

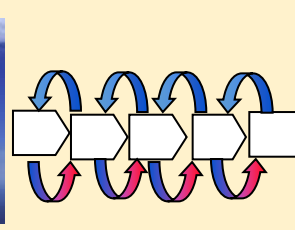
Sustainable Business

Business can have an impact on...

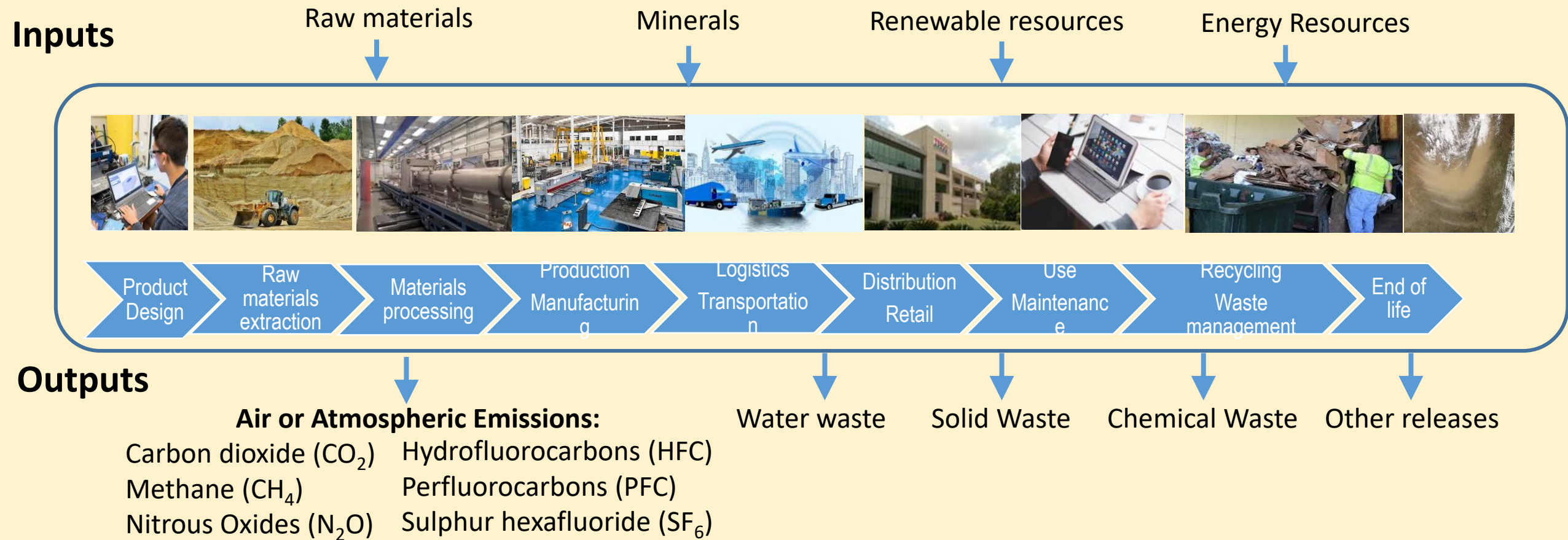


Business trends affecting sustainability

- **Globalisation** – increase in containers and international transport infrastructure: ports, railroads. Production and logistics costs vary.
- **Relationship and outsourcing** – positive impacts: can share resources but also lose control
- **Technology**: trace and track, RFID, order processing and payment processing
- **One-way flow of logistics and supply chains**



Linear Product lifecycle – cradle to grave



The triple bottom line: planet, people, profit



J. Elkington. 1997 *Annibals with Forks: the Triple Bottom Line of 21st Century Business*
Capstone Publishing Ltd., Oxford

UN- The Sustainable Development Goals



ESG Framework using SDG



Berenberg 2018 Understanding the SDGs in Sustainable Investing; Joh Berenberg, Gossler & Co. KG: Hamburg, Germany

