

# Energy Efficiency in MSMEs - Barriers and opportunities



# OVERVIEW OF INDIAN MSME SECTOR



- 63 Million MSMEs
- 2<sup>nd</sup> largest employer after agriculture.

## Value addition to economy:

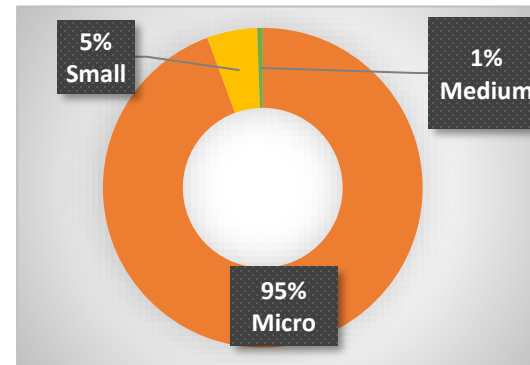
- (a) 45% of total manufacturing output,
- (b) 8% contribution to GDP,
- (c) >8000 products manufactured,
- (d) 40% of total exports.

## MSME Traits

- Family Run Businesses
- Single Man Show
- Conventional Process and Technologies
- Unskilled/ Semi-skilled Manpower
- Business Continuity Focus

## MSME Classification

Category	Investment in equipment (INR Cr./ million USD)	Turnover (INR Cr./ million USD)
Micro	1 (0.13)	5 (0.67)
Small	10 (1.3)	50 (6.67)
Medium	50 (6.67)	250 (33.33)



600+ industrial MSME clusters and 7,000+ artisan/micro enterprise clusters in India

# Climate Change Impact on MSMEs

- India is the **seventh-most vulnerable country** with respect to **climate extremes**. Above 80% of Indians live in districts vulnerable to climate risks.
- India ranked the lowest among 180 countries in Environmental Performance Index, 2022.
- Vulnerable sectors- **Textile, Leather, Food processing, Fisheries, Chemical, Pharma, Wood, Paper, etc.,**

## ❖ Indian MSMEs stand at the forefront of climate change crisis, facing multiple challenges

- **Direct impacts** like damage to physical assets of a business, such as buildings, machinery and equipment or other vital infrastructure
- **Indirect impacts** like changes in the business environment, new regulations, availability of resources, change in demand and supply



# MSME Industrial Clusters

## 88 industrial clusters present a bleak picture of air, water and land contamination.

EDITION IN CHENNAI 29°C

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NEWS / INDIA NEWS / India's 88 Industrial Clusters Present A Bleak Picture Of Air, Water A...

THIS STORY IS FROM FEBRUARY 26, 2021

### India's 88 industrial clusters present a bleak picture of air, water and land contamination, says CSE report

Vishwa Mohan / TNN / Feb 26, 2021, 09:38 IST

TIMESPOINTS SHARE AA

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Representative image

NEW DELHI: An evaluation of 88 clusters, identified by central and state pollution control boards (CPCB and SPCBs) as [polluted industrial areas](#), has thrown up a



### Most polluted clusters

- Tarapur (Maharashtra)
- Mathura (UP)
- Moradabad (UP)
- Vadodara (Gujarat)
- Najafgarh (Delhi)
- Kanpur (UP)
- Varanasi-Mirzapur (UP)

## Moradabad Air Pollution: Air pollution graph rises in Moradabad, city falls into red zone, the figure crosses 300

Author: Ravi Mishra  
Publish Date: Fri, 19 Nov 2021 05:52 PM (IST)  
Updated Date: Fri, 19 Nov 2021 05:52 PM (IST)



Moradabad Air Pollution On Thursday, the pollution level in the city stood at 312 am and 296 at 5 pm according to the Indian Air Index. Brass furnaces around The Barbalan Tenth Ghat Lalbagh in the city are spewing venom. Those who were given a notice for the food.

**Moradabad, Jn. Moradabad Air Pollution:** On Thursday, the pollution

# Challenges for low carbon transition - MSME

***MSMEs contributing to climate change as well as are vulnerable to its risks.***

- MSMEs consumes about 25% of the total energy consumed by industries in India,
- Around 400 Energy Intensive Clusters
- Energy Saving Potential as per sector dynamics ranges from 5% to 30%,
- Potential of GHG abatement of around 17 Million Ton CO<sub>2</sub>eq. per annum
- Cumulative investments of USD 10.1 trillion required to decarbonize India's power, industrial, and transport sectors to achieve net-zero emissions by 2070 (CEEW)
- Energy Efficiency (EE) Financing Gap of Rs. 90,000 Crore

Lack of awareness & inadequate technology level

Limited access to modern technologies

High transaction cost and longer gestation period for Low Carbon technologies

Cost of Capital and its availability for MSMEs to deploy in Green initiatives

Perceived Risk of FIs in lending to MSMEs in climate technologies

# Partial Risk Sharing Facility for Energy Efficiency

\$37 million facility capitalized by GEF & CTF. SIDBI is the implementing entity.

