



National Brick Mission

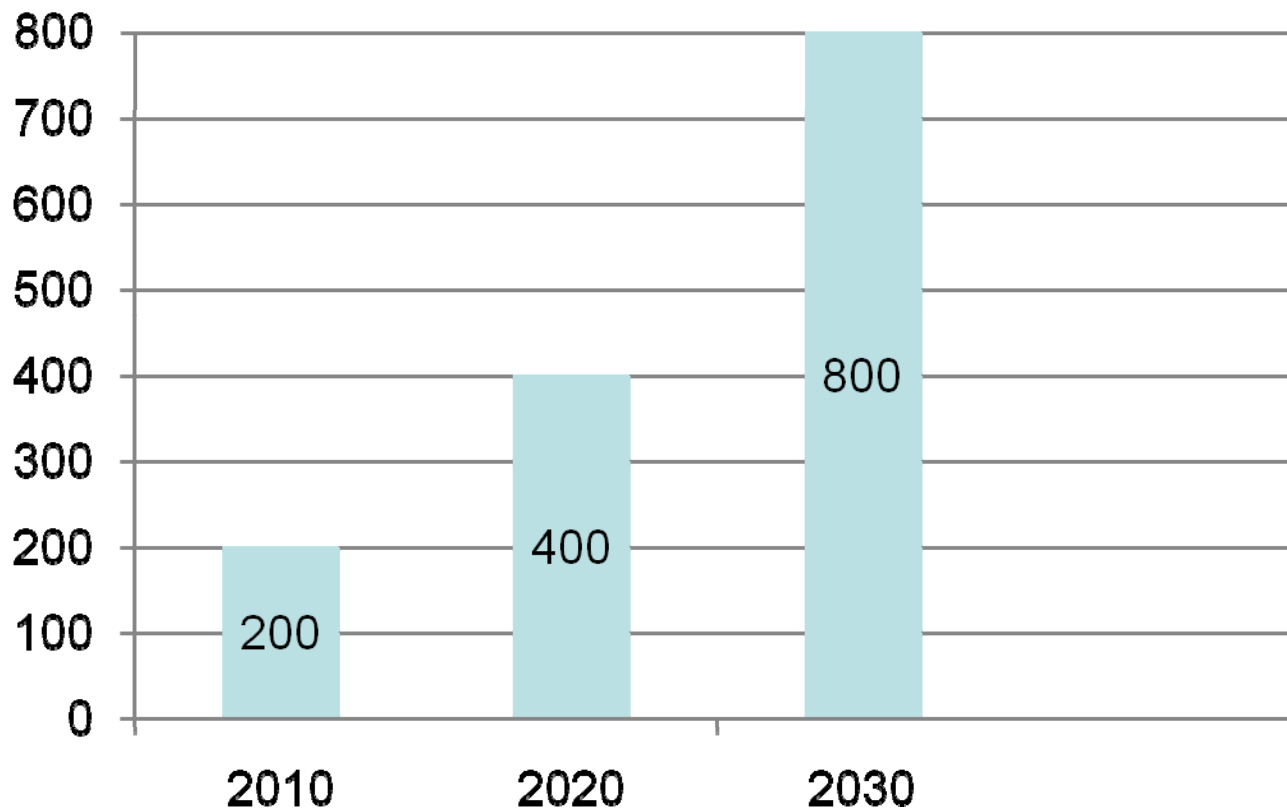
Nivit Kumar Yadav

Programme Manager

Centre for Science and Environment