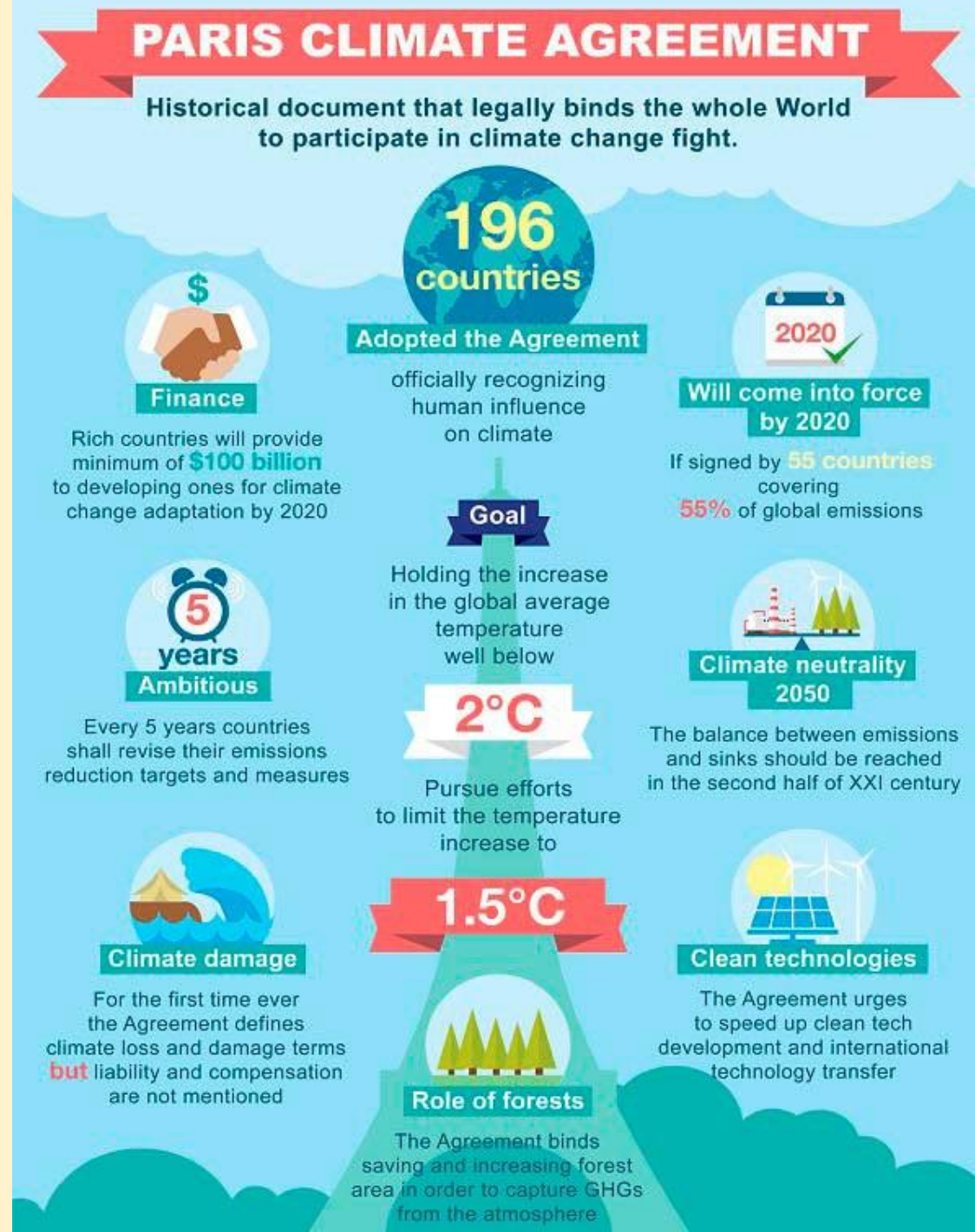
WEF (2021) Net-Zero Challenge: The supply chain opportunity



The image shows the cover of a report from the World Economic Forum. At the top center is the WEF logo. Below it, on a dark blue background, are the words 'Reports' and a 'Download PDF' button with a downward arrow. The main title 'Net-Zero Challenge: The supply chain opportunity' is prominently displayed in white. Below the title is another 'Download PDF' button and four social media icons (Facebook, Twitter, LinkedIn, and YouTube). To the right of the text is a colorful illustration of a multi-story building with various levels representing different stages of a supply chain: a rooftop garden, a kitchen with a bowl of food, a factory floor with a forklift, a laboratory with beakers, a warehouse with a truck, and a car. The text 'In Collaboration with Boston Consulting Group' is written above the illustration. An airplane is shown flying in the sky above the building.

