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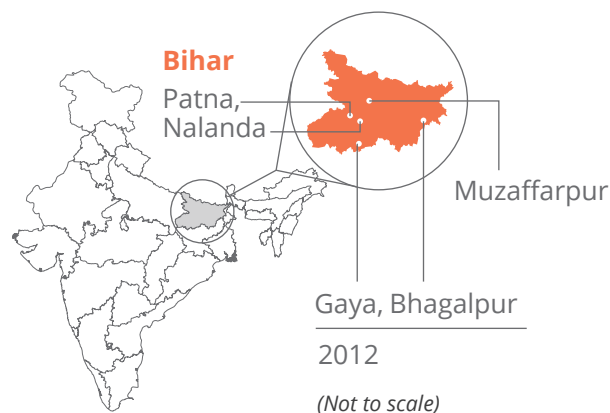
## CASE OF FLY ASH BRICK (FAB) SECTOR IN CITIES OF BIHAR

### Project Highlights

- Reduction of carbon emission through the utilization of cleaner bricks technology
- Utilization of waste material such as fly ash in fly ash brick technology
- Mass awareness and extensive stakeholders' engagement for the promotion of fly ash brick technology as a cleanest technology
- Technical support to fly ash brick enterprises

### Background

In Bihar, the brick sector is the third highest emitter of CO<sub>2</sub> after agriculture and energy. This high rate of emissions is due to the present technology of clay brick firing using coal as a fuel. In manufacturing of these clay bricks agricultural soil is used. The high use of agricultural soil puts an immense pressure on the agricultural activity which is the backbone of Bihar's economy. To decrease the dependences on clay brick technology, over the last six years, Development Alternatives (DA), with support from Shakti Sustainable Energy Foundation (SSEF), has been working to promote cleaner technologies and increase the market share of resource efficient building materials in Bihar with various private and government stakeholders. During the period of DA's intervention from 2012-2018, the market share of fly ash brick (FAB) industry has improved from 0 to 17% at present; of the total brick industry. With current market trends and continued systemic interventions, this market share has potential to reach up to 6% in next 2 years.



### Project Objectives

- To create and sustain a favourable policy environment in Bihar for the promotion of fly ash brick technology as a cleaner brick production technology
- Implementation of Fly Ash Brick Quality Rating System (to overcome the issues of quality of fly ash brick in the state)

### Key Stakeholders

Department of Environment, Forest and Climate Change, Govt. of Bihar, Bihar State Pollution Control Board, Building Construction Department, Fly Ash brick manufactures association and other govt departments

### Key government Initiatives



## Development Alternatives: Greening the Brick Sector in Bihar



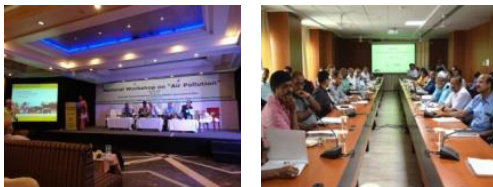
### Technology Solutions Innovation & Research

- Technology know how Fly ash brick making
- Fly ash brick making machine



### Enterprise Support Services-

Business Sustainability Providing Technology support; market linkage; credit linkage and capacity building service to existing and potential fly ash brick entrepreneurs



### Policy Influence-

Favourable Policy Ecosystem

- Technical and advisory support to Govt of Bihar (GoB)
- Preferential procurement policy for green bricks
- Quality control through quality rating programme

## Communication & Outreach Mass Promotion; Demand Stimulation



GIS mapping of fly ash enterprises to validate supply



Mass promotion through workshops like green enterprise mela and awareness workshops



Mass promotion through communication products

## Achievements

- 31 enterprises were enrolled and service provided under FABQRS
- Improvement in the quality depicted after the technical training
- Rising public discourse towards FAB
- Building Construction Department, GoB reinstated procurement of 100% FAB in public sector projects



# Strategy for Intensification

To catalyse transformative change towards cleaner brick technology through technology solutions , enterprise service and policy influence in Bihar

## Focus Area



### Uptake of Fly ash bricks



Technology support and research



1 stop FAB enterprise solution



Partnerships with CSOs, academia, government

### Adoption of other cleaner technologies



Technical know how on cleaner technologies



Enterprise Support services to brick kilns units



Partnerships with CSOs, academia, government

Source: As received from Shakti Foundation and Development Alternative

For more Information

[https://www.devalt.org/images/L2\\_ProjectPdfs/\(4\)FlyAshBrickIndustry.pdf?Tid=162](https://www.devalt.org/images/L2_ProjectPdfs/(4)FlyAshBrickIndustry.pdf?Tid=162)

<https://www.greeneconomycoalition.org/assets/reports/Cape-Town-Global-Meet-2019/India-Country-Posters-GM2019-FINAL-PRINT.pdf>