

JUST REUSE

THE WASTE PICKER
PERSPECTIVE ON REUSE

switchasia



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ASHTAKARI
PANCHAYAT



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INTRODUCTION

Most plastic produced in the world today is mismanaged. Emphasis on the “Most”, given that an estimated 95% of packaging plastics, valued at over USD 80 billion annually, are not retained in productive use cycles¹. Research from the Ellen MacArthur Foundation shows that 72% of all plastic packaging materials are not recovered at all, with 40% being landfilled and 32% leaking out of the formal waste stream, either dumped illegally or burned. Of the plastic that is recovered, only 6-9% of plastic waste is recycled. Even the plastics that are processed are downcycled, i.e., turned into lower-value applications which cannot be recycled again (like polyester fibers from PET bottles, dustbins, buckets, and mugs from HDPE, pipes from MLP), leaving only an estimated 2% being recycled in a closed loop². This outcome is down to the fact that we are simply not well-equipped to handle the quantum of plastic waste being generated each day.

One limiting factor is the process of recycling itself. Most plastics can only be recycled 7 to 10 times, slightly losing their viability after each cycle, and recycling has to rely on the addition of virgin polymers to maintain quality. The recycling process itself poses serious environmental and human health risks, particularly for low-income communities, including areas where waste pickers themselves typically live and work, and for workers directly engaged in recycling who are frequently exposed to harmful fumes and emissions without adequate protective equipment³. It is also highly inefficient, with over 30% material losses, rendering it a diminishing recovery pathway for many plastic types⁴.

The second, more insidious factor, is greed. Despite being fully aware of the challenges involved in recycling, large corporations continue to flood the market with these unsustainable materials. They enjoy profits at the expense of the environment, peddling plastics without actually bearing the responsibility of handling or processing them. It is thus abundantly clear that recycling is a “false solution”, with our wasteful consumerist economies to blame. Finding sustainable alternatives for this pattern of destructive consumption is an imperative need of the times. The Reuse Economy has been touted as one such pathway. It consists of intentional systems where packaging material is designed to be used repeatedly for the same purpose. While there has been deserved excitement around reuse, especially in the global north, it is critical to have a nuanced perspective on it and recognise that it may not be a panacea.

This paper examines reuse models through a just transition lens, drawing on the perspective of waste pickers, the most vulnerable and least represented stakeholders within the plastics-waste-environment discourse. It also contextualizes the waste economy within the global south, where the pre-existing conditions may be at odds with prevailing perceptions.

¹ Chloe Brown, Catherine Conway and Helen Robshaw, Unpackaged (2022): A Just Transition to Reusable Packaging

²Global Plastics Policy Centre (2023). Making reuse a reality: A systems approach to tackling single-use plastic pollution. Hilton, J., Northen, S., Bowyer C., & Fletcher, S. Revolution Plastics, UK.

³Samikshya Badal, Kyle Holland, Margaret Foster, Aurora B. Le (2025): The occupational safety and health risks of informal waste workers in Nepal: A mapping review, Safety and Health at Work

⁴From experience at the KP-EU Project PROTOPRINT and interviews with local recyclers.

WASTE PICKERS AND PLASTICS

Waste pickers, around the world, are at the forefront of the effort to protect and safeguard our environment, in any way afforded to them. They collect trash from households, roadsides, and dumps and scour through all sorts of waste each day to segregate, separate, and pick recyclables and prevent them from ending up in landfills and incinerators. Their hard work significantly reduces the quantities of virgin material needed for plastic, paper, and glass products, and forms the foundation of the recycling sector. Waste pickers have also been instrumental in enabling the few, long-established reuse systems that have operated at scale, such as glass bottle return systems in the beverage industry, demonstrating their critical role in circular material flows.

WASTE PICKERS IN PUNE

Over 5 million waste pickers currently reside in India, toiling in unsafe and unhealthy working conditions, without any access to social protection. Belonging mostly to lower castes, despite being indispensable to cities and urban areas, their labour is largely ignored by local governments. Forced to work in informal settings, waste pickers are invariably dependent on the recyclables they collect for their incomes. Where they have been integrated into semi-formal settings, like in Pune, recyclables are recovered with remarkable efficiency. The 3900+ waste pickers of the SWaCH cooperative⁵ in the city recover an astounding 35% of the daily dry waste generated for recycling⁶.

Having the right to sell the waste they collect further incentivises Pune's waste pickers to sustain these numbers. With recovery rates of 46% and 37% respectively, paper and plastics form the bulk of the 109 MT of waste recycled in the city each day. Glass and metal, which are generated in much smaller quantities, also have high recovery rates at 66% and 64% respectively. Plastics are particularly crucial to waste pickers' precarious livelihoods, as they account for 59% of their monthly earnings from scrap⁷. This is consistent across the Indian subcontinent, where waste picker earnings from plastic typically range between 40% and 60%⁸ ⁹. This significant reliance makes it essential to examine how different types of plastics contribute to their overall income basket.

