From Technical Assistance to Industrial Action: Lessons from GICA's Alternative Fuels Pilot

CTCN Technical Assistance for Waste-to-Energy Valorisation in the Algerian Cement Industry















Why Alternative Fuels Matter for GICA



- **14 cement plants** with **21.5 Mt cement production capacity**
- High potential for **waste valorisation in cement kilns**
- Need to build a reliable **alternative-fuels value chain**
- Alternative fuels identified as a key decarbonization lever



Why this matters ?

Cement decarbonization requires solutions that combine:

- **Emissions reduction**
- **Resource efficiency**
- **Industrial feasibility.**



From waste to alternative fuel: The systemic challenge



Waste generation
↓
Collection & logistics
↓
Sorting & pre-processing
↓
Quality control
↓
Co-processing in cement kilns



KEY CHALLENGES

- Reliable waste streams
- Consistent fuel quality
- Collection & logistics
- Regulatory framework
- Coordination across the value chain



From waste to climate impact : The potential



Resource

- **13.1 Mt/year** municipal waste generated annually in Algeria

Energy

- Up to 30% potential natural-gas substitution by alternative fuels
- **~ 450 million Nm^3/ year** natural gas potentially displaced

Climate

- **~ 0.7 Mt CO_2/ year** Potential avoided fossil CO_2 emissions
- **Significant mitigation potential**

The Impact of CTCN Technical Assistance

1st Prize
Sustainability Award Algeria

CTCN TECHNICAL ASSISTANCE

- Knowledge
- Capacity
- Feasibility
- Pilot preparation





A clearer pathway to implementation

- Stronger technical understanding
- Enhanced GICA capacities
- Pilot opportunities identified
- Basis for replication and scale-up




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