

## CIRCULAR ECONOMY BUSINESS CASE STUDIES IN SOUTHEAST ASIA

## #GENERASIPILAHPLASTIK



## Unilever

- Indonesia
- Fast-moving consumer goods
- [www.unilever.co.id](http://www.unilever.co.id)
- Analysis period: 2019-2023

## Beyond Disposables – Towards Circular Plastic Packaging

## Business Spotlight

Unilever Indonesia, a leading fast-moving consumer goods (FMCG) company, has been piloting circular solutions in plastic packaging since 2019. Unilever incorporates 100% recycled plastics into the packaging of some of its products, such as the bottles for Bango soy sauce and Love & Beauty Planet. Unilever's efforts have improved material circularity and efficiency and reduced the use of virgin plastics. The company's initiatives to reduce plastic waste and achieve significant sustainability milestones have produced visible positive impacts on Unilever's business as sales, profits, and market positioning have all improved. In 2017 Unilever committed to reduce using new plastic by 50% worldwide, including an absolute reduction of virgin plastic use by 100,000 metric tonnes, and use of 25% recycled plastics in all packaging by 2025, thus reinforcing the company's commitment to sustainability.

## Keywords

Circularity, Packaging, Multilayered packaging, Fast-Moving Consumer Goods

## Innovation

Manufacturing, End-of-life management, Resource circularity, Resource efficiency



## Context and baseline

Unilever's circularity initiatives address the pressing issue of plastic waste, particularly single use packaging, a significant environmental problem with profound implications on the marine environment and wildlife. In 2023, Unilever collected and processed 56,159 metric tonnes of plastic packaging waste in Indonesia. The initiative in Indonesia is driven by the Unilever global strategic framework, The Unilever Compass<sup>1</sup>, which guides sustainability and circular economy initiatives worldwide.

Unilever collaborates with Google through the technology company's Business Profile, enabling environmentally conscious consumers to locate waste banks via Google Search and Google Maps. Unilever also partnered with the Fraunhofer Institute in Germany and PT Trias Sentosa in Indonesia, piloting and further developing the CreaSolv® process which holds promise to recycle multilayered plastic waste back into packaging materials. Unilever's circular solutions include using 100% recycled materials to package its branded products Rinso, Bango and Love & Beauty Planet. Total plastic packaging waste collection and processing volume amounted to 56,159 metric tonnes in 2023, through waste bank networks in 50 cities for production of refuse-derived fuel (RDF) technology.<sup>2</sup> The company target is to support the collection of 74,000 tons of plastic waste in 2024.<sup>3</sup>

## Innovation

Unilever is committed to addressing the global issue of plastic waste, particularly single-use plastic packaging used across Unilever's diverse range of consumer products. The company has set ambitious targets to reduce waste generation, including single-use plastics in packaging and food waste from factories and operations. Unilever's approach to reduce plastic waste includes innovative packaging designs using recyclable, biodegradable or reusable materials, involving communities in plastic waste collection through Waste Banks, and converting plastic waste into RDF. By 2030, Unilever aims to achieve full circularity for plastic packaging with plans to ensure that all plastic packaging is recyclable, reusable or biodegradable by 2025.

The company has already begun reducing the use of virgin plastic by incorporating post-consumer recycled (PCR) materials in packaging designs across

some business units. Through improved packaging designs, Unilever reduced the use of virgin plastics by 6,800 metric tonnes for its product packaging in 2023. In the same year, Unilever's products used 3,200 metric tonnes of either PCR or recycled plastics, with initiatives to replace non-recyclable sachet packaging with recyclable alternatives, such as monolayer sachets and PP cups. Additionally, Unilever continues to expand waste collection and segregation efforts, for which it established 4,000 Waste Banks across 50 cities and regencies in 13 provinces by 2023, which achieved the collection of 28,317 metric tonnes of post-consumer plastic waste. Downstream, Unilever leverages waste as a raw material for production and other purposes, and processed 27,842 metric tonnes of plastic waste in 2023 alone.<sup>4</sup>

## Circular Economy impact

Unilever is contributing to circular economy with innovations and design changes in packaging that result in lower material weight per unit of packaging (lightweighting), demonstrating resource efficiency. Moreover, it is incorporating recycled materials into the packaging designs, showing resource circularity.

Unilever has introduced eco-friendly product packaging using recyclable materials and post-consumer recycled (PCR) materials to reduce reliance on virgin plastics. In 2023 in the beauty and wellbeing business segment, Unilever used 871 metric tonnes of PCR, a 60% reduction compared to 2022, and achieved an absolute plastic usage reduction of 71 metric tonnes. In personal care products, the company transitioned packaging materials from non-recyclable aluminium barrier laminate (ABL) to recyclable plastic barrier laminate (PBL), resulting in a total reduction of 568 tonnes of virgin plastic use in 2023 alone. By 2025, Unilever aims to eliminate 2,600 tonnes of virgin plastics use in personal care products compared to the 2019 baseline. For home care products, Unilever reduced virgin plastic usage by 2,500 metric tonnes, constituting a 21% reduction in total plastic use. This reduction included an 8% absolute plastic reduction and inclusion of 12% use PCR material for the bottle and pouch packaging. In the ice cream segment, Unilever decreased virgin plastic usage by 155 metric tonnes by transitioning from multilayer to monolayer packaging. Additionally, in the nutrition sector, 100% PCR PET is now being used for Bango bottles, replacing 456 metric tonnes of virgin plastic with PCR. Unilever's packaging redesigns extend