⁵SWaCH (Solid Waste Collection and Handling) is a waste picker-owned cooperative in Pune, India, formed in 2007 by members of the Kagad Kach Patra Kashtakari Panchayat trade union. It partners with the municipal corporation to provide door-to-door waste collection and allied waste management services, integrating 3900+ informal workers into semi-formal systems while promoting source segregation, recycling, and livelihoods for waste pickers.

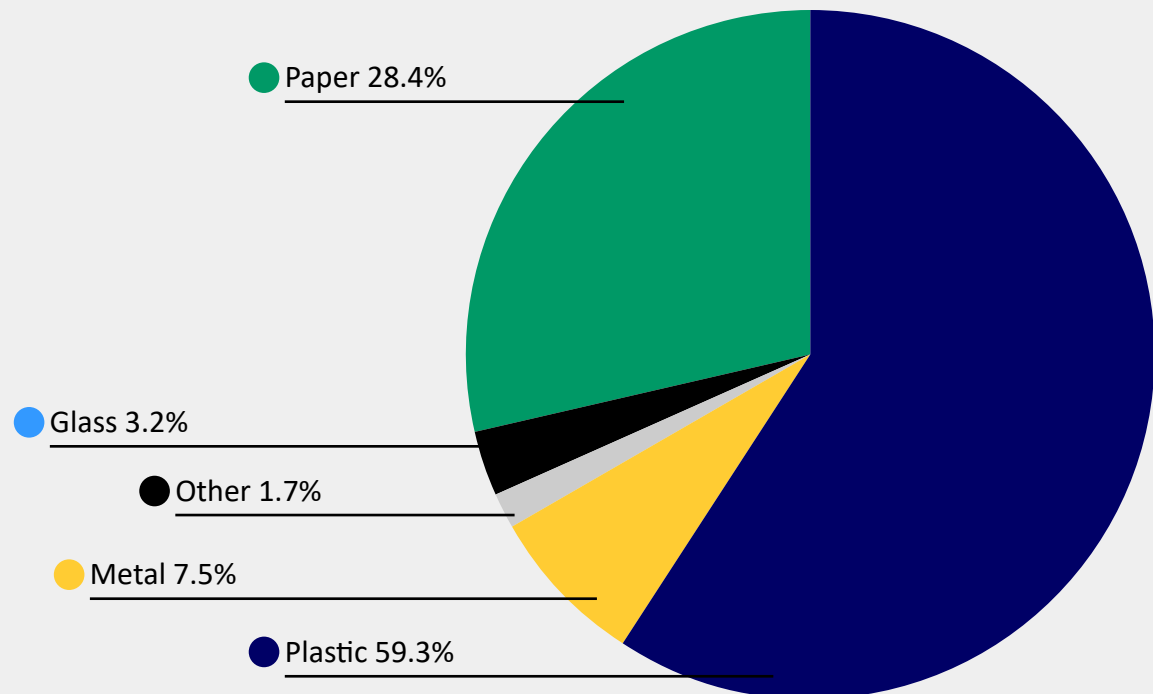
⁶Lakshmi Narayanan, Lubna Anantakrishnan. 'What We Waste: Household waste generation and recovery by waste pickers in Pune', Kashtakari Panchayat, 2022.

⁷Data from Cooperative Scrap Shops in Pune

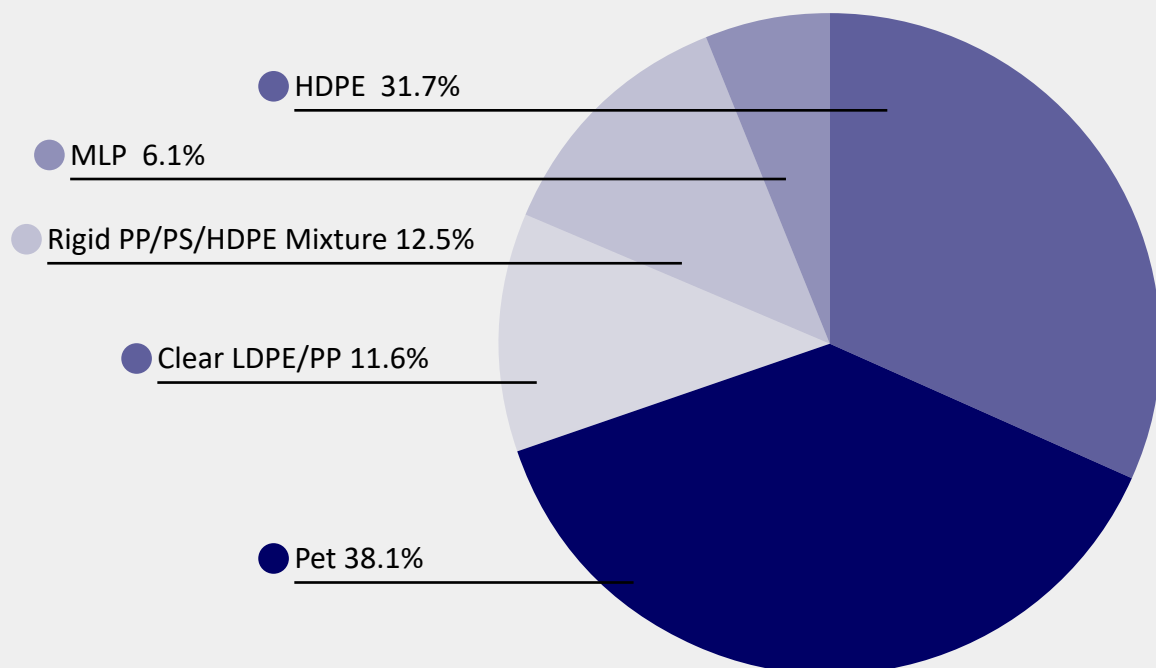
⁸GRID-Arendal (2022). A Seat at the Table: The Role of the Informal Recycling Sector in Plastic Pollution Reduction, and Recommended Policy Changes. GRID-Arendal