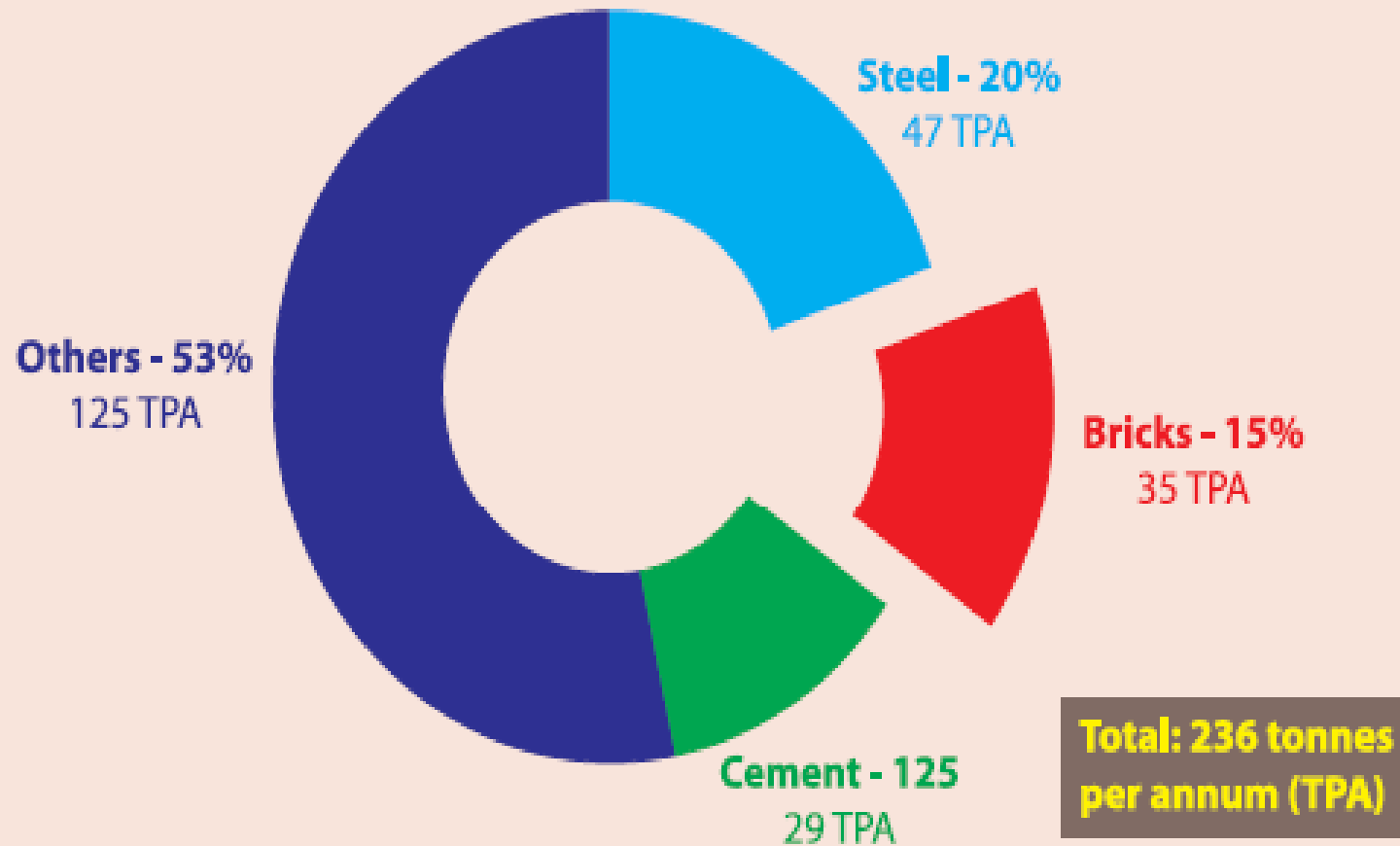
Brick demand



* Market of brick industry – 200 billion bricks @ Rs. 5 = 1000 billion Indian rupees

