



# Understanding the impact of packaging on the environment throughout the beverage supply chain and ways to minimise this impact

Antoinette Devine

IBD Ghana  
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# Agenda



- **What is Sustainable packaging**
- **What are the key drivers for sustainable packaging**
- **Why the application of life cycle thinking is important throughout the packaging supply chain**
- **Understanding the environmental impact of our packaging materials supply chain**
- **What are the key challenges specific to beverage packaging**
- **What are the benefits to business of a sustainable packaging supply chain**



What is sustainable packaging?



# Definition of packaging



**'packaging' shall mean all products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer.**

**EC Directive 94/62**

<b>Primary Functions:</b>	<b>Secondary functions</b>
Contain	Provide convenience
Protect	At best cost
Preserve	Due consideration for the environmental
Inform	
Sell	



## What is Sustainable packaging?



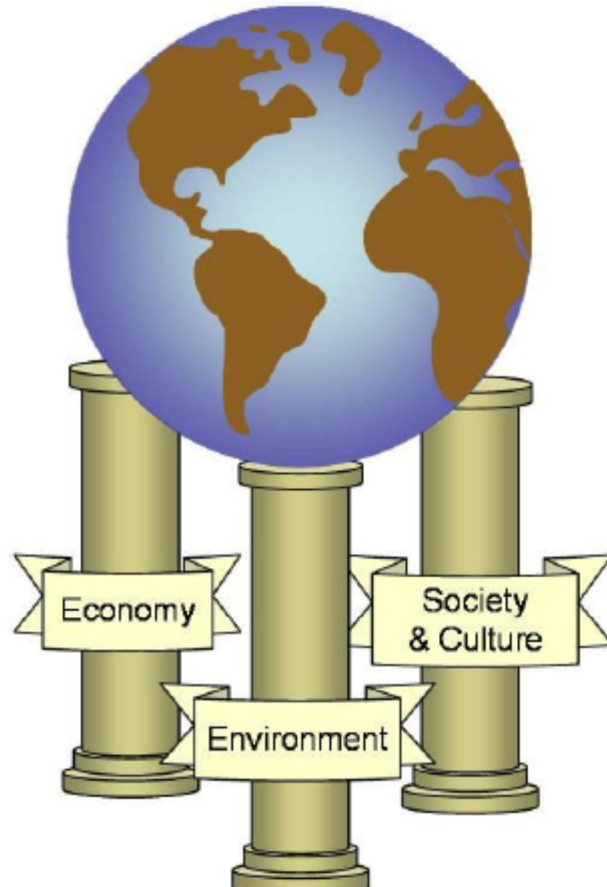
- **A Sustainable Packaging and Product supply chain is a system that enables goods to be produced , distributed, used and recovered with minimum environmental impact at lowest social and economic cost**
- **Packaging makes a positive contribution to sustainability if it reduces damage / spoilage of products by an amount that is greater than the materials / energy / carbon used to make the packaging**

**Ref. Industry Council for Packaging and the Environment (INCPEN)**

**Sustainable packaging: Packaging which must meet the functional and economic needs of the present without compromising the ability of future generations to meet their own needs**



# 3 Pillars of sustainability



**What are the key drivers**



## What are the key drivers



- **Rapidly Developing world**
- **Informed consumers**
- **Power of the retailer**
- **Advanced analytical methods**
- **Rising raw material costs**
- **Legislation and taxation**