⁹Fair Circularity Initiative, Systemiq (2024). A living income for the informal waste sector: A methodology to assess the living income of waste workers in the context of the Global Plastics Treaty

MONTHLY WASTE PICKER EARNINGS FROM SCRAP (%)



WASTE PICKER EARNINGS FROM PLASTICS (%)



In Pune, rigid plastics, which are used for packaging consumer goods like soaps, shampoos, detergents, etc., are recovered at extremely high levels of efficiency— PET (75%), PP (72%), HDPE (83%), and PS (71%). They thus account for 80% of a waste picker's earnings from plastics in a month. In contrast, flexible plastics, particularly food packaging material, have lower recovery, contributing only 18% to their monthly plastic sales. Within flexibles, “clear” plastics are favoured by waste pickers due to their high market rates— LDPE (28%), PP (26%), Milk Packets (25%).

Lower-value plastics, such as MLP (commonly used in sachets for food packaging), present significant challenges for collection, aggregation, and transportation due to high contamination levels, material heterogeneity, and their lightweight and voluminous nature. As a result, they have very low resale and recovery rates and are mostly neglected, with only 6% of metallised MLP being recovered¹⁰. Despite this, these unviable plastics continue to proliferate in the market. SWaCH data¹¹ show that MLP accounts for 35% of all plastic waste and 40% of branded plastic waste. The variability between earnings and scale observed above underscores some key considerations:

1

Prioritisation

It highlights the need to carefully consider which plastics are being targeted for reuse when evaluating the effectiveness of packaging replacement strategies.

2

Consultation

Given the critical role of plastics (particularly rigid) in waste pickers' livelihoods, implementing reuse and refill systems without consulting waste pickers could cause significant disruptions in the market as well as their incomes, and have long-term consequences for their welfare.

Any just transition in the materials economy needs to respect the Waste pickers demand:

“Nothing for us without us.”

¹⁰This has been possible due to the KP-ITC MLP project, which purchases post consumer MLP from waste pickers at ₹5/kg, and is currently processing over 130 MT of MLP each month, bought daily from over 750 waste pickers in the city. In most cities in the country there is no active scrap market for MLP.

¹¹Kashtakari Panchayat (2021). Unwrapped: Exposing India's Top Plastic Producers.

TOWARDS AN INCLUSIVE REUSE ECONOMY

According to the framework set up by the Global Plastics Policy Centre, the reuse economy is a transformative economic model that seeks to move away from the current “take-make-waste” approach. Instead of focusing on maximising the value and utility of packaging material by circulating it through multiple uses, it aims to decouple economic activity from the overconsumption of limited resources, in particular plastics. The same plastics that play a significant role in sustaining waste picker livelihoods, and are entrenched in the local recycling economies, particularly in the developing world, also sustain some of the most vulnerable sections of society.

Waste pickers share the vision of a plastic-free future and recognize the urgent need to protect the environment for future generations, albeit not at the expense of the current one. If the reuse economy is positioned to take over the current value chain, it must shoulder the responsibility of enabling a just transition—one that safeguards the livelihoods of waste pickers, promotes fairness, and fosters inclusion. Achieving this necessitates an extensive impact assessment of the different modalities of the reuse economy, judging each on its feasibility, scalability, and most importantly, its inclusivity.

- Gauging the inclusivity of a model necessitates examining the ratio of the number of livelihoods it makes redundant to its potential to generate jobs that are easily transferable and have low or no entry barriers. The lower the better—is a good rule of thumb to ensure a just transition.
- Scalability relies on two factors. The first, which determines the pool of consumers that an intervention can reach, is the prevailing socio-economic context of the region where the intervention is to be applied. The second, which predicts the level of participation from the said pool, is the relative extent to which consumer behaviour is encouraged or forced to change to conform to the model. If existing industries are going to be affected at the expense of this model, it must sustain comparable scale and market penetration.
- Finally, the feasibility of this transition depends on the extent to which government involvement, through dedicated policy frameworks, is required to make a model both inclusive and scalable.