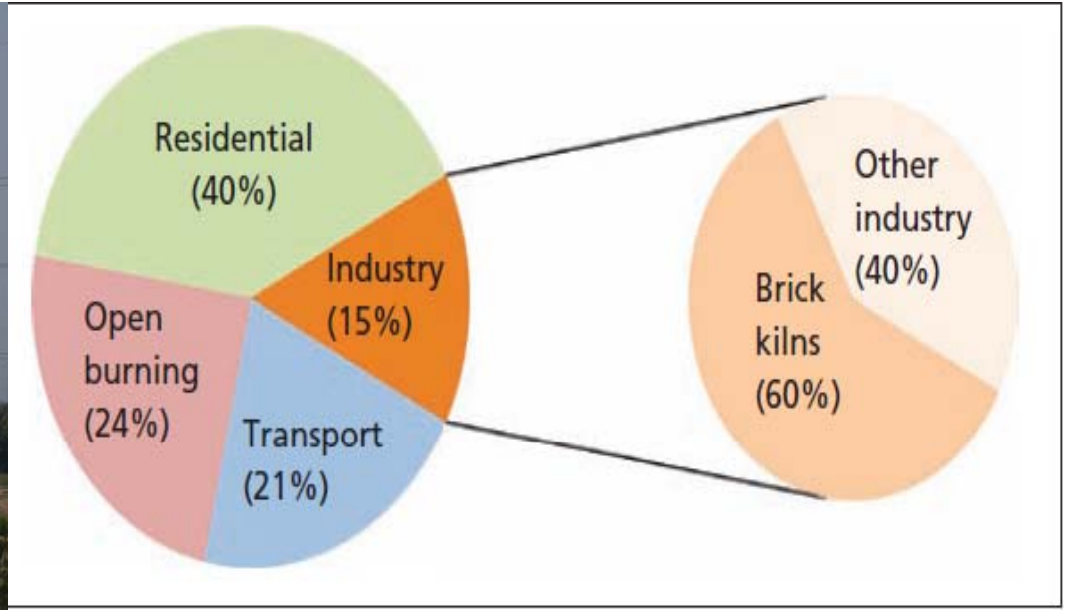


2nd largest industrial consumer of coal





Environmental impacts





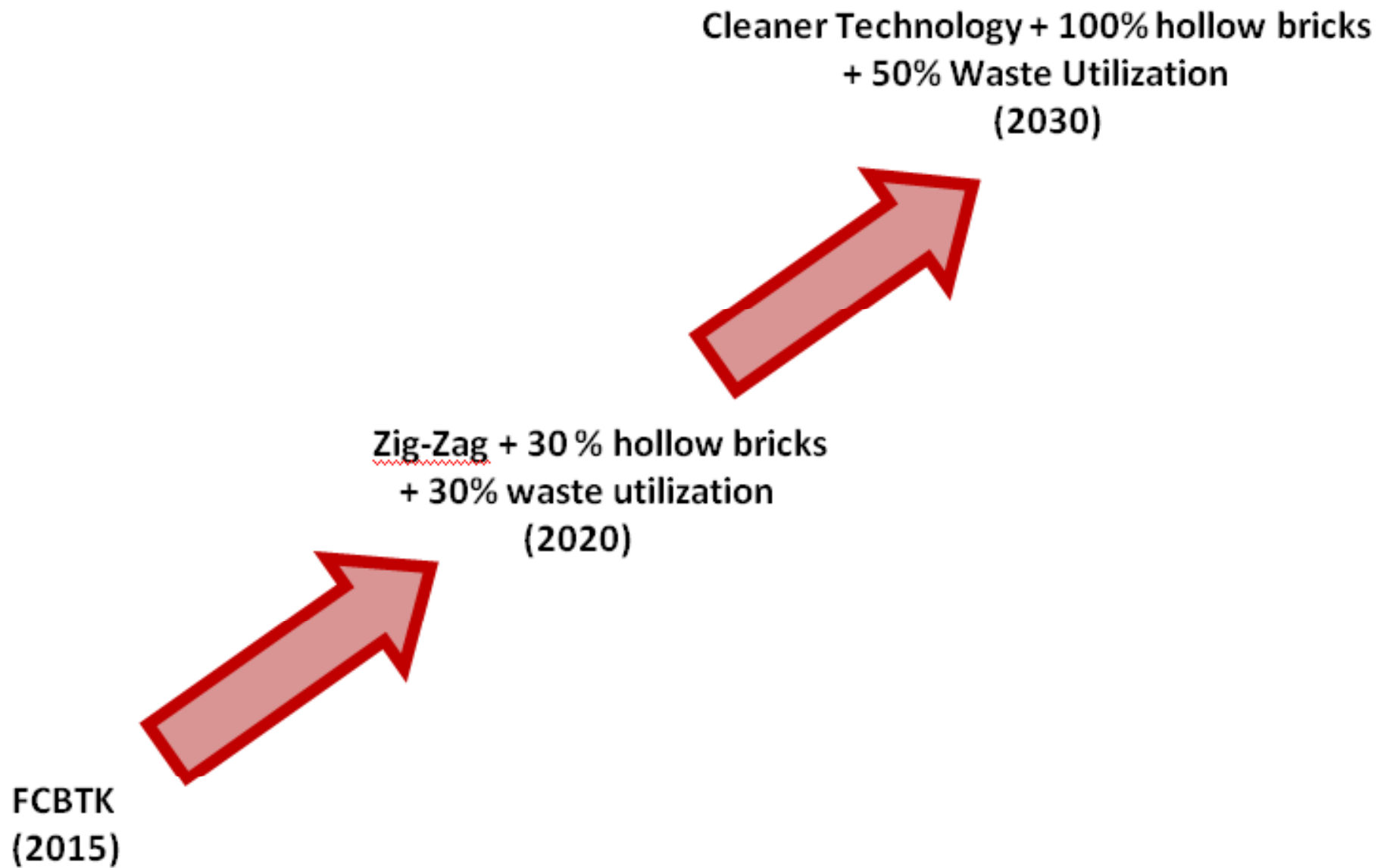
Need of the hour.....

