at both local and national levels.

Greenpeace together with the #breakfreefromplastic coalition conduct a beach cleanup activity and brand audit on Freedom Island, Parañaque City, Metro Manila, Philippines.
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[45] Republic of the Philippines. Republic Act No. 9003. Ecological Solid Waste Management Act of 2000. 26 Jan 2001. https://www.officialgazette.gov.ph/2001/01/26/republic-act-no-9003-s-2001/
[46] Republic of the Philippines. RA 11898 – Extended Producer Responsibility on Plastic Packaging Waste. 23 July 2022. https://emb.gov.ph/ra-11898-extended-producer-responsibility-on-plastic-packaging-waste/
[47] Rethink Plastic, Prevention and reuse – the only solution to record levels of packaging waste, 2023. https://rethinkplasticalliance.eu/news/prevention-and-reuse-the-only-solution-to-record-levels-of-packaging-waste/

Legislation on upstream solutions is imperative: Ban single-use plastic products and implement a phased reduction in production

There is a need to legislate and enforce upstream interventions such as bans on single-use plastic products, a phasedown in production, redesigned distribution systems, and waste-free reuse models in order to effectively address the plastic crisis.

To leave production unregulated without mandated reductions or prohibitions on certain types of disposable plastics will only worsen the massive, decades-long burden suffered by vulnerable populations such as fisherfolk, marginalized groups, and low-income communities living near production and petrochemical facilities, incinerators, and waste sites.[48]

Enacting a law to regulate and ban single-use plastics will ensure benefits for public health, the environment, and the economy. The economy, in particular, will benefit from the creation of a new reuse economy built on reuse and refill models and reusable alternatives made of sustainable native materials. Resources spent on addressing health conditions arising from plastic pollution, preventing further health risks, and managing plastic waste can be avoided if cities prioritize investment in healthier, safer, environmentally friendly solutions instead.

Strong policies that regulate plastic production play a very critical role in stopping plastic pollution. This is why legislation to ban single-use plastic products and packaging is crucial, not just for Filipinos whose health and livelihoods are affected by the pollution,[49] but also for the national government, government agencies, and local governments that shoulder the costs of plastic pollution.

Manufacturers have long been getting a free ride on taxpayer money that could have funded other government programs. Mandating regulations and bans on single-use plastics will force manufacturers to take accountability for the impacts of their products, pushing them to innovate and change their polluting business practices to better and more sustainable models that do not sacrifice people's health or the environment.

An effective law should:

1. reduce plastic production and regulate material composition;
2. ensure unrecyclable plastic is limited or banned and removed from municipal waste streams; and
3. create a national framework that supports the existing 500+ local ordinances and government agency policies on single-use plastics, such as bans and plastic use regulations.[50]

[48] UN Environment Programme. NEGLECTED: Environmental Justice Impacts of Marine Litter and Plastic Pollution. https://wedocs.unep.org/bitstream/handle/20.500.11822/35417/EJIPP.pdf
[49] World Resources Institute and UN Environment Programme. TACKLING PLASTIC POLLUTION: Legislative Guide for the Regulation of Single-Use Plastic Products, 2020. https://wedocs.unep.org/bitstream/handle/20.500.11822/34570/PlastPoll.pdf.pdf?
[50] Senate Economic Planning Office, Unpacking Policy Options to Reduce Single-Use Plastics in the Philippines, 2023. https://legacy.senate.gov.ph/publications/SEPO/SEPO%20Policy%20Brief_Single%20Use%20Plastics_Final.pdf

Enabling reuse and refill systems with policies, incentives, and shared infrastructure

Combined with strong policies, upstream solutions—such as reuse and refill, which reduce the need forplastic production—are significantly more effective in addressing the plastic crisis compared to downstream waste management.