For this paper, we will be analysing two subcategories of the Reuse Economy - the refill and return models.

In refill models, the customer owns the container or packaging. For example, a customer may purchase a large soap dispenser that can be refilled multiple times, or bring their container to fill with soap. Refills can be accessed in two main ways: “on the go,” where customers visit a refill store, or “at home,” where a refill truck visits the neighborhood to provide products.

In contrast, return systems involve containers or packaging that is owned by manufacturers and leased out to consumers, before re-entering the system, with or without the intervention of external actors (like waste pickers), to be washed, repackaged, and sold. In these models, return can occur at the site of use or designated return stations. The operational structure of these systems can be further classified as closed loop, open loop, or semi-closed loop. Within each of these, returns may happen on-site or on the go, depending on the specific design and context.

¹² International Alliance of Waste Pickers (2024): Reuse Position Paper



REFILL MODELS

1 REFILL AT HOME

In this approach, users purchase a container once and continue to reuse it with product refills that are home-delivered, with minimal or no packaging. To do this, brands need to invest in transport infrastructure that delivers products in bulk dispensers from which customers can obtain their refills. Examples include concentrated products, refill packs, or subscription-based deliveries. In Indonesia, Pokka Refilin's Mobile Pokka Refilin initiative¹³ brings eco-friendly shopping directly to local communities. Large containers of products are loaded onto a cart, allowing the service to travel to neighborhoods where residents can conveniently refill their containers with essential items.

Since the delivery of this model is usually app-based, in developing economies, it is likely to be limited to the middle/upper middle classes, and will thus only have a marginal impact on the usage of rigid plastic packaging for personal and home care products. As mentioned earlier, these plastics are already recovered and recycled at a high level of efficiency, and are not as problematic to the waste stream as other plastic materials. On the other hand, replacing them will lead to a significant loss in waste pickers' livelihoods, given that 80% of their earnings from the sale of plastics come from rigid plastics. A home delivery setup will also entail additional transport, leading to higher emissions, leaving its environmental impact questionable.

The kind of jobs required to run this model are not easily transferable. Waste pickers are the first to point out that reuse models embedded within e-commerce platforms will entirely bypass them. The delivery vendors will require a vehicle and a licence, which will be arduous for female waste pickers to obtain. It will also probably require them to be comfortable with an app-based user interface, which could be an obstacle, given the low digital literacy as well as limited access to smartphones or other appropriate mobile devices within the community. The working hours, too, will not be flexible, leaving the work relatively inaccessible to women. Consumer adoption will also be limited since they will not be able to access their preferred brands through refill services, as only select brands may adopt this model initially. Thus, the refill-at-home model potentially lacks inclusivity, scalability, and feasibility.

¹³GAIA Global Alliance for Incinerator Alternatives (2024): Unpacking Reuse in Asia

Refill At Home



Customers purchase products with reusable packaging



Refills are ordered through subscription models, demand-based models, or delivery services



Customers refill products in a container of their choice.

Refill On The Go



Stores have bulk dispensers instead of individually packed items



Customers bring their containers to the store



REFILL MODELS

2 REFILL ON THE GO

Under this model, consumers are expected to bring their containers to a store or refill station to fill them directly. This model is common for products such as beverages, cleaning supplies, personal care items, and food products like grains. Typically, users retain ownership and responsibility for cleaning the packaging, though in some cases, containers can be rented or borrowed from the vendor. This model allows users to purchase quantities of their choice.

SWaCH's Experience with Refill-on-the-Go

In October 2022, SWaCH, a waste picker organization in Pune, partnered with Refillable Circular Solutions Pvt Ltd to explore the viability of an inclusive “refill on the go” model in the city. While Refillable Circular Solutions started the initiative as part of a government mandate to reduce 7.5 Metric Tonnes of plastic through an environmentally sustainable solution, SWaCH was keen on exploring consumer and waste picker readiness to engage with reuse and assess the number of livelihoods that could be gained, instead of the loss in waste picker earnings due to the reduced packaging the project would result in. The operational model involved a mobile unit that dispensed home care products (such as sanitizers, hand wash, toilet cleaners, and floor disinfectant) along fixed routes.

Right from its inception, the initiative faced several hurdles, staffing being particularly bothersome. Surprisingly so, since Kagad Kaach Patra Kashtakari Panchayat (KKPKP)¹⁴ and SWaCH have consistently demonstrated the willingness and ability of waste pickers to transition into new livelihoods, including roles in decentralized composting, bimethanation, sorting and baling operations, and plastic recycling. Under this model, however, the roles of driver and salesperson for the mobile unit had to be drawn from other urban poor since waste pickers had neither the necessary training nor licenses for these positions. The barrier was not interest or ability, but the bureaucratic hurdles tied to commercial licenses and digital systems, often inaccessible to waste pickers, 60% of whom have not studied beyond the fifth grade¹⁵.