## Climate change is a reality

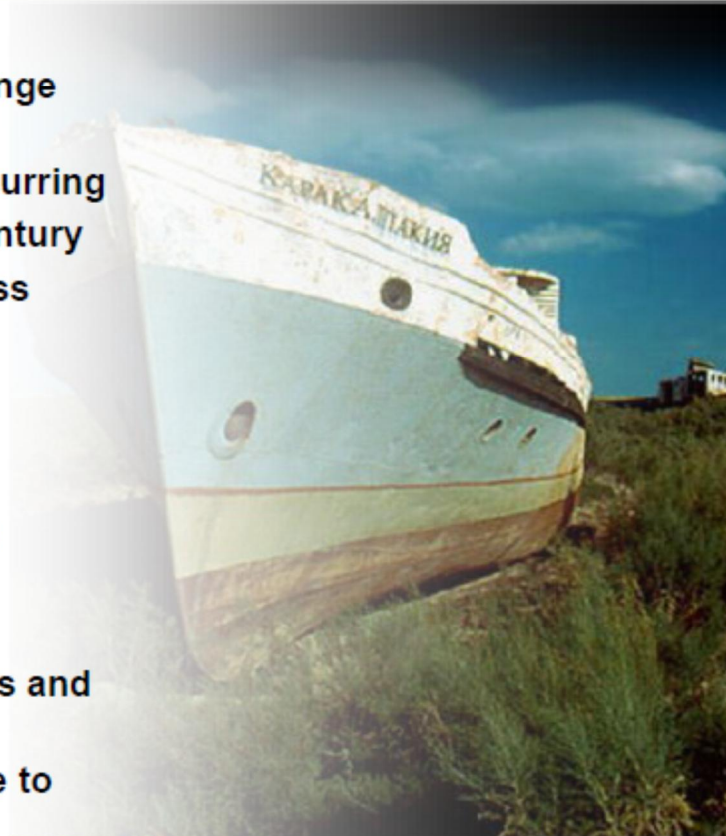


### Intergovernmental Panel on Climate Change (IPCC) fourth report

- 90% certainty that global warming occurring
- 3 degree temperature increase this century
- Rising sea levels; shifting rainfall; mass migration

### The debate is widening

- Scientists becoming more concerned about environmental limits
- Economists projecting the global costs
- Politicians balancing national priorities and global risks
- What role does a global business have to play?





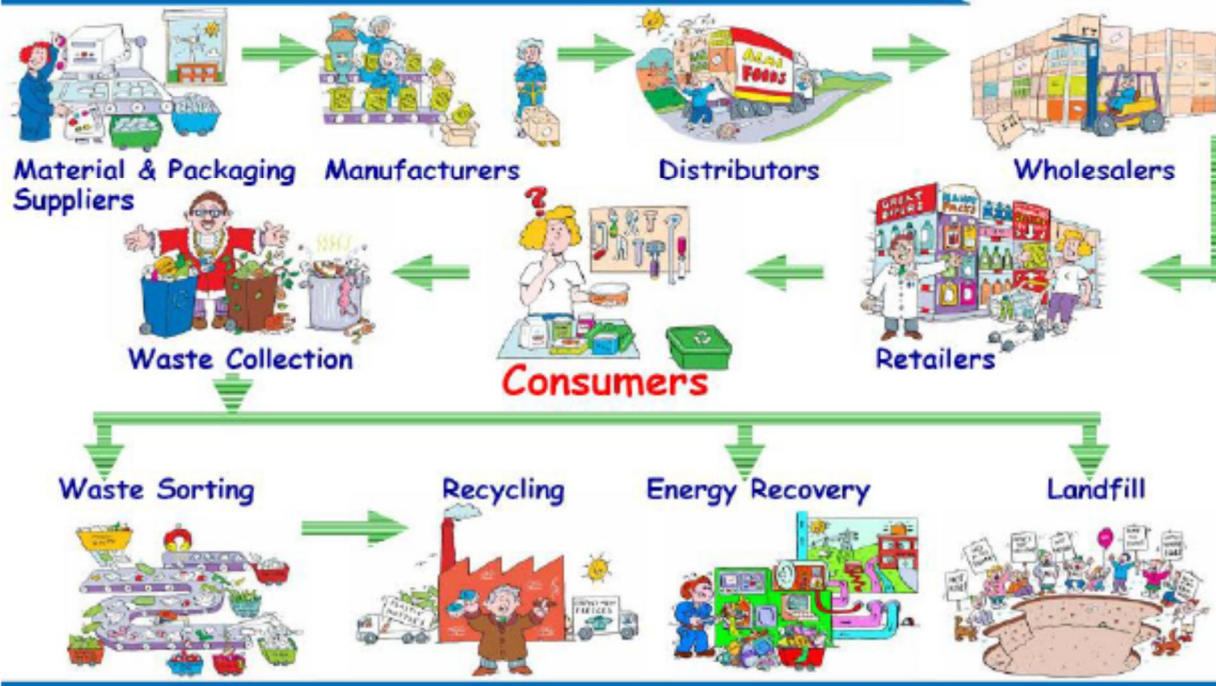
- Mainstream media coverage of sustainable development related issues
- No longer confined to specialist publications
  
