

Energy Efficiency Programme for Small and Medium Enterprises (SMEs)



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India's MSME Sector: Context

The economic importance

1. The MSME (micro, small and medium enterprise) play a critical role in Indian economy by contributing to:
 - **45% of manufacturing output,**
 - **40% of exports**
 - **around 8% of GDP**
2. Largest employer after agriculture employing more than **80 million people**
3. MSMEs are organised in clusters across the country : Around **180 clusters** within **18 energy intensive sectors**

Energy context

1. In the 180 energy intensive MSME clusters, overall energy consumption is estimated to be 22.5 Mtoe per annum.
2. In 25 MSME cluster, studies have estimated potential of 15% reduction in energy consumption. This translates to:
 - **about 0.66 Mtoe annual energy savings**
 - **equivalent to a savings of INR 15.58 Million per annum(2.5 Million USD).**
3. Potential of up-scaling EE measures to all energy intensive MSME clusters.

Inherent Barriers

- **High transaction cost** - to shift to energy efficient technology/processes
- **Perceived risk** - of new technology adoption and change in production line
- **Capital cost** – financial health of MSMEs
- **Information failure** - inadequate data on unit level energy consumption, energy savings achieved till date from different interventions, and inadequate dissemination of knowledge

- ❖ BEE carried out Situation analysis in selected 25 SME clusters.
- ❖ Comprehensive energy audits and technology gap assessment completed in 25 SMEs clusters.
- ❖ 375 DPRs on energy efficient technologies prepared and peer-reviewed.
- ❖ National level Local Service Providers workshop in 25 SME clusters completed.
- ❖ Information Dissemination and awareness workshop in 51 SMEs clusters completed.
- ❖ Implementation of SGA in 9 units of 3 clusters.
- ❖ Energy saving potential of 0.66 MTOE in 25 SMEs clusters identified.
- ❖ The total energy savings, in from 988 units of 26 (25 clusters + Firozabad) cluster quantifies to Rs 15.58 Crores per annum (4934.45 toe/ annum) with an investment of Rs 28.06 Crores (4.52 Million USD)already made by the cluster units (988 units).

1. Implementation of Technology demonstration projects

- ❖ Demonstration of 10 best identified technologies of selected 5 energy intensive sectors namely Ceramic (Gujarat), Rice (Tamilnadu), Sponge Iron (Odhisal), Brick (UP) and Pali (Textile).
- ❖ 100 technology demonstration projects to be implemented in 5 sectors .

2. Technical Assistance and Capacity Building

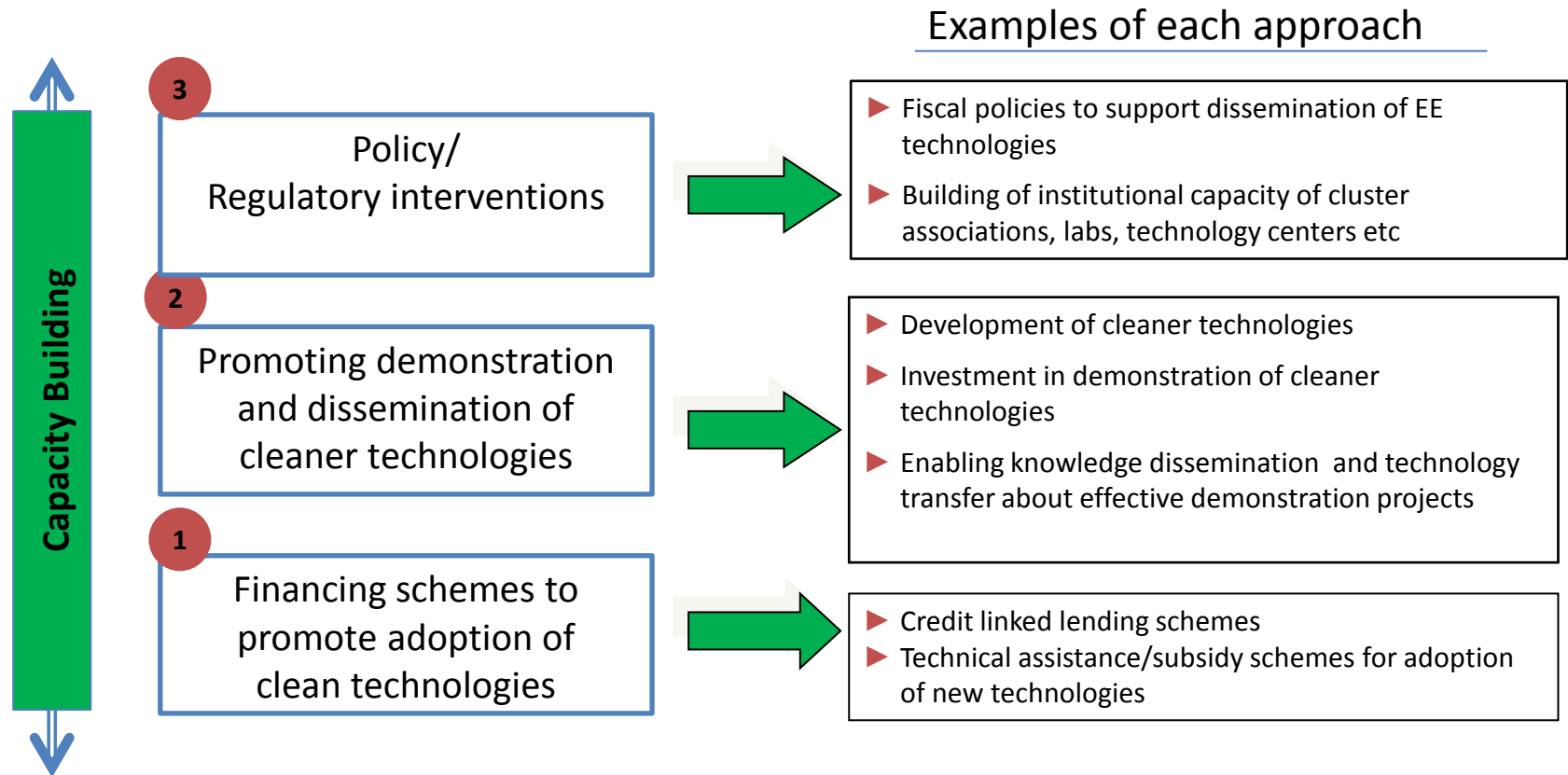
- ❖ Sharing of the BoP and BAT
- ❖ Development of case studies , print materials and audio visual of BATs& BOPs
- ❖ Capacity building in clusters through SDAs , National level workshops for stakeholders .

