Low carbon initiatives in the Indian Brick Sector

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Background

CONSTRUCTION SECTOR IS THE LARGEST CONTRIBUTOR TO CO$_2$ EMISSIONS IN INDIA
Background

60% of CO$_2$ emissions in construction sector are contributed by

- Cement
- Steel
- Bricks
Background

The Indian Brick Sector (estimates)

- Solid clay fired bricks
  - Second largest brick producer in world
  - Most popular building material
  - Annual production – 170 billion / year (approx.)
Background

The Indian Brick Sector (estimates)

• Decentralized unorganized production
  • Annual turnover – Rs. 460,000 million
  • Decentralized production > 120,000 units
  • Seasonal operation
  • Employment to 12 million workers
Background

The Indian Brick Sector (estimates)

- Resource intensive process
  - Single largest source of air pollution
  - 60 million tonnes of coal / year
  - 150 million tonnes of GHG emissions / year
  - Largest consumption of agricultural soil / year
Background

The Indian Brick Sector – technologies used
Background

The Indian Brick Sector – technologies used

Moving Bull Trench Kilns
Background

The Indian Brick Sector – technologies used

Fixed chimney BTK
Background

The Indian Brick Sector – technologies used

- Forced / Fan Draught
- Natural Draught
- Fixed chimney BTK
Background

The Indian Brick Sector - technology mapping

- BTK
- Clamps
- No Bricks
Background

The Indian Brick Sector - Technology mapping
Background

The Indian Brick Sector - living conditions
Potentials and opportunities

Improvement of existing technologies
Potentials and opportunities

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Introduction of new technologies – The EcoKiln
Potentials and opportunities

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Advantages – The EcoKiln

- Diverse scale of production
- Adaptability by all segments of brick production
- Cleaner production methods
- Energy efficiency
- Environmental benefits
- Increased profitability
- Utilization of local unskilled workers
- 365 days of production
Potentials and opportunities

Introduction of new technologies – Fly ash
Potentials and opportunities

Introduction of new technologies

- Energy savings by 30 million tonnes
- 100 million tonnes of CO$_2$
Challenges

SCALING UP
&
SCALING OUT
Way forward

- Increased awareness
- Favorable policies and adequate enforcement
- Improved access to finance
- Change in mindset
THANKS