<https://www.weforum.org/reports/net-zero-challenge-the-supply-chain-opportunity>

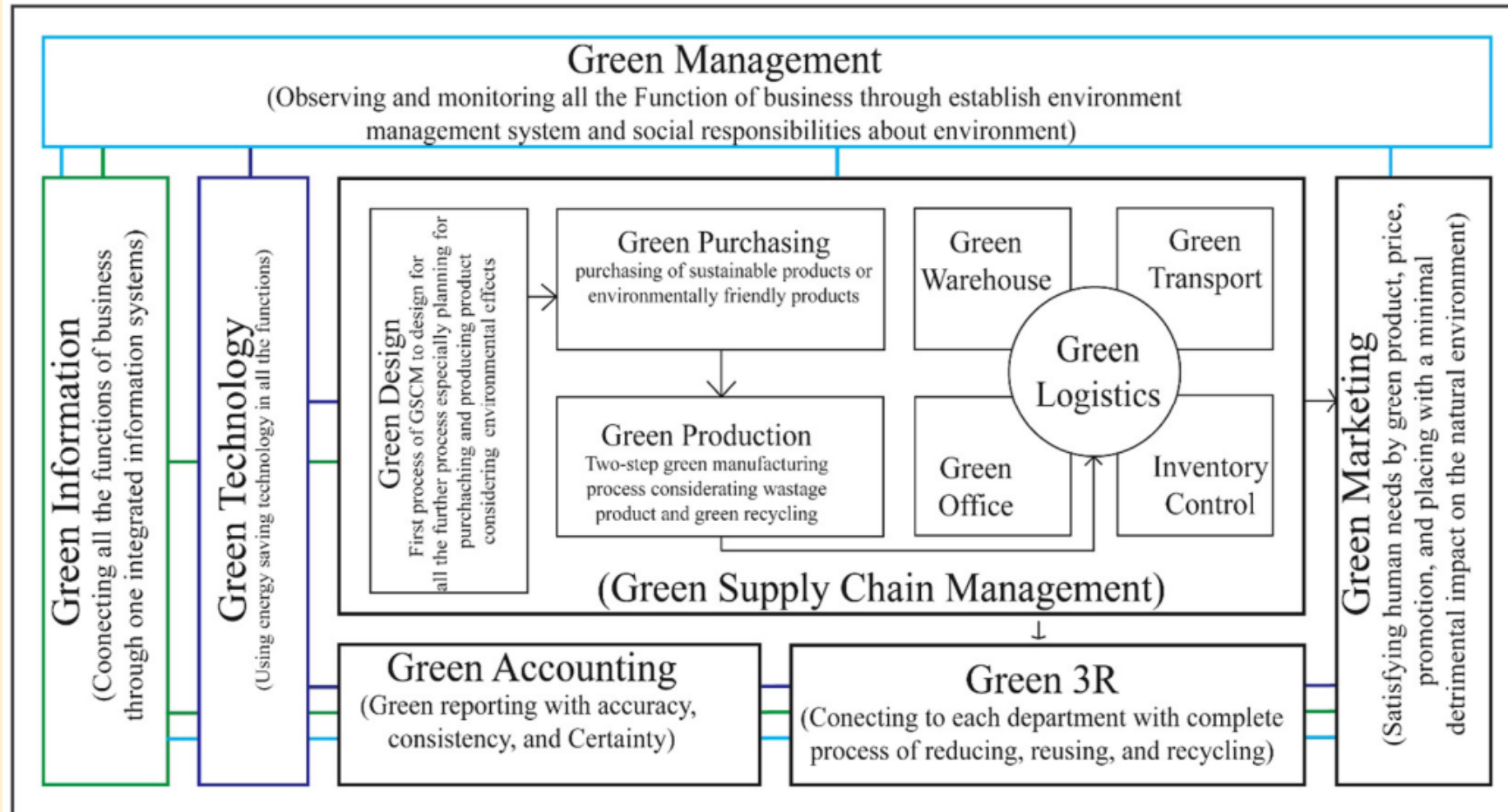
The Paris Agreement



Green Supply Chain Framework (Emmett and Sood, 2010)

Green Supply Chains			
Green Supply Chain Planning	Green Procurement	Green Supply Chain Execution	Carbon Management
<ol style="list-style-type: none"> 1. Lifecycle Engineering 2. S&OP <ul style="list-style-type: none"> • Demand Planning • Supply Planning <ul style="list-style-type: none"> • Production Planning • Inventory Planning 	<ul style="list-style-type: none"> • Collaboration • Incentive Alignment • Supplier Development • Energy-Efficient Procurement 	<ul style="list-style-type: none"> • Green Production • Green Logistics • Green Packaging • Green Marketing • Supply Loops 	Carbon Footprint Minimisation
Green Supply Chain Migration Strategy			
Green Supply Chain Continuous Improvement			
Green Supply Chain Performance Evaluation			

Theoretical Framework of Green Business Value Chain (Hasan et al 2019)



What is the Circular Economy?

