

A photograph of a brick kiln in Nepal. A tall, cylindrical chimney in the center is emitting a thick plume of black smoke that rises into a grey, overcast sky. In the foreground, there is a dirt road and a field of dry, yellowish-brown grass. To the right, a simple wooden fence is visible. In the background, several other brick kilns and industrial buildings are scattered across the landscape. The overall scene depicts an industrial site in a rural or semi-rural area.

Environmental Regulations- Brick Kilns in Nepal

Bhishma Pandit

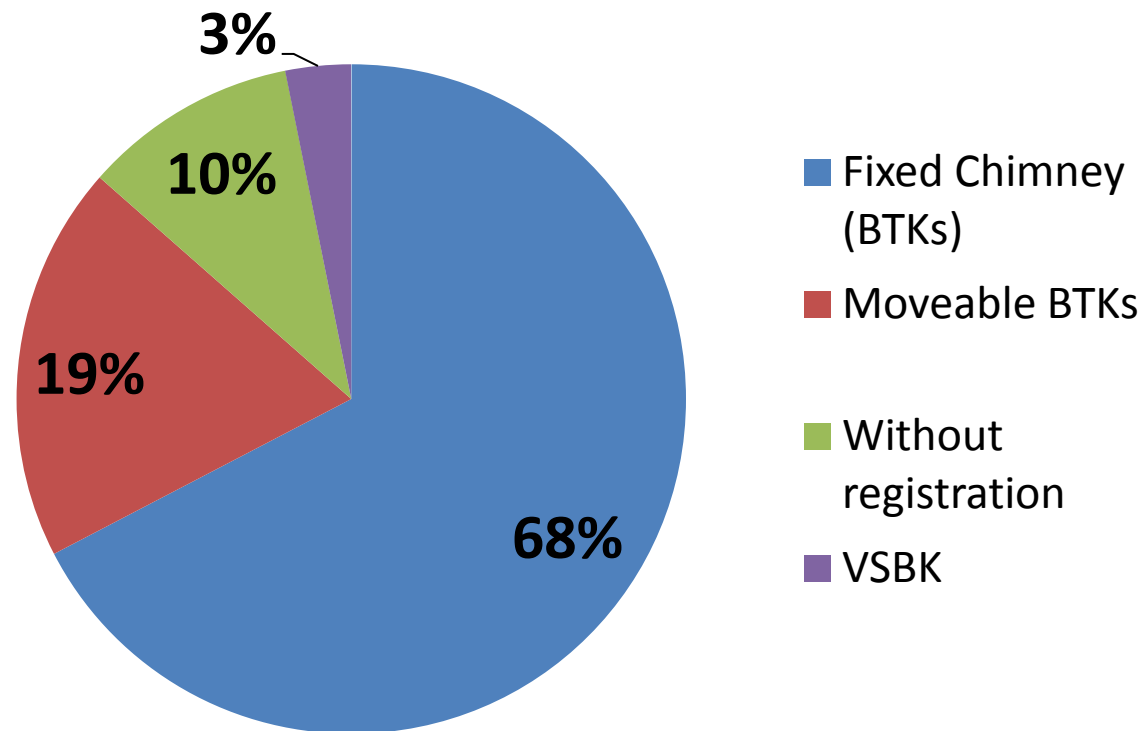
Parameter	Value
Number of Registered Establishments	429(826 FNBI)- 701 is operational – 553 fixed , 157 moveable, 85 without registration, 499 members
Quantity of Bricks Sold	753 million pieces
Value of Sales	2.3 billion Rupees
Persons Employed	42,003(139450- FNBI)
FNBI source	102620 Male, 36830 women
Value of Output	2.5 billion Rupees
Total Value Added	1.8 billion Rupees

Reference: CBS-2008

Indicators of Nepal's Brick Sector (Registered Establishments Only)

Number of Registered Kiln under Brick associations : 499(22 district)

other district where there is no associations, is assumed to be around 826(As per FNBI), 701 operational



Source : FNBI

Growth rate- 20%

Contents

- Departments
- Environmental provision for the registration
- Operational regulations
- Monitoring mechanisms & Limitations
- Barriers
- Way forwards



Department

- Registrations- Large brick kilns- Department of Industry- medium and small- Department of cottage & small scale industries- Ministry of Industries
- Environmental Monitoring – Department of Environment- Ministry of Environment, Science & Technology.
- Stack emission measurement capability- NBSM

History- Phasing out brick firing kilns

- **Moveable kilns BTKs phased out from year 2012 in Nepal.**
- **Moveable kilns BTKs phased out from Kathmandu valley in year 2004.**
- **Clamp kilns – Phased out from 2015- Rice husk fired clamp kilns- Running**

Environmental provision for registration

- IEE/EIA is essential for new kiln establishment
- Forest management- previously 5-km distance from forest- changed to now forest products will be used within the brick kilns
- There is no provision regarding top soil and soil mining within the brick industry

Operational regulations

	VSBK	Natural draught-BTK	Forced draft-BTK
Distance from Urban Area	500m	1km	1km
Minimum Land Requirement	100ft Radius	200ft Radius	200ft Radius
Distance from Forest	NA	1km	1km
Chimney Height	40ft	30m	17-30m*
SPM Emission Standard	400mg/Nm ³	700mg/Nm ³	700mg/Nm ³

Source: Environment Protection Regulation

Notes: * 17m for forced draught and 30m for natural draft

Mandatory ladder/hole/ station within the chimney

Monitoring mechanism and limitations

- Department of Environmental – Private companies/consultants- Outdated equipments- no measurement SOP/ protocol
- Around 700 kilns operation- 20-30 units measurements- random basis.
- Skilled manpower of emission measurements- Lab and equipments
- Two lab – accredited from NBSM

Barriers

- Coordination between departments- Random checking from environment department- Department of cottage & small scale industries
- Equipments for departments
- Manpower
- Penalty – low??
- Relocations from Kathmandu valley- Brick transportation from 200 km- Transportation emissions/ cost- road conditions- traffic management- Alternate building materials

Way forward

- **Integrated policy- Brick sector- Alternate bricks- building code.**
- **Equipments for departments/ Lab- pollution control board**
- **Manpower**
- **Clay -Mining approach and planning.**
- **Ambient air quality standards- Dust**
- **Relocations - transportations**





Thank you

panditbhishma@gmail.com

9801088900