Limited interest from consumers meant that the intervention failed to even reach the break-even point. Over the 18 months of operations, the initiative only managed to sell 1724 litres of product, amounting to a total sale value of ₹302,126. With high operational costs and low revenues, the project was never profitable and amassed losses of up to ₹8,40,000 during its run time. The partnership was formally terminated in March 2024 as it was simply not financially viable. Interestingly, by October of 2024, Refillable Circular Solutions also shut down its Business-to-Consumer partnerships in all cities, including Bengaluru, Chennai, and Surat, refocusing on Business-to-Business (hotels, corporates) wholesale orders.

¹⁴KKPKP is a pioneering trade union of waste pickers in Pune and Pimpri-Chinchwad, India, founded in 1993. It argues that the work of waste pickers is environmentally useful, socially relevant, and critical for reducing solid waste management costs, and advocates for the rights, welfare, and recognition of waste pickers, negotiating with municipal authorities for progressive social protection and inclusive waste management policies.

¹⁵Data from KKPKP membership demographics

The pilot project's limited scope prevented a comprehensive assessment of broader impacts on livelihoods, consumer readiness, or the net effects of reduced packaging on waste picker employment; instead, the experience revealed critical structural barriers that excluded marginalized communities from emerging circular economy opportunities. This experience highlights the gap between policy intentions for inclusive circular systems and the practical support systems needed to make such inclusion viable. Its failure to reach meaningful scale ultimately rendered questions of employment generation and long-term viability both premature and inconclusive.

While this model can cater to people of all socio-economic backgrounds, its biggest issue is the drastic shift in consumer behaviour it requires from the get-go. Getting that sort of buy-in is extremely difficult, especially when other, more convenient options are easily available in the market. Furthermore, it only creates in-store employment, which does not match the skillsets of the largely illiterate waste picker community. Government intervention will be required for both upskilling waste pickers as well as mandating their inclusion in these jobs. Thus, this model is neither inclusive, scalable, nor feasible.



RETURN MODELS

1

CLOSED-LOOP OPERATIONS

In closed-loop systems, the ownership of the packaging material remains with the system, and consumers use and return reusable packaging at fixed sites. Cleaning of used packaging happens either on-site or at an external washing facility. In Hong Kong, for example, the company, We Use¹⁶ coordinates the delivery and collection of reusable tableware for events. After use, the items are professionally washed and sanitized before being prepared for future use. The items are used and returned on-site. This system is also practised in canteens, malls, offices, and hospitals where system-owned cutlery is provided on site for use and return.

These systems, while quite impactful, have a limited scope and can work only in specific situations/locations. Their potential for inclusivity is high, particularly in creating dignified employment for waste pickers in washing, collection, and logistics roles. There is, however, the possibility of large-scale mechanisation within this field, which could again create barriers to entry for waste pickers¹⁷. The Economics of Reuse for Street Vendors in India (2023)¹⁸ shows that even models conceived by informal workers themselves lean toward centralized, mechanised, and automated systems. The reuse system modelled for Kolkata would create only 2,250 jobs for over 80,000 vendors while achieving 86% plastic waste reduction—directly impacting waste picker earnings. Further, the model assumes 10-hour workdays at ₹10,000–12,000 monthly, not just below typical waste picker earnings in Pune but significantly lower than prescribed statutory wages as well.

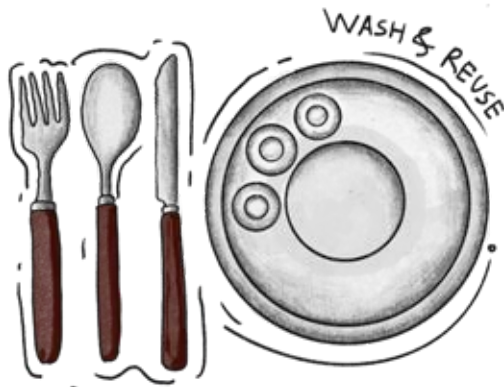
Additionally, even in cases where waste pickers are employed, there could be challenges around compliance with statutory entitlements such as minimum wage, social security contributions, occupational safety, access to grievance redressal, and the right to organise. Addressing these will require explicit inclusive policies that prioritise local waste pickers for roles, dogged oversight of working conditions, and proper enforcement of these policies by the local government. Thus, while closed-loop systems are technically scalable, their social sustainability hinges on proactive policy design and rigorous implementation frameworks.

¹⁶GAIA Global Alliance for Incinerator Alternatives (2024): Unpacking Reuse in Asia

¹⁷Chloe Brown, Catherine Conway and Helen Robshaw, Unpackaged (2022): A Just Transition to Reusable Packaging

¹⁸Searious Business, Zero Waste Europe (2023): Economics of Reuse For street vendors in India

Closed Loop



Hospitals/canteens/schools/concert venues have their own reusable cutlery and utensils. They are returned by consumers at the site of use, and are washed either on or off-site.

