

Rethinking packaging: How to reduce plastic packaging in retail without increasing food waste



Introduction

“Packaging should serve prevention, not pollution.”

Plastic packaging reduces spoilage and supports food safety, yet it also creates large volumes of plastic waste that existing collection and recycling systems cannot manage. This publication focuses on the **power of supermarkets as the critical junction where food and packaging waste meet.**

Objectives

- Understand the influence of plastic packaging on food waste in the retail sector
- Explore practical and scalable solutions beyond material innovation that can reduce both food and plastic packaging waste

Focus on Brazil, Colombia and Mexico

- Combination of rapidly expanding supermarket sectors, substantial contribution to plastic waste, proactive political initiatives, developing legal frameworks, and growing consumer awareness
- Potential to influence sustainable practices
- Example across the region and beyond for other LMICs

Key findings

“The challenge is not only what materials we use, but how we design, govern and consume them.”

More packaging ≠ less food waste.

High packaging intensity does not automatically reduce food waste.

Packaging effectiveness is context specific.

It depends on factors like product type, supply chain conditions and consumer behaviour.

Fresh produce is the main hotspot for food waste.

Fruits and vegetables account for most losses due to weak cold chains, strict cosmetic standards, and fragmented logistics, not a lack of packaging.

Material innovation must align with infrastructure.

Compostable, bio-based, or fibre-based alternatives reduce environmental impact only if local waste systems support them and if existing supply chains can easily adapt.

Material substitution is not enough.

System redesign is essential. Reuse and refill models and short food supply chains can cut both food and packaging waste.

Policy coherence is critical.

Food waste and packaging policies need to be aligned. They can create the necessary enabling framework for a systemic shift.

Consumer engagement is vital.

Clear labelling, date marking, and in-store guidance can reduce waste and foster acceptance of new packaging models.

Equity and inclusion matter.