- Response from NGOs
  - Becoming a lot more focused in their campaigning activities
  - However we also have an opportunity to work with them



Why the application of life cycle thinking is important throughout the packaging supply chain



# The packaging sustainability chain





- *“Life cycle thinking implies that everyone in the whole chain of a product's life cycle, ...has a responsibility and a role to play, taking into account all the relevant external effects. The impacts of all life cycle stages [materials and manufacturing, use by the customer, disposal and handling at end of use] need to be considered comprehensively when taking informed decisions on production and consumption patterns, policies and management strategies”*

(Klaus Toepfer, Executive Director, in: UNEP, 2004).

- **Life Cycle Assessment (LCA)** is one decision **support tool** in the context of Life Cycle Thinking and is an analytical tool for the systematic evaluation of the potential environmental aspects of a product or service system through all stages of its life cycle.
- Life Cycle Assessment (LCA), Design for Environment (DfE), and Integrated Product Policy (IPP) are all examples for approaches and tools building on the concept of Life Cycle Thinking

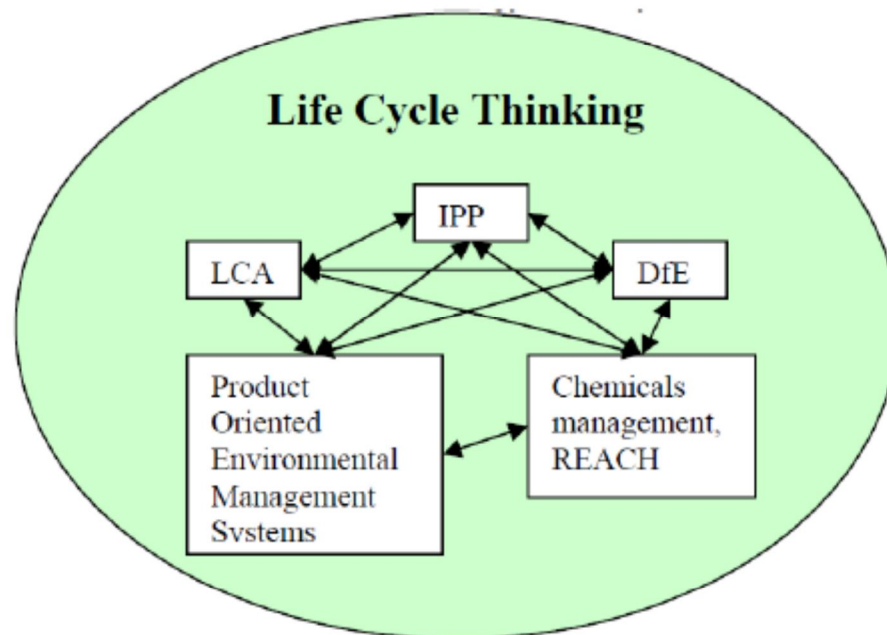


Figure: Relationship between Life Cycle Thinking and related tools

## Understanding the environmental impact of our supply chain



## Some “facts” .....



Glass comes from nature

Steel is the most sustainable packaging material

Corrugated is sustainable by nature

In landfills PET is stable and inert

Cans are infinitely recyclable

paper is the sustainable, renewable choice

Packaging beverages in PET reduces energy consumption by 52%

Aluminium is only used never consumed

Glass containers can be reused

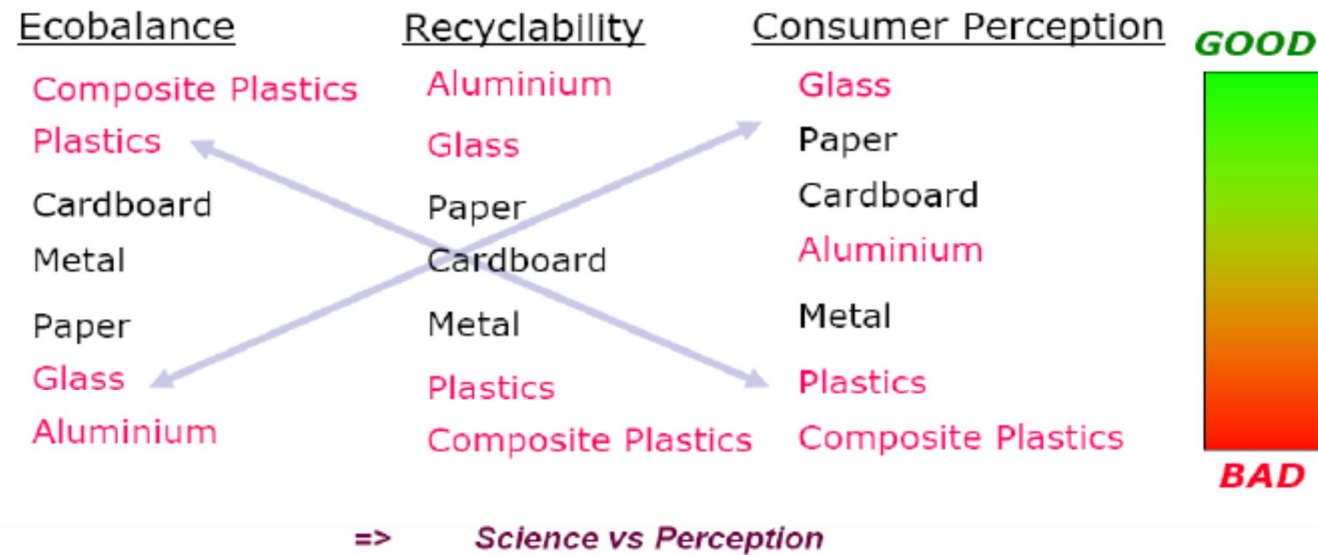
Glass is 100% recyclable





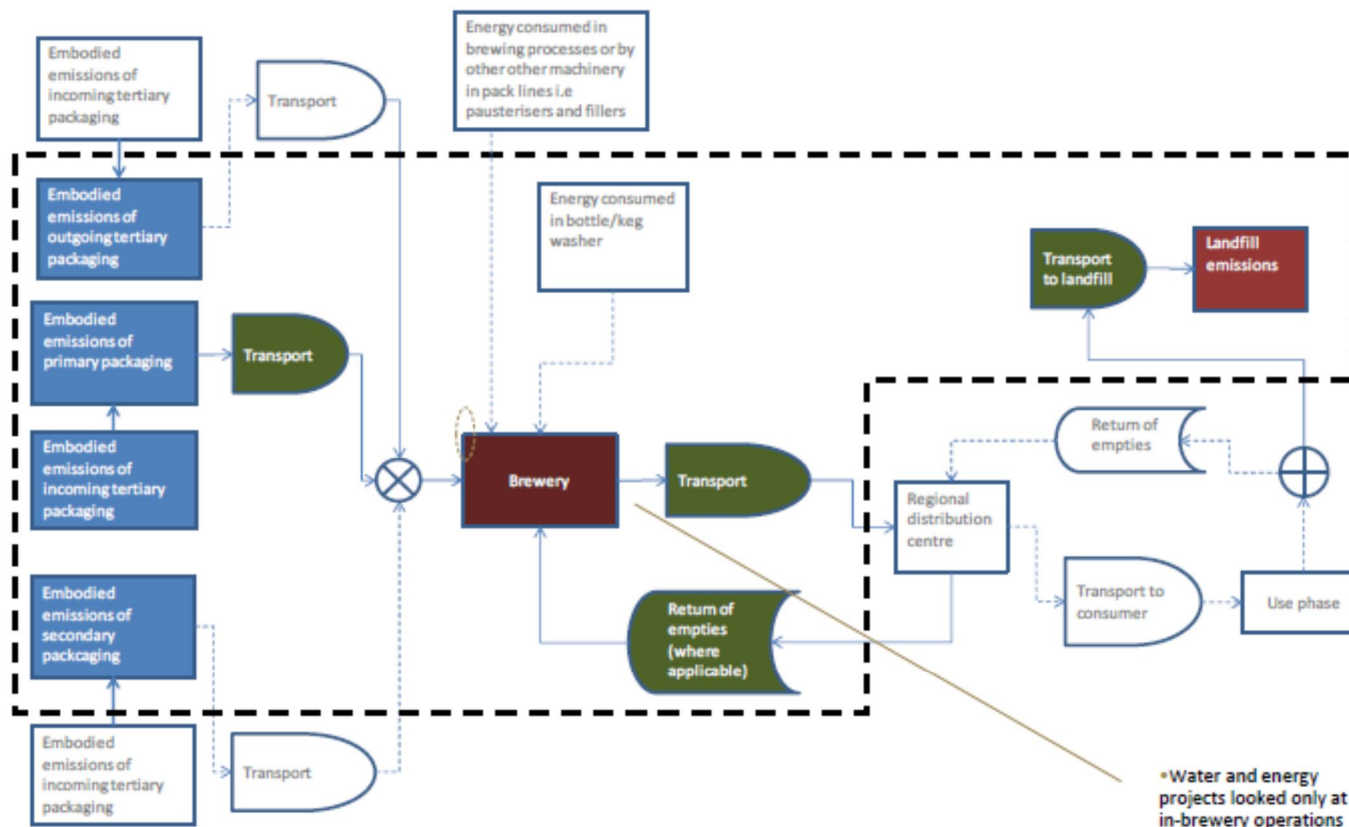
## What does the consumer think?

