Role of Concrete in Sustainable Development

Building for tomorrow
Introduction

As LafargeHolcim, we want to:

**Lead** in sustainability and set new standards

**Transform** the way our industry works and encourage the whole construction sector to play its part in addressing our planet’s biggest issues

Make a **positive difference** because we have both the opportunity and responsibility
The 2030 Plan
Climate: LafargeHolcim ambition

LafargeHolcim will continue its mission to cut its net CO$_2$ emissions per ton of cement and will help its customers avoid CO$_2$ emissions released from buildings and infrastructure over the whole lifecycle through its portfolio of sustainable products and services.
Climate: LafargeHolcim ambition

- Produce 40% less net CO2 per ton of cement than we did in 1990

- Help our customers avoid 10 million tons of CO2 released every year from their buildings and infrastructure by using our innovative solutions.
  - Low-carbon cement & concrete
  - Insulating concrete
  - Thermal mass solutions
  - Resilience of communities
Example:

- OPC Cement
  - 95% Clinker
- Composite Cement
  - Lower Clinker Content than OPC
  - Improved durability
  - Utilization (conversion) of Waste materials
LafargeHolcim will create more value from waste by transforming it into resources for all our production processes – providing sustainable waste treatment solutions. In urban areas, we will develop the use of construction and demolition waste to produce recycled aggregates.
Circular Economy: LafargeHolcim ambition

- **Use 80 million tons / year** of resources made from waste in our operations.
  - Use of alternative raw materials
  - Waste management services
  - Partnerships to source biomass residues from agriculture and forestry

- **Multiply by 4** our volume of recycled aggregates from construction and demolition waste and reclaimed asphalt paving.
  - Recycled building materials
  - Mobile recycling solutions
Circular Economy: LafargeHolcim ambition

Example:

• Common Waste
  • Deposited as landfill – risk of contamination
  • Burned without heat utilization

• Alternative Fuel for Cement reduction
  • Utilization of waste calorific value
  • Fossil fuel reduction
  • No need for community landfill
Water & Nature: LafargeHolcim ambition

- Save freshwater in all business lines and give more water to communities and nature than we withdraw in water-scarce areas
- Deliver a global positive change on biodiversity in our mining sites
- Provide appropriate hygiene conditions of all workers on our sites
Water & Nature: LafargeHolcim ambition

- Reduce by 30% the amount of freshwater we withdraw to produce each ton of cement.
- Give more water than we withdraw in areas where it’s scarce.
- Ensure access to safe water, sanitation and hygiene to all our employees and contractors on all our operational sites.
- Demonstrate a positive change for biodiversity
Example:

- Basic Concrete without Admixture
  - Average need for 200 l/m³

- Optimized Concrete mix design
  - Water reduction up to 30 %
People & Communities: LafargeHolcim ambition

- Further develop and deploy affordable housing solutions, targeting at the base of the social pyramid
- Provide inclusive business models, education and health programs to support local communities’ economic and social development
- Take a stand against corruption and bribery
- Promote and deploy responsible and sustainable business practices throughout our value chain. In particular, we will act for the universal respect of human rights
- Champion diversity in our sector
- Put health and safety at the center of everything we do
People & Communities: LafargeHolcim ambition

Innovative solution improving comfort of living and sustainability

**AIRIUM**
- fully mineral thermal insulation technology
- safe
- green
- durable
- affordable insulation alternative to traditional insulation

**ACC GOLD**
- water repellent property
- less deterioration
- longer service life
People & Communities: LafargeHolcim ambition

Innovative solution improving comfort of living and sustainability

SPEEDCRETE
- ultrafast road repair solution
- reduction of traffic congestions
- reduction of car emissions
- one stop solution by LafargeHolcim