- The circular economy is an economic model based on eliminating waste and the continual use of resources

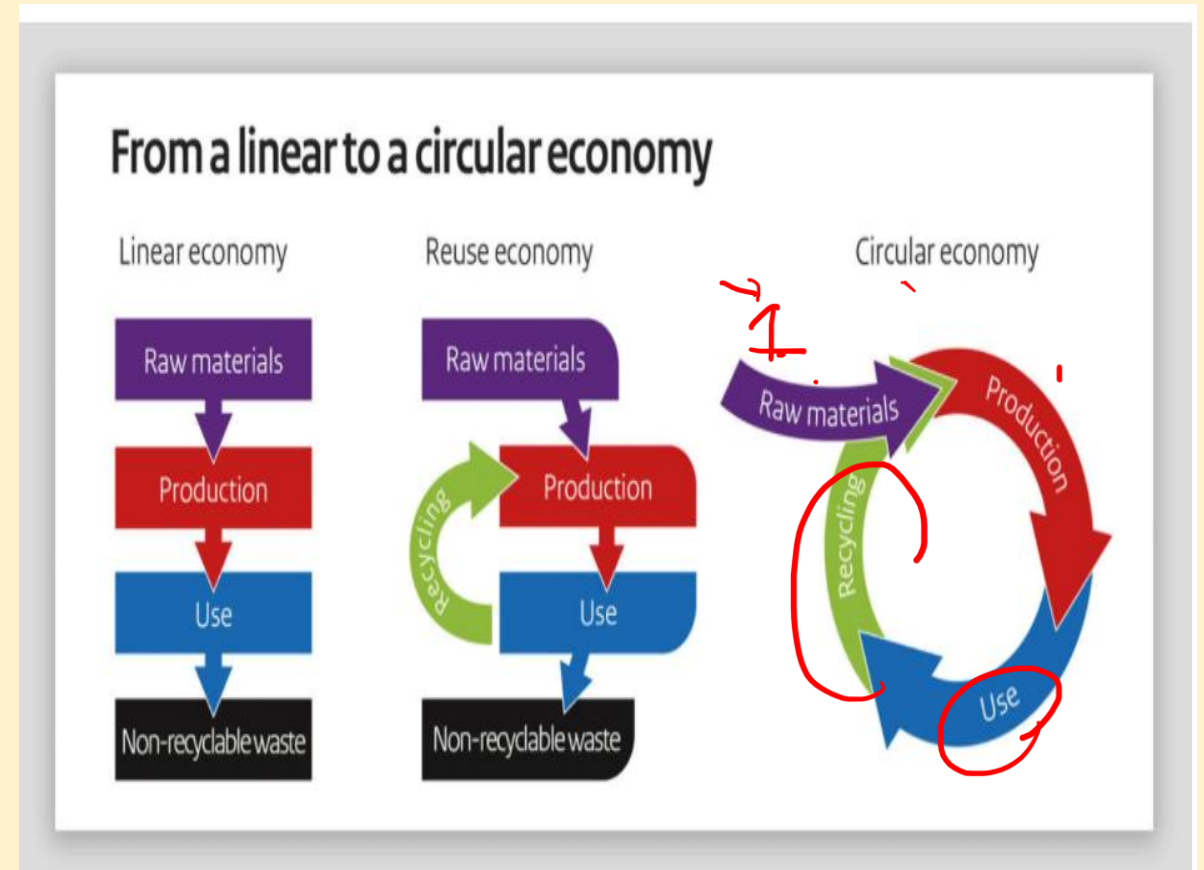
- Circular systems employ:
 - re-use,
 - refurbishment,
 - re-manufacturing, and recycling



- To create a **closed-loop system** to minimize resource inputs and reduce waste, pollution, and carbon emissions
- **Reverse Logistics and Returns Management becomes a key focus**