Reuse and refill systems curb the volume of single-use plastics in circulation and eliminate the risks of harmful impacts in both upstream and downstream stages of plastic's life. They address plastic pollution at its source before the plastic product creates environmental, social, and health problems. Reuse and refill systems have the potential to drastically reduce impacts and even eliminate plastic waste in ecosystems. However, widespread adoption of reuse models will require strong, fair, and environmentally sound policy frameworks. Existing policies such as Germany's packaging law is an example of this kind of policy. Another example is the provisional agreement reached by the European Parliament and the European Council in March 2024, which includes time bound reuse targets for beverages and takeaway packaging, and incentives for water served in reusable and refillable formats.[51]

Standards, regulatory mechanisms, and guidelines for refill and reuse

National legislation, regulatory mechanisms, and policy frameworks are necessary to enable a transition to reuse and refill systems, as well as to accelerate the scaling of existing models. Standards and guidelines set by laws and regulatory bodies such as the Food and Drug Administration (FDA) will allow for the development of resource-efficient, environmentally safe alternative distribution systems in the fast-moving consumer goods industry and other sectors that currently utilize single-use plastics. These standards would drive more systemic approaches and strategic implementation within an industry, as opposed to isolated projects or proprietary programs.

The development of the Global Plastics Treaty presents a massive opportunity to establish standards and regulations that will accelerate the development and transition to reuse and refill systems. Provisions on reuse and circularity can establish a global framework that harmonizes different approaches as well as targets across different sectors. This would fast-track adoption and create support for research and development around these models. It must be noted, however, that these policies must leave room for innovation and consideration of traditional practices, indigenous knowledge, cultural norms, local contexts, and logistical needs arising from geographic challenges. A Philippine law and a national framework for reuse and refill systems with targets must be crafted independently of the treaty to reflect the country's goals of transitioning to a slow circular economy.

Incentivizing businesses

As *Kuha sa Tingi* has shown, reuse models must be competitive for them to become mainstream. Incentives and government support mechanisms for these systems and for reusable items are crucial. These allow producers and retailers to overcome challenges, such as capital investment for refilling stations. Notably, in the current EPR Act, 52 obliged enterprises—large enterprises with total assets worth more than PHP 100 million—are entitled to financial and non-financial incentives as refilling systems, product redesign for reusability, and the adoption of reusables are among the accepted strategies for the reduction of single-use plastic packaging.

A reuse economy depends on redistributing value across local, national, or global systems or value chains, and that redistribution can be done through government subsidies and tax incentives, which can be provided during the transition phase. The creation and design of enabling infrastructure and systems for reuse and refill models can also be done through regulation, such as mandating shared infrastructure and standardized packaging for interoperability of assets across different business-owned systems. The government can also work together with the private sector to maximize existing public infrastructure and waste management systems (including informal sectors) to enable or support reuse and refill systems.

[51] European Parliament, Deal on new rules for more sustainable packaging in the EU, 4 March 2024. https://www.europarl.europa.eu/news/en/press-room/20240301IPR18595/deal-on-new-rules-for-more-sustainable-packaging-in-the- eu
[52] Philippine Extended Producer Responsibility Act of 2022. https://legacy.senate.gov.ph/republic_acts/ra%2011898.pdf

Consumer incentives

Discounted rates will encourage consumers to embrace reuse and refill systems. Utilizing a scheme similar to Taiwan's discount policy for reusable cups,[53] we recommend that retailers offer discounts to end consumers who bring their own reusable or refillable containers. This not only motivates consumers to continue this new purchasing behavior, but also offsets any investment in reusable containers for refilling. This can be through a discount at the final point of sale.

Similar to discounted rates, a reward or points system will also drive consumers to support reuse and refill systems. One method of incentivization would be to give consumers points for transactions at refilling stations. The credits or points can be provided per overall transaction or per product purchased, depending on the incentivization scheme the manufacturers or retailers created. Ideally, this scheme can be streamlined into one platform or system for all obliged enterprises, or on several platforms catering to multiple enterprises, to give consumers a variety of rewards to choose from. Examples are in-store credits and discounts provided by retailers as part of their loyalty program, and mobile applications which allow consumers to earn and redeem points by purchasing through refill and reuse systems. Greenpeace recommends that the redemption points should: (1) be widely available (e.g. redeemable in many branches for retail, various collection points across metropolitan areas); (2) located in areas easily accessible to public transport to cater to a wide group of consumers; and (3) help sustain the refilling system by prioritizing credits and points for future refills. Other rewards should ideally be plastic-free or Zero Waste versions of products or non-tangibles (e.g. experiences, subscriptions).