Semi Closed Loop



Consumers buy, rent, or borrow reusable packaging products



Products are used away from the site of purchase/adoption



Packaging is washed and sanitized



Consumers return the packaging material to designated drop-off points after use



RETURN MODELS

2 SEMI-CLOSED LOOP OPERATIONS

In semi-closed loop systems, consumers use reusable packaging away from the site of adoption but return it at designated collection points. The service provider is responsible for processing the packaging material to make it suitable for reuse. ReCube is a social enterprise offering reusable tableware rental services to partner restaurants. Customers can return tableware at any partner restaurant, and the high return rate (98%) is attributed to convenience and the deterrent of default fees. Restaurants benefit from cost savings and enhanced reputation as environmentally responsible businesses. Rent-A-Cutlery in India allows users to rent tableware for events, with items returned after use and sanitized for the next customer¹⁹.

Restricted only to restaurants and wedding venues, or events, this system too is limited in its scope, both in terms of scale and the materials it impacts. Although it will potentially reduce dependence on single-use boxes and cutlery, which are slightly harder to recycle due to high levels of contamination, it promotes parallel distribution and collection systems that bypass existing informal waste chains affecting waste picker livelihoods, setting a dangerous precedent going forward.

Zeroware, a Pune-based enterprise, offers a clear case in point. In interviews conducted with their team, they detailed their current operations, which involve servicing corporate offices and individual events by providing reusable crockery and cutlery. Customers are required only to dispose of leftover food; the company handles collection and industrial washing. Items are sanitized using dishwashers operating at 80°C, a standard necessary to meet food-grade hygiene requirements. As a result, handwashing is structurally infeasible and cannot be substituted, precluding traditional roles like manual washing.

Zeroware currently employs 4–5 people, including a driver, two logistics personnel, and two dishwasher operators. While the enterprise expressed openness to hiring from the waste picker community, meaningful inclusion will depend on specialized training for roles such as machine operation, logistics coordination, and customer interface. The employment potential of such models, therefore, hinges on structured skilling pathways and institutional support. Without these, the scaling of semi-closed loop systems risks displacing informal workers under the guise of sustainability.

¹⁹GAIA Global Alliance for Incinerator Alternatives (2024): Unpacking Reuse in Asia



RETURN MODELS

3 OPEN LOOP OPERATIONS

In open-loop systems, consumers use and return packaging away from the point of adoption, with reverse logistics managed by multiple service providers, often including informal workers. Unlike closed or semi-closed loop models, there are no brand-specific return points. Instead, used packaging typically enters the general waste stream and is retrieved by waste pickers during routine collection. These materials are then sold to local scrap shops or aggregators, forming the first node in an extended value chain that links to washing and refilling facilities. The glass beer or coke bottle reuse industry is perhaps the oldest, most established, widespread example, where used bottles entering the waste stream are collected by waste pickers and sold to local scrap shops or aggregators, who sell them on to washing and rebottling plants.

This system operates at scale, without imposing a significant burden on consumers or disrupting existing recycling flows, as middle/upper-class consumers find the deposit or resale value per bottle negligible, while low-income households that consume such beverages often sell them directly to scrap shops. Waste pickers earn through the labour of retrieving and selling bottles in bulk. Critically, the historical efficacy of this model relied on standardised bottle designs, which facilitated ease of sorting and reuse. In India, for instance, the multi-trip glass beer bottle standard (IS2091:1983)²⁰ was formally specified but later archived, eliminating legal enforcement and contributing to heterogeneous bottle designs that have since undermined recovery rates. Reinstating such standards would be essential to restoring system viability.

Applying the closed-loop model's principles of standardisation, decentralised recovery, and informal sector integration to other product categories will require logistical adaptation and product-specific design changes. However, it holds the potential to generate sustained environmental and social benefits through minimal consumer burden and embedding informal livelihoods within circular systems. It exemplifies a pathway for a just transition, meeting the core criteria of inclusivity, scalability, and feasibility in labour-rich, resource-constrained economies.

²⁰The IS 2091.1983 standard, issued by the Bureau of Indian Standards in March 1983, set uniform specifications for multi-trip glass beer bottles (325ml and 650ml), covering dimensions, tolerances, materials, tests, and cleaning procedures.

Open Loop



Consumers purchase products in reusable packaging.



Products are used away from the site of purchase.



Packaging is disposed of as usual.



Waste pickers collect, sort, and sell the material.



Containers are washed, sanitized, and reused/refilled.