Moving from linear to circular economy

- The model is a diversion from the linear economy, which focuses merely on the **take, make, consume and dispose**
- To “**make, use, recover, reuse, reclaim.**”



Coca Cola- Sustainable Business

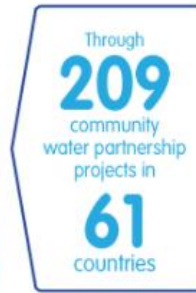
<https://www.coca-colacompany.com/sustainable-business>

WATER STEWARDSHIP

Goals: Improve water efficiency by 25%, help ensure healthy, resilient freshwater systems through conservation efforts with World Wildlife Fund and replenish 100% of the water we use

OUR SYSTEM HAS
INVESTED
\$1B+

over the past
decade in
our wastewater
treatment
initiatives



PACKAGING

Goal: Reach a 75% recovery rate in developed markets of the equivalent amount of bottles and cans we introduce into the marketplace

INNOVATIVE PACKAGING



35 Billion+

PlantBottle™ Packages

have reached the market in nearly **40** countries, as of July 2015, resulting in

743,000+
barrels of oil saved



Coca-Cola placed **6,900+** Recycling Bins at the 2014 FIFA World Cup™ and collected ~450 tons of solid waste.

Since 2008, we have reduced packaging weight by **15%**



ENERGY AND CLIMATE

Goal: Reduce CO₂ emissions embedded in 'the drink in your hand' by 25% through our entire value chain



installed **1.4 MILLION** HFC-free coolers in the global marketplace

Improved energy efficiency by **21%** since 2004



5.6 Million
Energy-management devices have been installed on our refrigerator equipment, saving **~3.1 Million** metric tons of CO₂ emissions a year

metric tons of CO₂ emissions a year



AGRICULTURE

Goal: Sustainably source key agricultural ingredients

Purchased the first Bonsucro certified sugar in 2011



40 SUGARCANE MILLS

have been certified in Brazil and Australia, as of July 2015

Project Catalyst has grown to include **140** SUGARCANE GROWERS and **~500,000 ACRES**

Trained **26,000+** Farmers to help increase corn yields



Project Unnati provides smallholder farmer training on utilizing drip irrigation techniques and is expected to

benefit **25K FARMERS** and expand to **50K ACRES**

Unilever- Planet and Society

<https://www.unilever.com/planet-and-society/>



Zero waste to landfill across Unilever's global factory network | Unilever



<https://www.youtube.com/watch?v=W700bpAPdQw>

Nestlé's Net Zero Roadmap

Sourcing our ingredients sustainably

Working with farmers, suppliers and communities to source ways that protect ecosystems, reduce emissions and enhance livelihoods.

➔ Dairy and livestock
Page 9

➔ Soil and forests
Page 14



Evolving our packaging

Packaging helps keep our food safe but causes waste. Investments in packaging innovations and new business models help keep waste out of landfill.

➔ Page 23



Driving toward cleaner logistics

Optimizing routes, filling vehicles more efficiently, switching to low-emission fuels and renewable electricity and using more rail transport.

➔ Page 32



Moving toward carbon-neutral brands

As consumers demand increasingly transparent and sustainable products, our brands will continue to adapt, embracing sustainability.

➔ Page 40



Transforming our product portfolio

Creating new, low-carbon products, and reformulating existing ones using ingredients and processes that are good for both consumers and planet.

➔ Page 19



Using renewable energy to manufacture our products

Making products more sustainably by switching to renewable electricity, using more renewable fuels and investing in energy efficiency.

➔ Page 28



Removing carbon from the atmosphere

Using nature's own solutions such as agroforestry, soil management, and restoring peatlands and forests to lock GHGs in the ground.

➔ Page 37



Using our voice to galvanize action

Forging deep engagement on climate issues with farmers, industry, governments, NGOs and communities.

➔ Page 44



<https://www.nestle.com/sustainability/sustainable-sourcing/cocoa>

<https://www.nestle.com/sites/default/files/2020-12/nestle-net-zero-roadmap-en.pdf>

Key Measures

- Supply-chain decarbonization
 - Reduce Greenhouse gases in the supply chain
- Reducing the transport-intensity of supply chains
 - Location of Warehousing
 - New forms of logistics transports
 - Multi-modal Transport
- 4 R's- Reduce, re-use, re-cycle, recover