Ecological Aspects / Relative Value of Packaging Materials



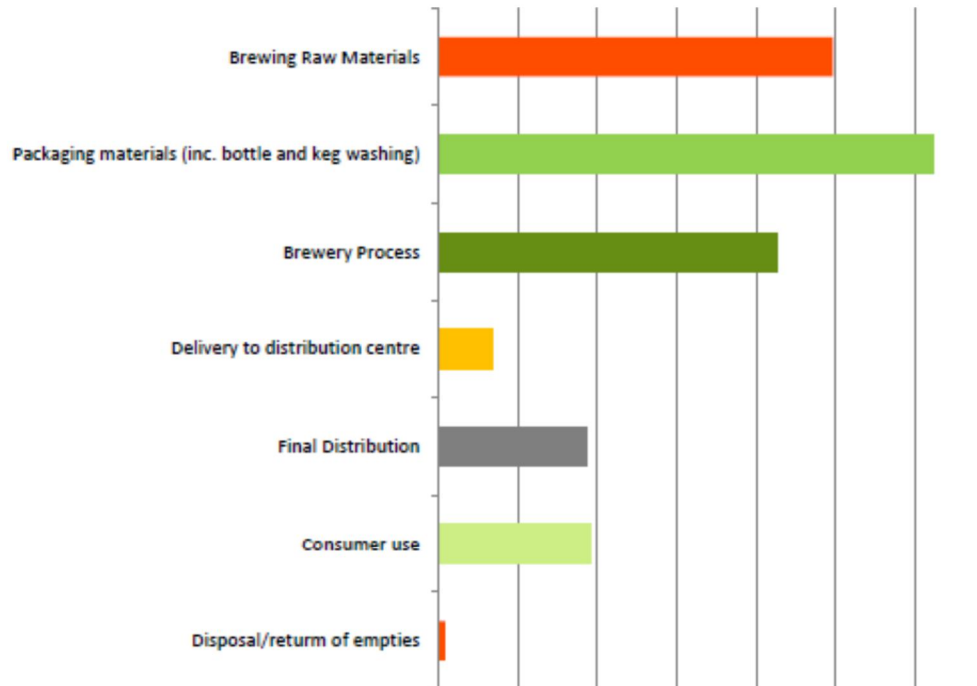


# SABMiller review of our packaging materials supply chain - Assessment boundary detail



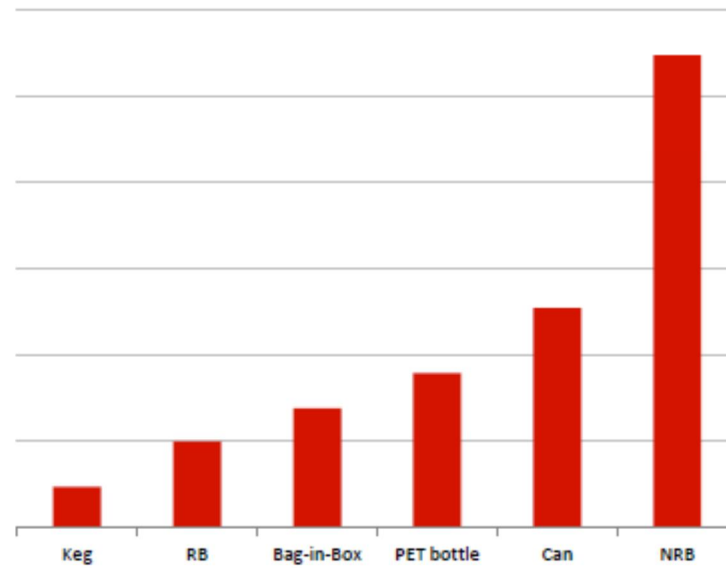


## Packaging supply chain contribution to carbon footprint





## Hierarchy of pack type



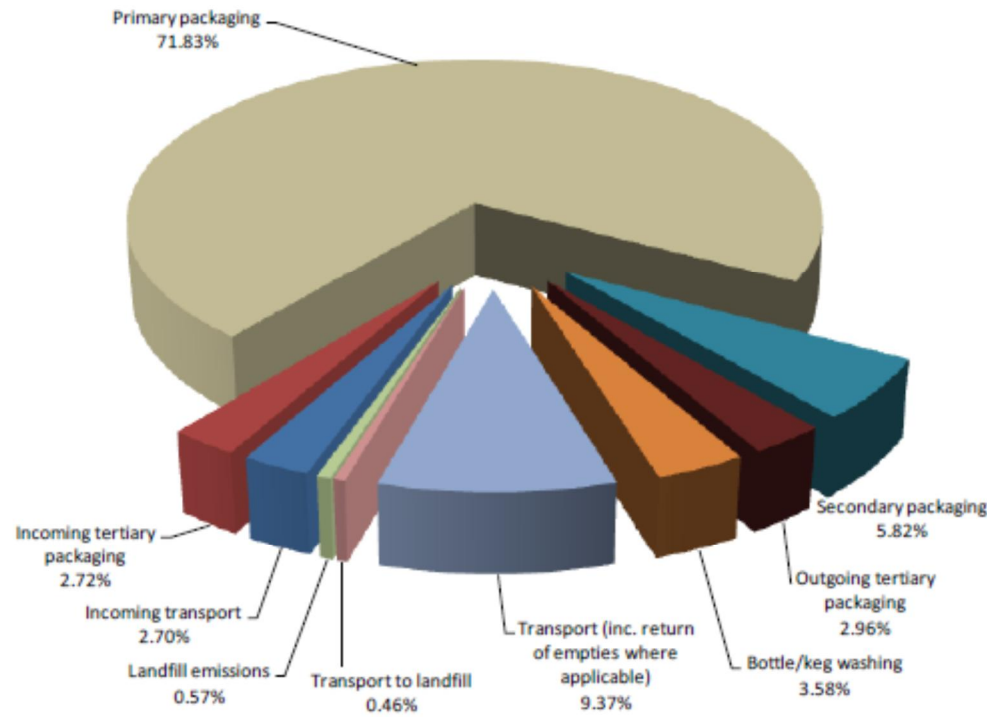
# Challenges and Opportunities of sustainability for beverages



# Opportunity areas and challenge



Breakdown of GHG emissions by source





Spectrum of sustainable packaging opportunities

Reference: ["Thinking Outside the Box: Throw Away Your Current Approach to Packaging,"](#)



**to**

- Make informed choices around material selection appropriate to the market of sale or use
- Understand the impact of consumer trends and marketing dynamics on the environment
- Understand where cost and carbon reduction opportunities exist
- Understand where the future challenges exist





## However



- Packaging Materials are a valuable resource
- Light-weighting opportunities are not infinite
- Improvements in recovery systems are an imperative
- Driving up recycled content is critical for future reductions in carbon impact
- New material technologies are required to drive innovation in beverage packaging for the future
- End to End supply chain partnerships and collaboration are a necessity



**Thank you for your attention**





## References/further reading/Resources



**Global Protocol for sustainable packaging**

**Deloitte “Thinking outside the box – Throw away your current approach to packaging”**

**“Rubbish” Richard Girling – ISBN 1903 919444**

[www.Incpen.org.uk](http://www.Incpen.org.uk)

[www.europen.be](http://www.europen.be)