A member of Innovation Catalyst talks as residents and small shop owners participate in the "Kuha Sa Tingi" or KST roadshow in Barangay Maytunas in San Juan City, Metro Manila
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[53] Taipei Times, Expanded discount policy on reusable cups to start, 2022. https://www.taipeitimes.com/News/taiwan/archives/2022/06/30/2003780858

CONCLUSION

A dual approach of establishing reuse and refill systems and enacting strong Zero Waste policies that focus on upstream solutions is necessary to effectively address the scale and gravity of the plastic pollution crisis. The major players that can make this happen are the corporations responsible for producing plastic waste such as sachets, and the government.

Corporations must change the way they do business and enact widespread systemic changes on what materials they rely on, as well as on their product delivery systems. To begin with, they need to start phasing out sachet packaging, and then drastically reduce and eventually eliminate the production of disposable plastic packaging and products.

The Philippine government must ensure a strong regulatory framework that addresses plastic pollution at root by looking at the complete lifecycle of plastics, instead of just focusing on waste management. Alongside existing measures such as the local government ordinances, and the Ecological Solid Waste Management Act, the government should mandate, and provide strong support for, reuse and refill systems. The EPR Act should also be revised and strengthened to change its focus from plastic waste recovery and disposal to the reduction of plastic production in order to make it an effective law.

Reuse and refill contribute to outcomes such as reducing plastic production, material resource usage, and greenhouse gas emissions. In doing so, they subsequently decrease the harms felt by affected communities throughout the lifecycle of plastic. As *Kuha sa Tingi* demonstrates, reuse and refill systems are not just an essential part of the solution to plastic pollution—they are also viable business models that benefit retailers and consumers, aside from producers. With political will, as seen in Quezon City and San Juan City, these models can be effectively replicated and scaled up and provide benefits to the local government unit by reducing sachet pollution and the costs associated with it. Alongside supporting this model, cities and municipalities can call for accountability from multinational FMCG manufacturers that produce most of the country's sachet pollution but do not pay for the environmental and social costs.

Accelerating the transition to reuse and refill systems, as well as reducing and eventually eliminating the production of single-use disposable plastic products and packaging will secure environmental justice, contribute to better health outcomes, advance climate action, and protect the well-being of every FIlipino.

"Our partnership with Greenpeace and Innovation Catalyst only proves that shifting to Zero Waste and limiting our plastic generation is inclusive, affordable, and accessible to all—including those from all socio-economic sectors and urban areas."
– ***Mayor Joy Belmonte, Quezon City***

"We believe that communities can lead the way to show that we can reduce, if not totally eliminate, single-use plastics. Kuha Sa Tingi does just that by doing away with the sachets and other single use plastics and promoting reuse and refill systems. Not only does this project protect the environment and reduce plastic waste, it also creates livelihood and supports a zero waste circular economy."
– ***Mayor Francis Zamora, San Juan City***

Pioneered by Greenpeace Philippines and Innovation Catalyst, *Kuha sa Tingi* is a project that demonstrates proof-of-concept that reuse and refill systems are not just effective solutions to the plastic crisis, but are also sound business models that benefit suppliers, retailers, consumers, and local government units—while helping protect the environment and communities.

Reuse and refill systems, alongside strong policies to regulate the production of single use plastics such as sachets, are necessary to effectively address the scale and gravity of the plastic pollution. Reuse and refill solutions reduce plastic production, material resource usage, and greenhouse gas emissions. In doing so, they subsequently decrease the harms felt by affected communities throughout the lifecycle of plastic.

As the project *Kuha sa Tingi* demonstrates, reuse and refill systems are not just an essential part of the solution to plastic pollution—they are also viable business models that benefit retailers and consumers, aside from producers. With political will, as seen in Quezon City and San Juan City, these models can be effectively replicated and scaled up and provide benefits to the local government unit by reducing sachet pollution and its attendant costs. Alongside supporting this model, cities and municipalities can call for accountability from multinational fast moving consumer goods manufacturers that produce most of the country's sachet pollution but do not pay for the environmental and social costs.

Accelerating the transition to reuse and refill systems, as well as reducing and eventually eliminating the production of single-use disposable plastic products and packaging will secure environmental justice, contribute to better health outcomes, advance climate action, and protect the well-being of every FIlipino.

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