3. Mapping of the SMEs on pan India basis.

- ❖ Development of Pan India level Sector specific reports and policy plans .
- ❖ Launch of National Policy Document on Energy Efficiency in SMEs.

The estimated projected saving in the year 2016-17 of 12th Five Year Plan is 131MW .

Interventions to promote Energy Efficiency in SME in A Broad Overview



Financing schemes – Interventions and barriers

1

Financial Schemes Adopted

Interventions

- ▶ Between 2003 and till date, out of seven credit lines worth INR 51 Billion I, only 36% is utilized
 - ▶ *Equipment based lending proved to be successful in utilizing the credit line*
 - ▶ *Environment based lending scheme linked with mandatory regulations was utilized*
- ▶ Other financing schemes include:
 - ▶ *Direct Schemes for SME offering subsidized loans*
 - ▶ *Green Loan Schemes for MSMEs*
 - ▶ *Equity Assistance Scheme*
 - ▶ *Revolving fund for technology innovations*
- ▶ However limited information is available on the success stories of these schemes

Barriers

- ▶ For bankers, MSME finance involves low-value loans that carry as much processing costs as those incurred on high-value loans
- ▶ Lack of understanding of the credit officers about the various EE measures
- ▶ Lack of project based financing/other innovative credit rating schemes like the “Green Credit Rating” systems
- ▶ High non performing assets (NPAs) lead to reluctance amongst bankers to finance MSMEs
- ▶ Inability to customize schemes (cluster specific/blending financing schemes) to meet the differentiated needs of MSME cluster
- ▶ Lack of information about the energy savings resulting from the financial intervention

Promoting demonstration and dissemination of cleaner technologies- Interventions and barriers

Interventions

Barriers

2

Promotion of new technologies

- ▶ Interventions/programmes in 132 MSME clusters by various organisations, with emphasis on:
 - ▶ *Technology demonstration projects*
 - ▶ *Awareness building about EE technologies*
 - ▶ *Capacity Building of MSMEs and bankers about cleaner technologies*
 - ▶ *Detailed Energy Audit, DPR preparation*
 - ▶ *Cluster Benchmarking*
- ▶ Intervention resulted in large-scale dissemination in only a few instances :
 - ▶ *Chemical units in Ankleswar*
 - ▶ *Auto ancillaries in Pune*
 - ▶ *Glass cluster in Firozabad*
 - ▶ *Foundry clusters of Punjab, Howrah and Haryana*

- ▶ Lack of dissemination of technology knowhow/performance in other similar clusters
- ▶ Lack of collaboration between units and technology development institutions/organisations to develop cleaner technologies
- ▶ Transaction costs including costs of IPR and O&M services deter marketing and adoption of cleaner technologies
- ▶ Lack of energy efficiency benchmark in MSME sector.
- ▶ Inadequate training in operation of new technologies especially of operator level staff
- ▶ Lack of customized/appropriate business models for different kinds of technologies for different clusters
- ▶ Reluctance of MSME unit in sharing information about successful interventions with competitors

Policy/Regulatory – Interventions and barriers

Interventions

Barriers

3

Policy/Regulatory interventions

- ▶ Judicial intervention resulted in successful outcomes in the Taj Trapezium cluster and Howrah cluster
- ▶ Different government subsidy programs* which are undertaken so far to promote EE:
 - Credit Linked Capital Subsidy Schemes (CLCSS)
 - Technology Up gradation Fund Scheme (TUFS) for Textiles and Jute industries
 - Integrated Development of Leather Sector Schemes
 - Technology up gradation / setting up/ modernization/expansion of food processing industries
 - Technology and Quality up gradation support to MSME (TEQUP)

- ▶ Existing policies do not address ‘inclusive’ programmes/schemes (combination of educating the end-users about energy efficiency techniques and awareness among financial institutions)
- ▶ Lack of coordination between different line ministries in the design of programs
- ▶ Lack of programs helping to facilitate setting up of material/product testing laboratories and Research & Development (R&D) facilities in major clusters
- ▶ Focused attention on any particular sectors/clusters leads to ignoring other energy intensive clusters/sectors

Thank You

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