National Brick Mission

- » **Technology roadmap**
- » **Emission roadmap**
- » **Policy roadmap**

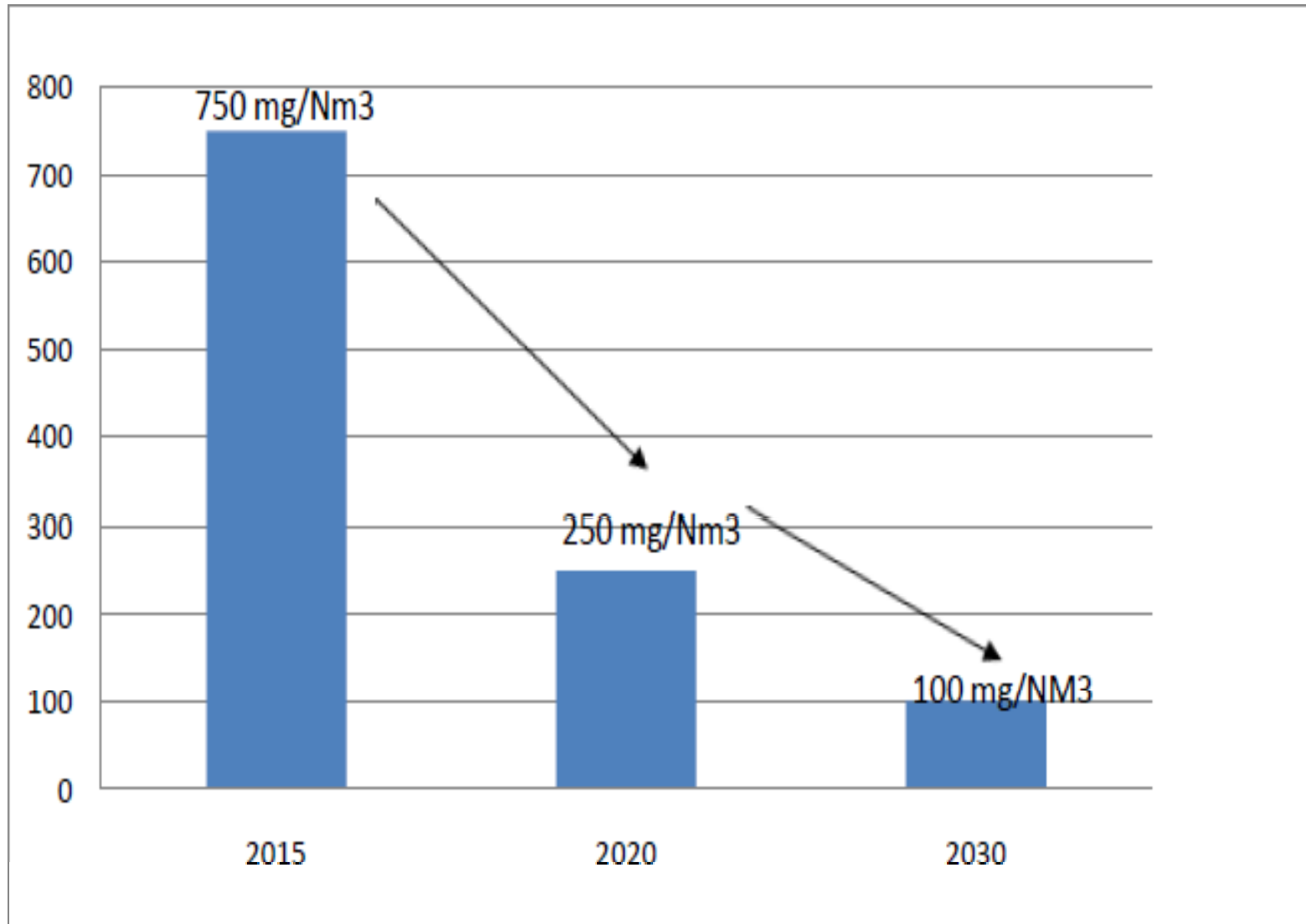