1 <https://www.unilever.com/files/8f9a3825-2101-411f-9a31-7e6f176393a4/the-unilever-compass.pdf>

2 <https://www.unilever.co.id/files/92ui5egz/production/ba9972c8e9b67db52b98f3453c8e5000ace35b30.pdf>

3 <https://finance.detik.com/ekonomi-hijau/d-7483462/unilever-targetkan-pengumpulan-sampah-plastik-75-ribu-ton-di-2024>

4 <https://www.unilever.co.id/files/92ui5egz/production/ba9972c8e9b67db52b98f3453c8e5000ace35b30.pdf>

to offering products without plastic packaging, facilitated by alternative business models and materials. In 2023, the Unilever Refill Programme was launched to reduce plastic waste and promote sustainable packaging and consumption practices. Operating across 817 locations in Jakarta and Surabaya, this initiative offers consumers a safe and environmentally friendly shopping option: 91,000 l of liquid have been sold without packaging, the equivalent of approximately 130,000 medium-sized consumer packaging units. Currently, 7% of Unilever Indonesia's products feature recyclable packaging, and the company's innovations are expected to reduce 6,800 metric tonnes of plastic waste annually.

## Business and market impact

Unilever Indonesia is contributing to circular economy by reducing plastic usage and switching to recyclable and recycled plastics. Since initiating organisational adjustments in 2022, Unilever has empowered its five business units (Home Care, Personal Care, Beauty & Wellbeing, Nutrition, and Ice Cream) to more effectively implement sustainability measures, enabling each business unit and their respective brands to prioritise their most pressing sustainability issues and achieve specific goals through specific and customized strategies. Aligned with Unilever's global targets, the aim is to cut virgin plastic use by 50%, achieving an absolute reduction of 100,000 metric tonnes, while increasing the use of PCR by 25%. By 2025, all of Unilever's plastic packaging is expected to have been designed for reuse, recycling or composting. Additionally, Unilever is committed to collecting and processing more plastic waste than it sells as plastic packaging, further supporting the sustainability agenda.

## Stakeholders

Unilever, in partnership with its suppliers, has developed new packaging designs for select products that are recyclable, reusable or compostable. The company collaborates extensively in waste collection with initiatives such as Waste Banks, Reduce-Reuse-Recycle Waste Processing Sites (TPS3R), and various waste collectors and aggregators. In 2023, Unilever partnered with Containder for a six-month waste management programme in Biak, Papua, surpassing its initial target by collecting 152 metric tonnes of plastic waste against a target of 150 tonnes. Containder's programme has garnered support from 1,000 app users, 70 active waste suppliers, and a waste bank unit involving 20 workers. Since 2013, Unilever has also partnered with Yayasan Rumah Pelangi, aiming annually to collect and process 4,500 metric tonnes of plastic waste in the Greater Jakarta area. Engaging consumers as active participants,

Unilever encourages waste reduction through a variety of awareness campaigns and programmes. One such initiative includes collaboration with Plastic Pay to implement Reverse Vending Machines (RVMs), where each plastic bottle deposited earns a token financial incentive. This effort not only raises awareness about waste segregation but also promotes responsible waste disposal practices among the public.

## Implementation

Recognising its contribution to plastics and packaging waste, Unilever is taking steps to reduce waste across the supply chain, from upstream to downstream. The company has developed a comprehensive roadmap that has been submitted to the Indonesian Ministry of Environment and Forestry, outlining clear and measurable initiatives to support waste collection and recycling efforts. Unilever does face barriers, which include establishing consistent public participation, managing the high costs of recycling technologies, and addressing the logistical challenges of implementing waste systems across more than one region. To address these challenges, Unilever has leveraged partnerships with Google via Google Business Profiles, Google Maps, and other Google platforms to facilitate public access to Waste Banks and local governments for landfill recovery activities, transforming waste into alternative fuels like RDF. Problems and issues for scaling the programme include ensuring widespread public participation, adapting solutions to diverse regional contexts, and managing economic viability. Unilever's collaboration with the DKI Jakarta government and PT Solusi Bangun Indonesia in landfill mining and RDF production illustrates potential pathways to overcome these challenges, emphasising strong partnerships and innovative solutions in scaling up waste-management and recovery efforts.





## Takeaways

Unilever's approach to reducing plastic waste and promoting recyclable packaging establishes a model for consumer goods packaging. By engaging stakeholders across the supply chain to minimise plastic use, and promoting recycling and waste recovery, Unilever is demonstrating a holistic sustainability approach. Educational initiatives like Generasi Pilah Plastik (Plastic Sorting Generation)<sup>5</sup> educates consumers on responsible waste segregation, thereby fostering public awareness. Embracing circular economy principles through recycling programmes and refuse-derived fuel projects, Unilever is turning waste into a valuable resource, benefitting both communities and the environment. These initiatives serve as an encouraging example for businesses, innovators, governments, and communities to adopt sustainable practices and contribute to global environmental and sustainable development goals.

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5 <https://www.unilever.co.id/news/press-releases/2023/generasi-pilah-plastik-unilever-indonesia-ajak-masyarakat-pintar-pilah-pilih-plastik/>

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