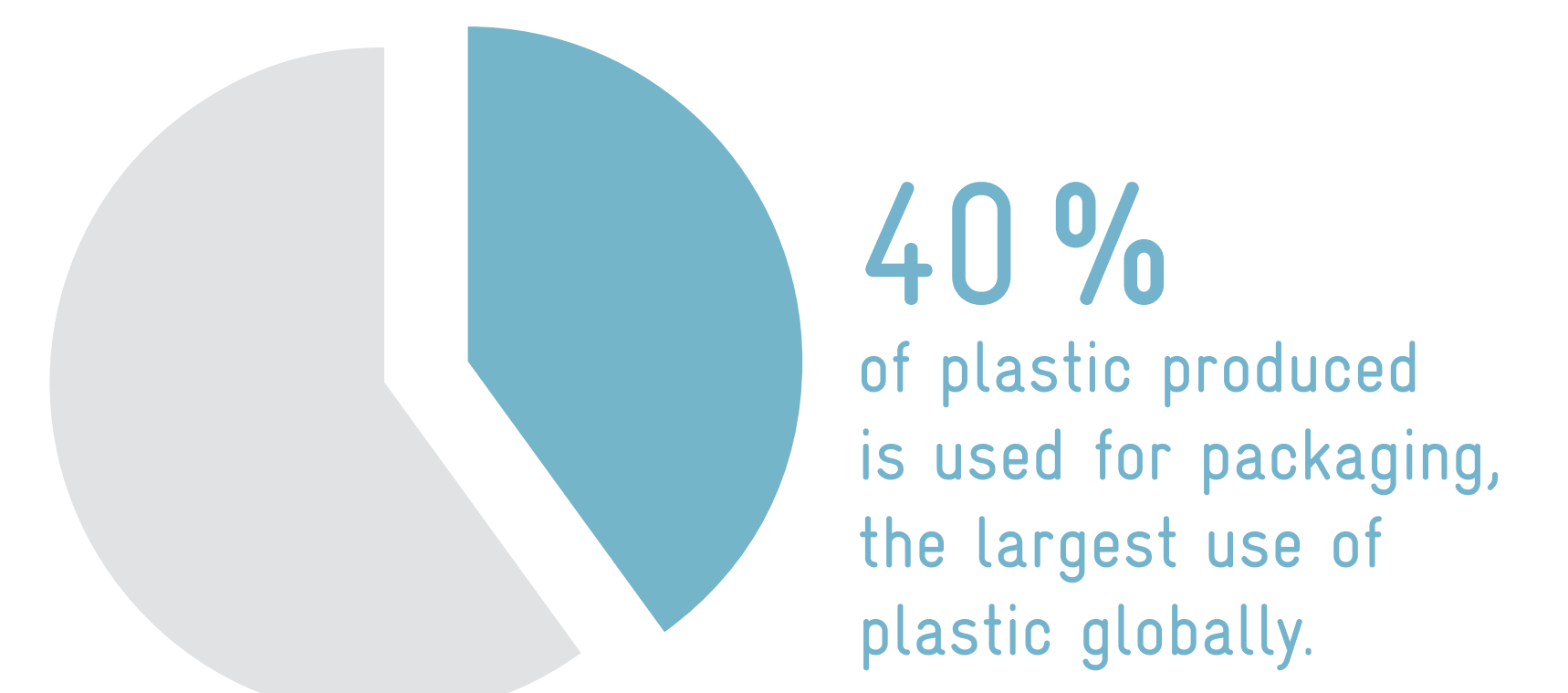
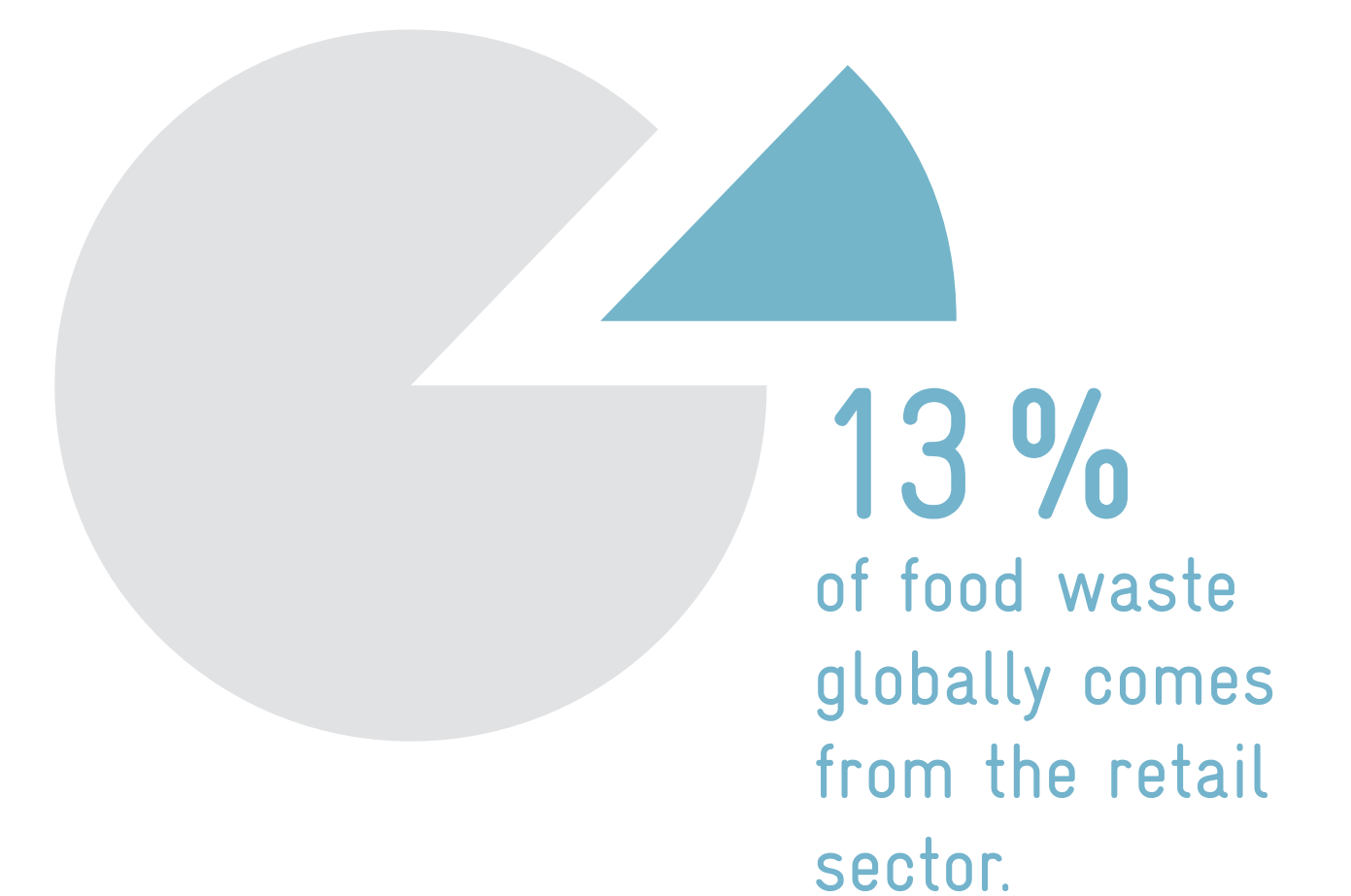
A just transition must consider informal workers, small producers, and low-income consumers to avoid unfair burdens shifts.

The way forward

“Redesign the system – not just the package.”

Packaging alone cannot solve food loss and waste. Integrated strategies combining **material innovation, system redesign, policy frameworks, and consumer engagement** are required.

- **Retailers** must tailor packaging to actual preservation needs, relax cosmetic standards, and inform consumers.
- **Policymakers** must create enabling frameworks, close regulatory gaps, and invest in reuse and recycling infrastructure.



More findings, case studies and actor-specific recommendations in the publication (in download section)



Photos ▶ Fruits: istock/Михаил Руденко; Vegetables: AI generated

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