Technology *roadmap*





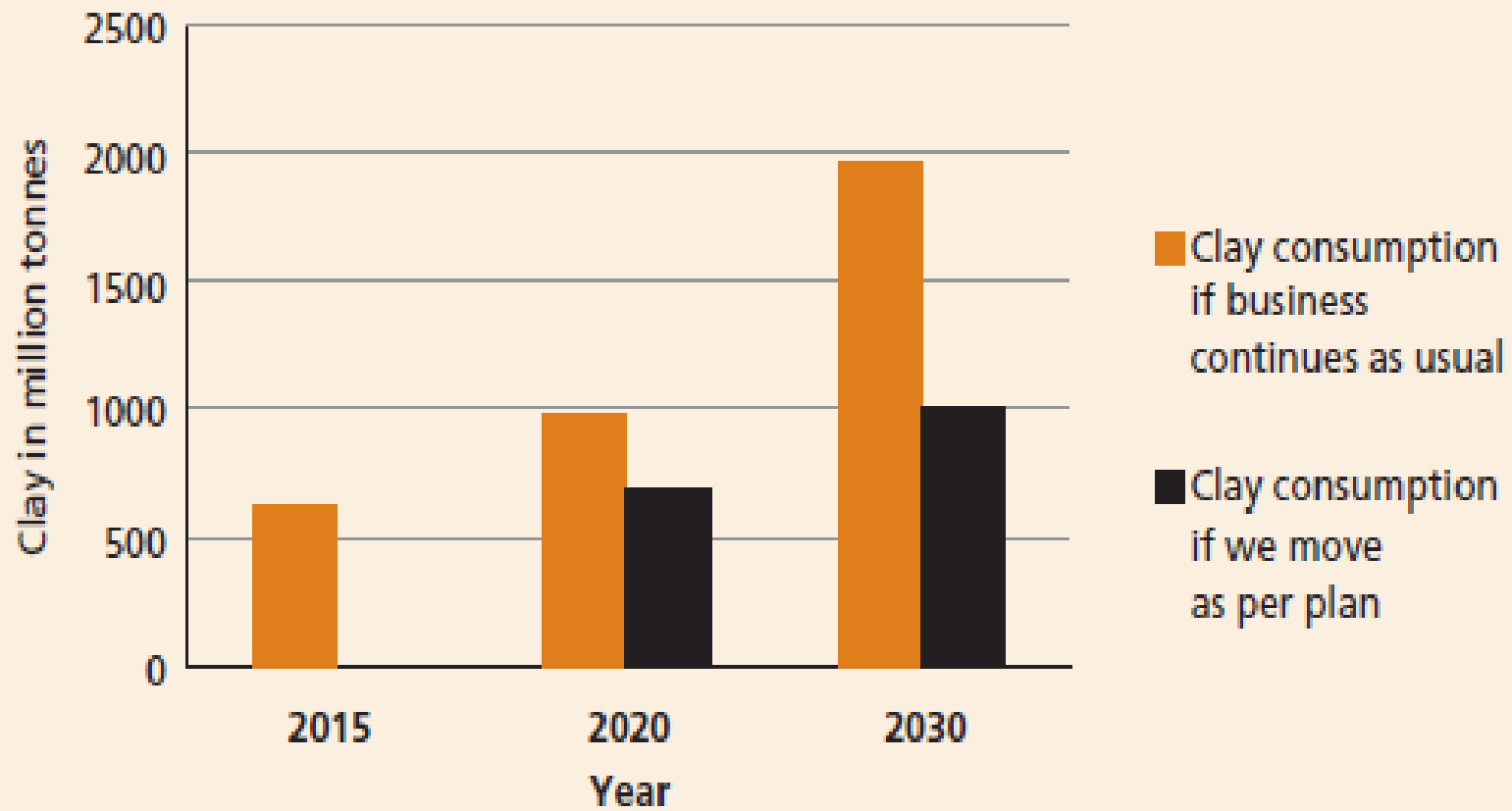
Emission *roadmap*





Expected results

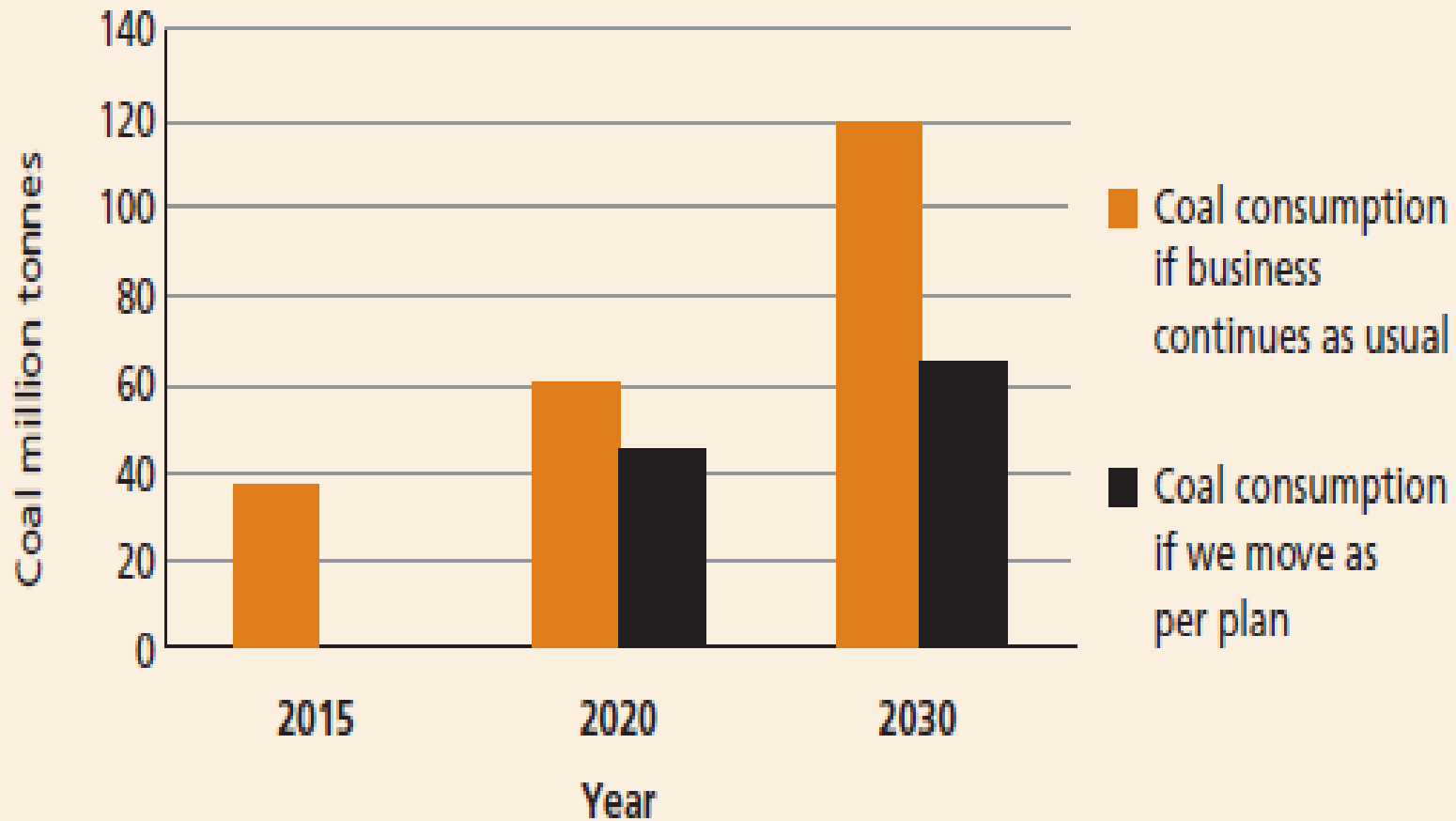
