

Fact Sheet

What is the Critical Middle?

Most conversations about food sustainability focus on farming and recycling. Yet the greatest influence on food security, emissions and waste occurs in the **Critical Middle: the processing, packaging and distribution stages that connect farm to consumer.**

Packaging is a critical part of this system. It protects food, reduces spoilage, enables distribution and helps ensure food reaches consumers safely and efficiently.

Shifting our focus to what really matters.

Most of the environmental impact happens before a package reaches consumers.

Tetra Pak's 2026 Life Cycle Assessment of Beverage Packaging in Australia and New Zealand found that 98% of a package's carbon footprint is generated before it reaches the shelf, while just 2% is linked to end-of-life treatment.

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Raw material production



Manufacturing



Transport to filling location



Forming, sterilisation & filling



Use of shipper



Transportation to storage



End of life

Why the Critical Middle Matters

1. Reducing food waste and emissions

1.05 billion tonnes of food was wasted globally in 2022.

Food waste is responsible for **8–10% of global greenhouse gas emissions**.

Reducing food loss through innovation across the supply chain helps lower environmental impact.

2. Increasing resource efficiency

Packaging protects food, reduces spoilage and enables efficient distribution.

With a product-to-packaging ratio of **96:4**, and a 1L carton weighing up to **17 times less than glass**, cartons are among the most resource-efficient packaging formats.

3. Strengthening supply chains

Resilient food systems depend on diverse supply chains. Made from approximately **75% renewable wood fibre**, cartons combine renewable and conventional materials to support a flexible and reliable supply chain.

4. Advancing material innovation

Innovation in fibre-based packaging can deliver significant environmental benefits, with **potential greenhouse gas reductions of up to 65% by 2050**, compared with around **20% for plastic**.

5. Supporting Australia's export industry

Cartons play an important role in helping Australian food producers access export markets, with around **30% of dairy exports packaged in cartons**.

Policy should consider the whole food value chain

Policies focused solely on material recovery can create unintended consequences, including increased food waste, higher emissions and reduced supply chain resilience.

To strengthen food security and sustainability outcomes, policy decisions should take a whole-of-system view and recognise the role processing, packaging and distribution plays in delivering safe, affordable food while reducing waste and emissions.