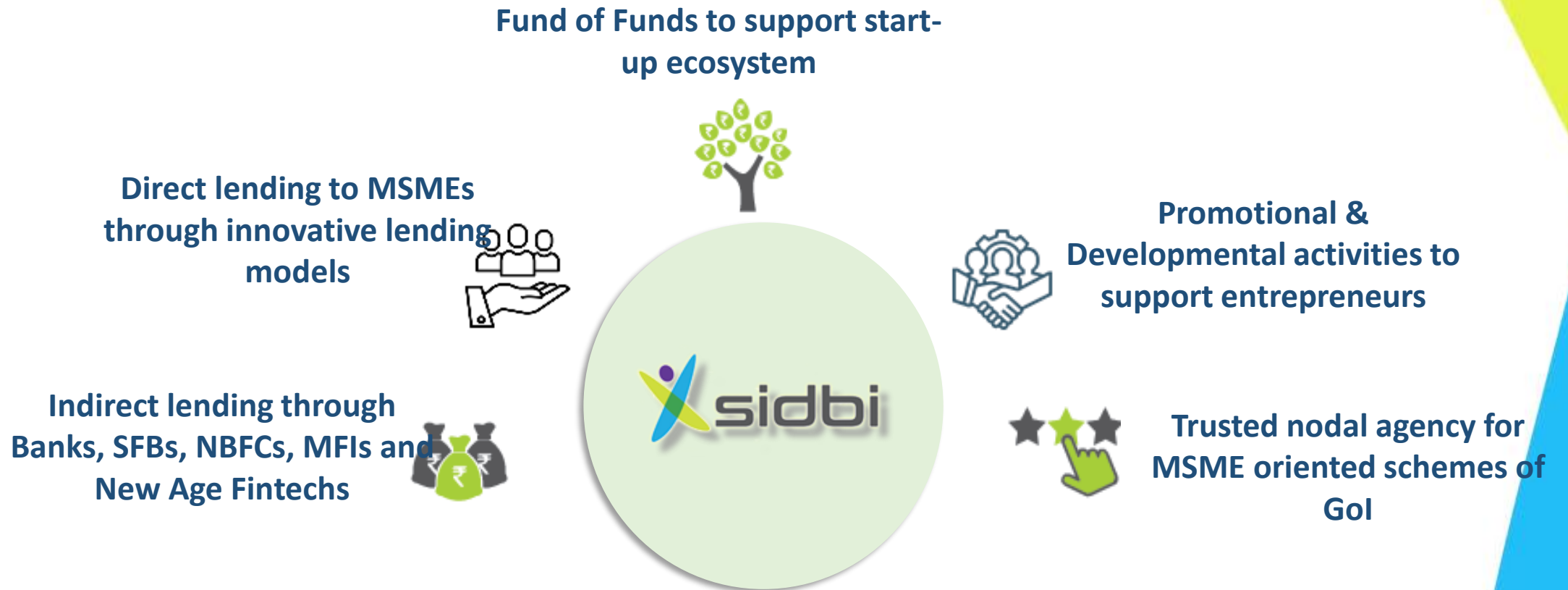
## Achievements

- Supported 76 energy efficiency ESCO led projects of USD 125 million
- 16 guarantees have been successfully closed till date – No claims till date
- Partnered with 14 Banks/NBFCs
- Awareness & Sensitization on ESCOs to financial institutions: Trained 2000+ bank officials, Reached out to 100+ ESCOs, 5000+ energy professionals, 10,000+ MSMEs
- Energy Savings – 371 GWh/Yr
- Annual emission reduction - 0.284 Mn tCO<sub>2</sub>



# About SIDBI- Serving the MSME Mandate

- Established under an Act of the Parliament in 1990
- DFI engaged in promotion, financing & development of MSMEs



# Sustainability Highlights

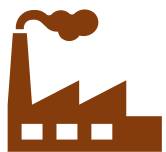


**Green Loans,  
\$ 1.7 billion**



Sanctioned under LoC from  
Multilateral's/Bilateral's

**100 Clusters**



**52000 MSMEs**



**>2 million tCO<sub>2</sub>e**



**>40,000 trees  
planted**



PROJECT SIGNATURE"- Ladakh

**650 Sanitation &  
Hygiene Entrepreneurs**



Sanitation & Hygiene  
Entrepreneurs (SHEs)

**65 lakh sanctions  
amounting Rs 6,500 crore**



PMSVANidhi

**4,215 bamboo  
artisans**



EU Switch Asia Bamboo  
Project

**Adoption of 120 villages**



Swavalamban Assistance for  
Financial Literacy, SAFAL

**1,000-plus enterprises  
with 36% women led**



Swavalamban Connect  
Kendras

**>27,000  
Homepreneur**



Silai Schools  
opened in 2700  
villages

**1,640-plus Bank  
Sakhis**



Bank Sakhi Programme

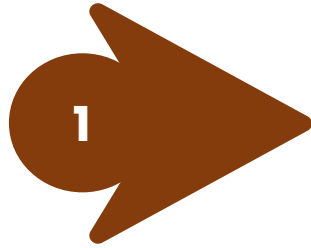
**30 plastic bottle recycling  
machine**