Reduction in clay consumption





Expected results

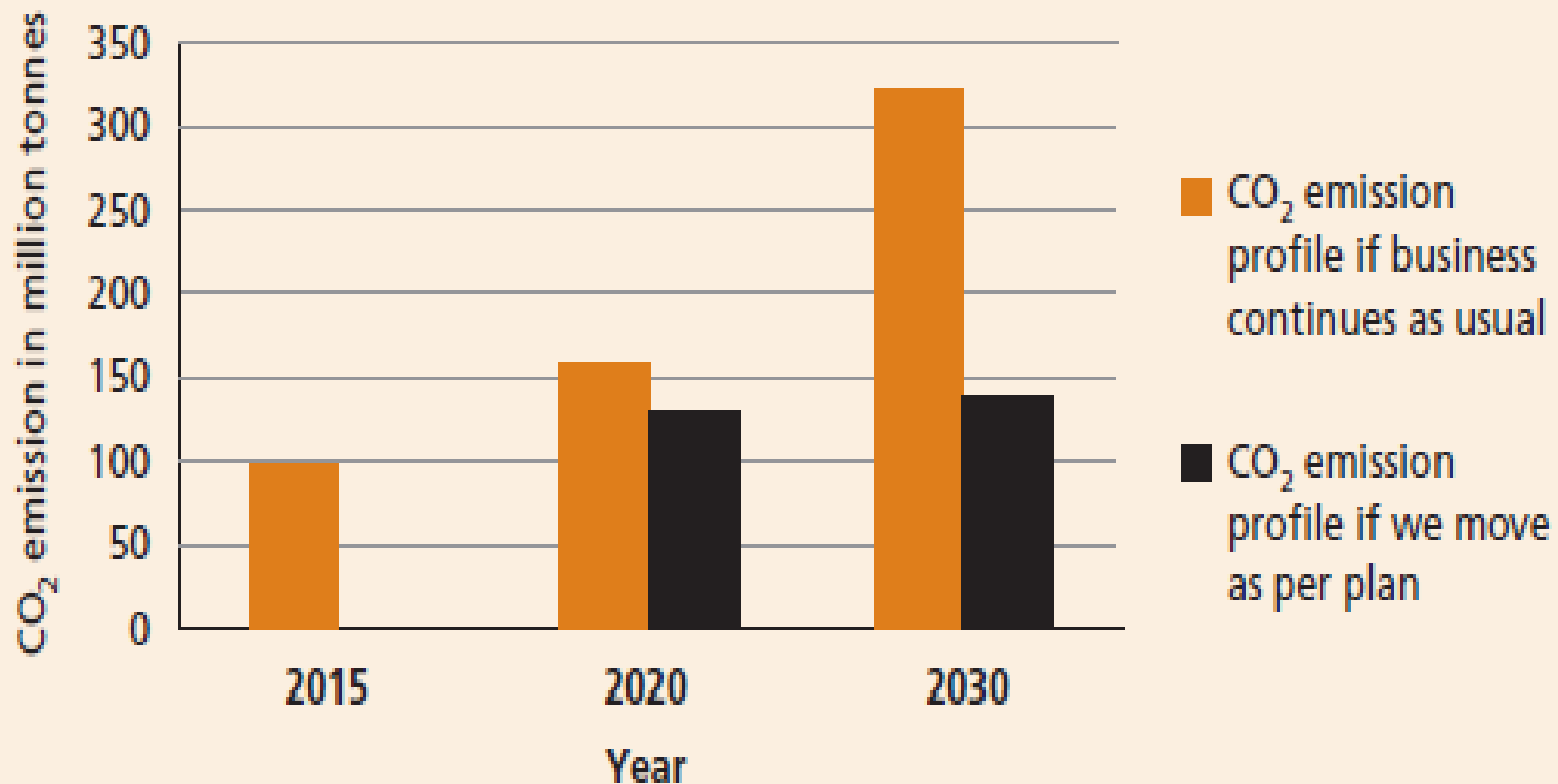
Reduction in coal consumption