Model	Inclusivity	Scalability	Feasibility	'Sugandha Bai' Seal of Approval
Refill at Home	Low: Low: The Number of jobs created (delivery, logistics) is lower than the ones that are lost. New jobs are not easily transferable. The model necessitates licences and skill acquisition by waste pickers in areas such as driving, digital tools, basic measurement, and functional literacy that are not easily accessible to waste pickers.	Low: May not be accessible to lower-income groups due to transport costs and the premium nature of participating brands. Scalability is further limited by logistics and the need to manage large volumes of refill containers.	Low: Requires policy mandate, implementation, and enforcement support for inclusivity in terms of upskilling and ensuring employment of waste pickers in each system, and commitment by each brand to do so.	
Refill on the Go	Low: Informal sector waste pickers are removed from the chain as the customers directly visit the refill store with their containers. Jobs will need digital literacy or the ability to measure, issue bills, and handle cash transactions; jobs lost will exceed jobs created.	Moderate: Can be expanded to urban areas with retail infrastructure. Hinges on the expectation from consumers to carry their containers. Limited by store network and consumer mobility.	Low: Needs extensive policy intervention, implementation, and enforcement to prioritize waste pickers for the few newly created jobs.	
Closed Loop Operations	Moderate: Can provide jobs in washing facilities, especially if policies are inclusive. The risk of mechanization, such as dishwashing facilities, reduces job opportunities.	Moderate: Effective in controlled environments (offices, canteens, events). Limited to specific controlled locations and one-time events. Will not be easily expanded to all consumer goods.	Moderate: Needs policy mandates such as job reservations and proper training centers to ensure waste pickers' participation in washing roles. Implementation is more feasible in controlled environments (e.g., offices, events) where oversight is easier.	

Model	Inclusivity	Scalability	Feasibility	'Sugandha Bai' Seal of Approval
Semi-Closed Loop Operations	Moderate: Some job creation in washing, but parallel systems may bypass the informal waste sector. Access for waste pickers can be cumbersome. Risk of exclusion if systems are fragmented.	Low-Moderate: Restricted to restaurants, events, and specific venues. Dependent on consumer participation and return rates.	Moderate: Needs policy support to enforce inclusivity in washing jobs.	
Open Loop Operations	High: Strongly supports the existing informal waste sector, jobs are easily transferable and accessible. No significant barriers for vulnerable groups, promotes a just transition	High: Operates at a large scale. Minimal burden on consumers. Leverages existing infrastructure and is proven in the beverage industry.	Moderate: Policy intervention for inclusivity will be minimal, but will be required for standardisation of product sizes and shapes as needed.	

RECOMMENDATIONS FOR POLICY INTERVENTIONS

This section suggests targeted policy interventions designed to make the emerging reuse economy not only environmentally viable but also socially just and economically inclusive. Recognising both the risk of livelihood disruptions for informal waste pickers due to reuse and the context of current robust recycling pathways in developing countries, these recommendations focus on ensuring that reuse systems are scaled through robust standardisation, meaningful integration of informal workers, and reprioritising the global focus towards neglected waste streams like flexible plastics. Together, these measures aim to deliver a genuinely circular economy that protects both the environment and vulnerable communities.

1

Prioritisation

The most noteworthy aspect of all of the aforementioned reuse systems is the near-complete absence of focus on flexible packaging material. Instead, they disproportionately target rigid plastics, which not only constitute the bulk of a waste picker's income basket but are also recovered and recycled to relatively higher degrees. Harder to recycle materials like MLP, which are largely fodder for cement factories and waste-to-energy plants, are completely ignored.

Many reuse/refill interventions currently being piloted are effectively boutique services, that operate at small scales and are structured around app-based, doorstep delivery models that typically feature premium brands, requiring substantial upfront packaging deposits and thus remain logistically and financially out of reach for most consumers— including waste pickers and other low-income groups who serve not only as environmental service providers but also as significant end-users of fast-moving consumer goods.

Thus, before widespread adoption of reuse systems, the government must take cognizance of the problems faced by cities and towns in managing specific plastics such as MLP. 'What Waste Pickers (have to) Waste, 2025' presents detailed policy recommendations tailored to increase low-value plastic recovery while holding large corporations responsible. It suggests the following:

- Reversing the recent re-categorisation of flexible plastics and mandating a distinct subcategory for plastic-only MLP, with ambitious, non-substitutable recycling targets.
- Legally requiring producers to pay floor prices that reflect full market costs of collection, transport, sorting, contamination handling, and recycling, ensuring fair incomes for waste pickers.
- Adding a dedicated EPR social welfare levy to finance health, safety, and social protection schemes for waste workers handling high-risk plastics like MLP.

2 Embed Just Transition Principles

All reuse interventions must incorporate binding Just Transition provisions. This entails:

- Acknowledging waste pickers as key players in the plastics value chain. Ensure their involvement in all discussions and stages of the transition, governance, and oversight.
- Mandating employment vulnerability assessments to identify risks to existing waste livelihoods.
- Creating clear transition pathways for affected workers, including funded capacity building, upskilling, and placement in reuse supply chains such as collection, washing, reverse logistics, or related circular economy services.
- Developing local government mandates to integrate the NAMASTE scheme²¹ registered workers into new reuse operations, with specified minimum hiring quotas.
- Independent oversight bodies to track livelihood impacts, job creation, and informal sector integration.