Swatch Bharat and  
Swavalambi Bharat

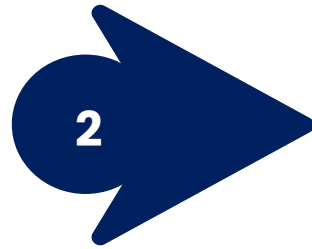


# Mission Greening the Nation



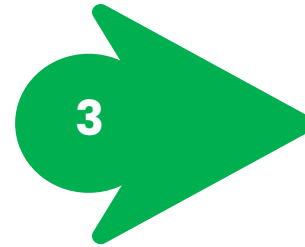
## 2500 Solar Rooftop

*Installation of Solar Rooftops in 2500 MSMEs for captive consumption*



## 50K EV4ECO

*Supporting EV market - aligned to GoI EV30@30 Mission*



## 2000 Cr EE

*Mobilizing EE investment in MSME sector contributing to GHG Emission reduction*



## Waste 2 EnvttTaste

*Supporting technology interventions for transitioning Waste to Wealth*



## Nurture & Nature

*Nurturing the nature through technology basket, promoting innovative technologies*

# Green Inclusivity (GRiT)

*making Artisan's life healthy, increase in income, enhance livelihood through clean operations*

## Micro Cluster Engagement Program

**FY23→10 FY24→25 FY 25→50**

### Kota

- Stone, Textile, Engg, Food, pharma
- >1000 MEs, IAs, reached
- DEA – 75
- EE & Solar Rooftop Installation

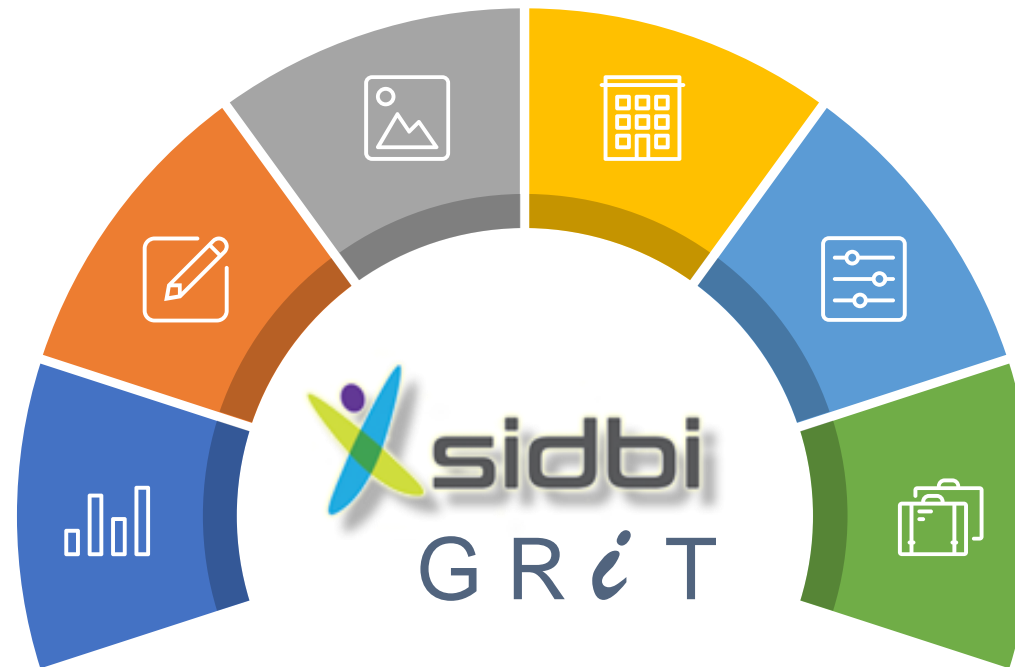
### Bihar

- >1000 MEs, IAs, reached
- DEA - 100
- EE Intervention & Solar Rooftop Installation

### Tirupur

- Dyeing Cluster
- >300 MEs, IAs
- DEA- 150 target

Next Level ESCO Engagement for Micro Clusters  
Demo. of Green Interventions through ESCO Route



### Moradabad

- Brass Cluster
- ESCO Engagement
- Replacing 100 CFF with GFF
- 10 Implemented

### Jalandhar

- Handtool Cluster
- >500 MSEs
- DEA – 100 target

### Belgaum

- Foundry Cluster
- >150 MSEs
- DEA – 100 target

Cluster Adoption

EE Area Identification

Implementation & Demo

*“Mātā bhūmi putro aham pṛthivyāḥ!  
The Earth is my mother and I am her child!”*

..... Atharva Veda (12.1.12)

**Thank you**