which can be achieved





Expected results

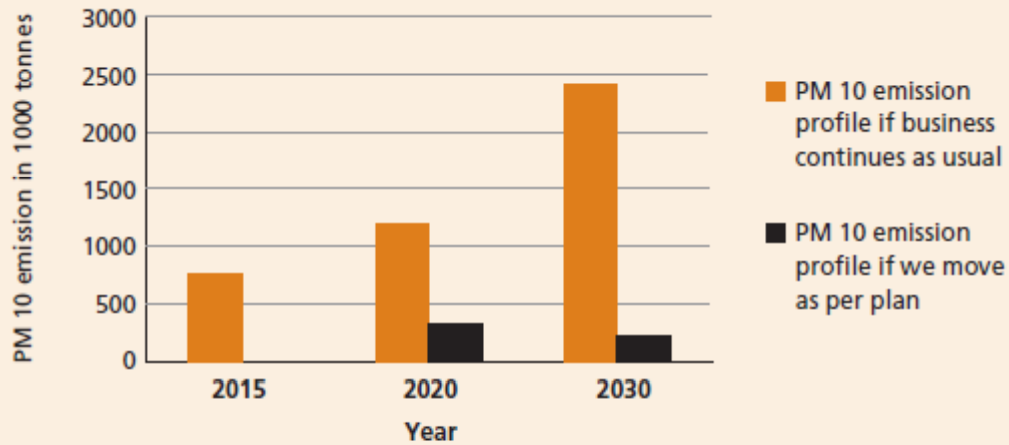
Reduction which can be achieved in CO₂ emission