3 Standardisation for Scale, Interoperability and Recycling Efficiency

The government must implement binding national standards for packaging design, sizing, labelling, and reverse logistics. These standards are vital to enable scalable open-loop reuse systems and to strengthen the efficiency and material consistency of the existing recycling sector. Producers should be required to:

- Adopt standardised reusable packaging formats, particularly in sectors with established reuse viability.
- Comply with clear labelling and design protocols that improve sorting accuracy, facilitate high-quality washing, and enable more consistent re-commercialisation of recovered materials, reinforcing both reuse and high-quality closed-loop recycling.
- Ensure safe material composition and design that protects workers at all handling stages—eliminating hazardous additives, sharp edges, and materials that pose health risks during collection, sorting, washing, and reprocessing.

²¹The NAMASTE scheme, launched by the Ministry of Social Justice and Empowerment, is a first-of-its-kind national initiative for the identification, integration, and social protection of waste pickers. KP is one of the first organisations to be empanelled as a Resource Organisation under it.

4

Prioritise and Incentivise Open-Loop Systems

Given their alignment with existing informal waste ecosystems, open-loop reuse models should be prioritised through:

- Preferential permitting and tax benefits for firms standardising and scaling reuse systems that support inclusive recovery and washing operations.
- Financial incentives for businesses that demonstrably integrate informal collectors into open-loop reuse supply chains.
- Rationalised taxation on recyclable and reusable materials by eliminating or significantly reducing GST and other taxes that add unnecessary cost burdens to material recovery systems²², thereby improving price realisation for waste pickers and strengthening the economics of both recycling and reuse value chains.
- Mandating the reservation of decentralised spaces for collection, storage, and cleaning facilities within city development plans and local area zoning to sustain high rates of adoption, parallel to the existing/planned spaces for storing other recyclables, so as not to step on anyone's toes.

²²Ashok, S. (2017). "GST effect: Why are Delhi's waste collectors refusing glass bottles?" The Indian Express. <https://indianexpress.com/article/delhi/gst-effect-why-are-capitals-garbage-collectors-refusing-glass-bottles-4765652/>

CONCLUSION: LEARNING FROM THE FAILURES OF RECYCLING

The transition to reuse systems presents both an opportunity and a warning. While reuse offers a promising pathway away from the linear consumption of plastic packaging, it must not replicate the systemic failures that have plagued recycling for decades. The recycling industry's low recovery rates stem not from technical limitations alone, but from its fundamental unwillingness to internalize the true costs of waste management, leaving vulnerable communities like waste pickers to absorb the economic, social, and environmental burdens of a system designed to maximize producer profits while externalizing responsibility.

The proposed infrastructure investments for reuse—inclusive collection systems, space reservation, suitable infrastructure, public governance frameworks, and producer accountability mechanisms could have transformed recycling outcomes with appropriate policy mandates, implemented and enforced effectively. Instead, recycling systems developed on the periphery, externalizing costs onto the most vulnerable workers, resulting in unsafe working conditions, inadequate wages, and the systematic exclusion of waste pickers from formal recognition and social protection. This pattern of exploitation, wrapped in the language of environmental responsibility, represents a profound failure of policy design that reuse systems must consciously avoid.

Internalising the “true cost” of reuse systems entails acknowledging that sustainable packaging solutions must account for fair wages, environmental protection, and social security throughout the value chain. In order to do so, it requires embracing higher rates and the need for viability gap funding. The policy framework for reuse must therefore be explicit about its commitment to social equity from the outset. Reuse systems must be designed to regenerate clean, green livelihoods, not just reduce waste. It should also cater to a city's economically vulnerable population as consumers. Above all, it must prioritize the communities that have long carried the burden of our wasteful consumption patterns, ensuring that the transition to sustainability is also a transition to justice.

Moreover, brand or product-specific reuse and refill pilots are often piecemeal and lack a holistic, systems approach to materials management. This risks fragmenting the existing recycling economy by diverting relatively high-value, high-recyclability materials. Such approaches can undermine the economic viability of recycling systems, particularly those sustaining waste picker livelihoods. Further, such pilots also often run the risk of failure, as they handle specific products or brands, therefore becoming logistically more cumbersome and expensive to implement or sustain. Reuse strategies must therefore be comprehensive from the outset, with detailed operational and investment plans developed before roll-out, avoiding small-scale, short-sighted pilots that fail to integrate into broader materials management systems.

In sum, reuse must not repeat the failures of recycling. Without an explicit design for social equity and livelihood protection, the shift to reuse risks perpetuating environmental injustice under a different name. Reuse policy must be inclusive by design, scalable by standardisation, and feasible through strong public governance and mandatory producer accountability. Only then can it serve as the foundation for a truly circular economy that regenerates both the environment and livelihoods.

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PANCHAYAT