

From bubble wrap to banana leaves: India's packaging story comes full circle

Once an invisible layer of protection, packaging is now central to product experience, logistics, and environmental impact. In India, this evolution reflects a larger transition—from excess and efficiency to accountability and circularity.

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Remember the iconic bubble wrap - the irresistible air-filled bubbles that practically begged to be popped? That crisp pop-pop-pop sound was a small joy long before fidget spinners arrived. Later, it even became an unlikely stress-relief tool for adults. But this isn't a story about nostalgia or sensory delight. It's about how materials like bubble wrap, along with vast volumes of single-use plastic packaging, came to define modern consumption - and how India is now being pushed, by necessity and policy, toward a more sustainable packaging future.

A zero-waste beginning

Long before plastic and cardboard boxes became ubiquitous, India's packaging solutions were deeply rooted in nature. Everyday materials were sourced locally, requiring minimal processing and leaving behind virtually no waste.

Banana leaves wrapped food and doubled as plates during meals and festivals. Sal and banyan leaves were stitched into disposable containers. Bamboo baskets carried grains, fruits, and vegetables, while jute sacks transported bulk commodities like rice and pulses. Clay pots stored oils, water, and grains.

These materials weren't consciously designed to be "eco-friendly" - they simply reflected a way of life that was inherently sustainable. Leaves decomposed quickly, fibres were reused, and broken clay returned to the soil. What we now describe as "circularity" or "zero-waste" was once embedded in everyday living.

This balance, however, began to shift as trade expanded and colonial influences introduced new materials and methods.

Shift to industrial packaging

The colonial era marked the introduction of tin cans, glass bottles, and paperboard packaging, materials that were more durable, standardised, and suited for long-distance trade. These formats offered convenience and scalability, but also marked the beginning of a departure from biodegradable systems.

The real inflection point came post-1991, when India's economic liberalisation opened the floodgates for FMCG growth. The demand for packaged goods - soaps, snacks, processed foods, and beverages - skyrocketed. Packaging had to keep up.

Flexible plastics such as low-density polyethylene, laminates, and multi-layered pouches quickly became the material of choice. They were lightweight, cost-effective, and extended shelf life—ideal for a rapidly modernising consumer market.

"Earlier, the focus was largely on cost and basic

protection," says Ravi Sharma, Managing Partner, Any Packaging. "But over the last decade, packaging has evolved into a critical part of the product experience, where materials, design, and sustainability all play an equally important role."

By the early 2000s, plastic packaging had firmly established its dominance - delivering convenience, but also laying the foundation for a mounting environmental crisis.

E-commerce and packaging explosion

The next major disruption came with the rise of e-commerce in the 2010s. What began as occasional online shopping quickly turned into a daily habit, driven by smartphone penetration, affordable data, and the convenience of home delivery.

Packaging had to evolve yet again.

No longer confined to store shelves, it now had to endure long transit journeys, multiple handling points, and varying environmental conditions. Materials like bubble wrap, air pillows, foam inserts, and multilayered plastic films became standard to ensure product safety.

"E-commerce has probably created the biggest shift in packaging requirements," Sharma explains. "Packaging now has to be durable, right-sized, and still deliver a strong unboxing experience—it's the first physical interaction a customer has with a brand."

Right-sizing, in particular, has emerged as a critical trend ensuring packaging fits the product closely to reduce both shipping costs and material waste. At the same time, the "unboxing experience" has become a key branding moment, especially for digital-first brands.

Yet, this convenience has come at a cost. India generates millions of tonnes of plastic waste annually, much of it from single-use packaging. Bubble wraps, plastic films, and polybags often end up in landfills, waterways, and open dumps, creating a visible and growing environmental burden.

When logistics meets design

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Any Packaging

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protection it is deeply intertwined with logistics. The journey from factory to consumer has become more complex, and packaging must perform at every stage.

“Clients have become extremely particular about print quality, texture, and finish,” says Pavan Nevatia, CanPac Trends Pvt Ltd. “Even small marks caused during transit can result in rejection, which was not the case earlier.”

This heightened scrutiny has forced manufacturers to rethink packaging design from the ground up. Materials must withstand friction, pressure, and movement without compromising on visual appeal.

“Design is no longer just about how packaging looks,” Nevatia adds. “It has to survive the realities of logistics - handling, stacking, and transportation - while still representing the brand.”

To address these challenges, companies are focusing on structural strength, efficient packing formats, and better material selection. Tight packing reduces internal movement, while improved corrugation and inserts enhance durability.

The sustainability imperative

As the environmental impact of packaging becomes impossible to ignore, sustainability has moved from being a niche concern to a central industry priority.

Government regulations have played a significant role in accelerating this shift. The ban on select single-use plastics and the introduction of Extended Producer Responsibility (EPR) norms are pushing companies to take accountability for the lifecycle of their packaging.

At the same time, consumer awareness is driving demand for eco-friendly alternatives.

“Sustainability has to be balanced with cost, durability, and product protection,” Sharma notes. “What we are seeing is practical sustainability - reducing excess material, improving design efficiency, and gradually moving toward recyclable solutions.”

Instead of overnight transformations, companies are adopting incremental changes, such as switching to mono-material packaging, reducing unnecessary layers, and exploring recyclable or compostable materials.

Innovation meets tradition

The push for sustainability is also driving innovation, often inspired by traditional practices.

Paper-based solutions like honeycomb wraps, moulded pulp trays, and recycled corrugates are gaining popularity as alternatives to plastic cushioning. Agricultural waste materials



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such as bagasse, rice straw, and even banana fibres are being repurposed into biodegradable packaging.

At the same time, startups and research institutions are experimenting with cutting-edge materials - from algae-based films to mycelium packaging.

Technology is also playing a role in making packaging smarter. QR codes, traceability systems, and digital printing are enabling better tracking, customisation, and consumer engagement.

“Automation and digital printing are transforming how packaging is produced,” Sharma adds. “They allow for better efficiency, smaller production runs, and even personalised packaging.”

Road ahead: circular packaging

Looking forward, the industry is moving toward a circular model - where packaging is designed for reuse, recycling, or composting from the outset.

This shift will require collaboration across the value chain - between brands, manufacturers, logistics providers, and policymakers.

“The next big shift will be toward circular packaging systems,” Sharma says. “Companies need to start designing for recyclability from the beginning and invest in more efficient supply chains.”

For companies operating in sectors like FMCG, logistics, and dry fruits, this also means balancing multiple priorities - freshness, shelf life, cost, and sustainability—without compromising on quality.

Coming full circle

India's packaging journey is, in many ways, a story of coming full circle.

From the zero-waste practices of the past to the plastic-heavy convenience of the present, and now toward a more balanced, sustainable future - the evolution reflects broader shifts in how we produce, consume, and think about waste.

As innovation meets tradition, and policy meets practice, the future of packaging in India is being rewritten.

And perhaps, in that future, the solutions will not be entirely new - they will simply be smarter, more conscious versions of what India once did best: creating systems that are efficient, adaptable, and in harmony with the environment.