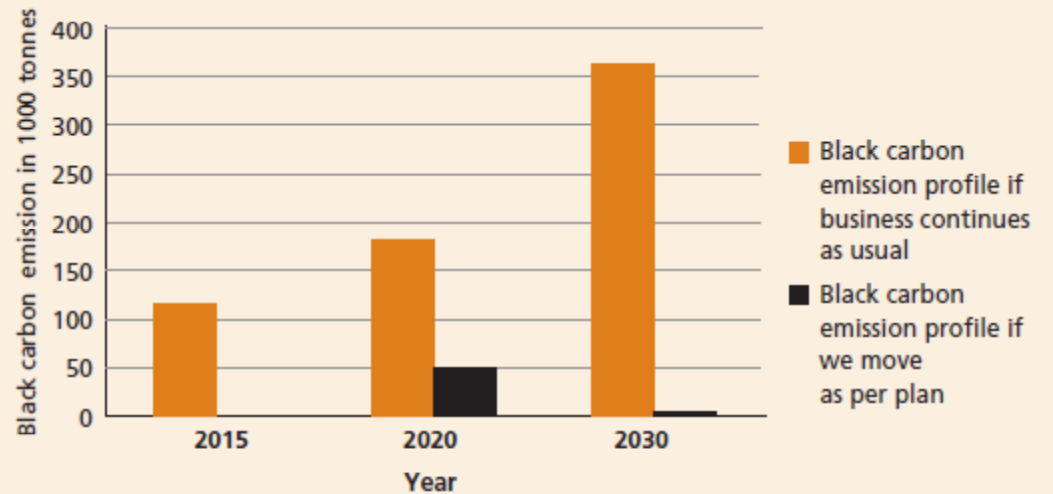


Expected results

Reduction in PM 10 emission



Reduction which can be achieved in black carbon emission





Architecture of the National Brick Mission

- a. Union Minister, Urban Development – Ex-Officio, Chairperson.
- b. Minister of State Finance – Ex-Officio, Member.
- c. Minister of State, Environment, Forest and Climate Change - Ex-Officio, Member.
- d. Member, Niti Ayog - Ex-Officio, Member.
- e. Minister of State, Rural Development - Ex-Officio, Member.
- f. Minister of State, housing and Poverty Alleviation – Ex-Officio, Member.
- g. Minister of State, Micro Small and Medium Enterprises – Ex-Officio, Members.
- h. Executive Director, Building Materials and Promotion Council - Ex-Officio, Member.
- i. Director General, Bureau of Energy Efficiency - Ex-Officio, Member.
- j. State Minister of Urban Development, Uttar Pradesh - Ex-Officio, Member.
- k. State Minister of Urban Development, Bihar - Ex-Officio, Member.
- l. State Minister of Urban Development, West Bengal - Ex-Officio, Member.
- m. State Minister of Urban Development, Tamil Nadu - Ex-Officio, Member.
- n. State Minister of Urban Development, Andhra Pradesh - Ex-Officio, Member.
- o. State Minister of Urban Development, Gujarat - Ex-Officio, Member.
- p. State Minister of Urban Development, Maharashtra - Ex-Officio, Member.
- q. Representative of R&D institutes of National Importance – Member, to be nominated by Central Government.
- r. Representative of Brick Kiln Manufacturing Association – Member.
- s. Secretary, Union Ministry of Urban Development – Member Secretary.



Architecture of the National Brick Mission

State level Brick Mission

- State government can constitute
- Chairman: State Urban Development Ministry
- Composition and Functions can be decided accordingly which assist in implementing clean technology for brick making at state level.



Knowledge portal

- No official data on number of kilns
- No information on best practices to improve
 - Efficiency
 - Reduce emission
 - Replace clay
- No database of consultant
- Research/training institute



Engagement of research institutes

- One-stop solution...
- Development of new technologies, retrofitting existing technologies, mechanization of existing kiln, clay alternatives
- Capacity building programme
- Mission will fund



Financial package

- **Two phase mission:**
 - Phase 1: 2016 - 2020
 - Phase 2: 2021 – 2030
- Fund required for phase 1: Rs 7,000 crore
- Fund required for phase 2: ?
- **Who will support the mission financially?**
 - National Clean Energy Fund
 - Ministry of Urban Development
 - Ministry of Industry
 -



Policy roadmap

- Ban construction of Fixed Chimney Bull's Trench Kiln or down-draught kiln
- Utilise **National Clean Energy Fund** for technology upgradation of existing kilns in next three-five years
- **Focus on clay alternatives:** Restrict bricks produced from agricultural soil and encourage utilisation of clay extracted by desilting/dredging of tanks, rivers and canals. Promote bricks made of industrial wastes such fly ash, marble slurry, etc
- **State level initiative:** Develop research and training institutes at the regional level to work directly with entrepreneurs to improve energy efficiency, reduce emissions and utilisation of waste to replace clay
- **Policy for construction activity by government department:** Policy by each department to increase consumption of brick made from waste.
- Policy for real estate player to replace traditional bricks with bricks made from alternate material starting from cities located within 50 km vicinity of thermal power plants
- **Promotion:** A campaign by Ministry of Urban development, Bureau of Energy Efficiency and Ministry of Environment, Forest and Climate Change for need of replacing traditional red bricks with hollow, perforated and bricks from alternate materials.